CLC CENTRAL LAKES COLLEGE

Academic Catalog 2020-22

CLC CENTRAL LAKES COLLEGE

2020-2021 Program Planning Forms

Central Lakes College, Brainerd Campus 2020-2021

Liberal Arts and Sciences A.A.

Associate of Arts Degree (AA)

MN Transfer Curriculum 40
Fitness for Life/Student Success 3
Electives 17
Total Credits 60

Program Description

An Associate of Arts Degree earned at Central Lakes College is recommended as the transfer degree that enables a student to transfer to a Minnesota four-year college or university. Through special agreements, the A.A. Degree, in most cases, allows a student to continue with a "junior status" at the selected state university. Included in the Associate of Arts Degree is the MINNESOTA TRANSFER CURRICULUM which contains the minimum number of credits (40) needed to complete general education requirements at all public colleges and universities in the state of Minnesota.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs.

Graduation Requirements

- These requirements apply to new students, and students who have been absent from this college one academic year or longer.
- At least one semester before you plan to graduate, complete an Application to Graduate.
- A total of 60 college level credits with a cumulative GPA of 2.0 or higher are required for an Associate of Arts Degree.
- A cumulative GPA of 2.0 or higher in all Minnesota Transfer Curriculum courses is required to complete the MnTC.
- 15 credits must be earned at Central Lakes College to be eligible for an Associate of Arts Degree.
- Classes may meet requirements for more than one goal area, but credit will not be awarded for any course twice.

Program Course Requirements

MnTC GOAL 1 – Communications (9-11 credits)
ENGL 1410 Composition I OR
ENGL 1420 Honors Composition I ..... 4 cr
ENGL 1411 Composition II OR
ENGL 1421 Honors Composition II ..... 4 cr
Additional Goal 1 course ..... 1-3 cr

MnTC GOAL 2 – Critical Thinking (1 course)
All Goal 2 courses "double-dip" and meet requirements in another MnTC Goal Area ..... 3-4 cr

MnTC GOAL 3 – Natural Sciences (6 credits)
Courses from two disciplines are recommended; one analytical lab course is required ..... 6 cr

MnTC GOAL 4 – Math/Logical Reasoning (3 credits)
Goal 4 course(s) ..... 3-5 cr

MnTC GOAL 5 – History/Social Behavioral Sciences (9 cr)
Courses from two disciplines are required; three disciplines are recommended ..... 9 cr

MnTC GOAL 6 – Humanities and Fine Arts (9 credits)
Courses from two disciplines are required; three disciplines are recommended ..... 9 cr

MnTC GOAL 7 – Human Diversity (1 course)
One Goal 7 course ..... 3 cr

MnTC GOAL 8 – Global Perspective (1 course)
One Goal 8 course ..... 3-4 cr

MnTC GOAL 9 – Ethic and Civic Responsibility (1 course)
One Goal 9 course ..... 3-4 cr

MnTC GOAL 10 – People and the Environment (1 course)
One Goal 10 course ..... 1-4 cr
If you fulfill the 10 goal areas in fewer than 40 credits, select courses from any goal area to achieve the 40 credit total.

Fitness for Life (2 credits)
Fitness for Life course(s) ..... 2 cr

Student Success (1-3 credits)
Student Success course(s) ..... 1-3 cr

Electives (15-17 credits)
General Elective course(s) ..... 15-17 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Program Course Planner

GOAL 1 – Communications (9-11 credits)
ENGL 1410 Composition I OR
ENGL 1420 Honors Composition I..... 4 cr
ENGL 1411 Composition II OR
ENGL 1421 Honors Composition II..... 4 cr
Additional Goal 1 course:

_____

GOAL 2 – Critical Thinking (1 course)
All Goal 2 courses "double-dip" and meet requirements in another MnTC Goal Area.

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GOAL 3 – Natural Sciences (6 credits)
Courses from two disciplines are recommended; one analytical lab course is required.

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GOAL 4 – Math/Logical Reasoning (3 credits)

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GOAL 5 – History/Social Behavioral Sciences (9 cr)
Courses from two disciplines are required; three disciplines are recommended.

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GOAL 6 – Humanities and Fine Arts (9 credits)
Courses from two disciplines are required; three disciplines are recommended.

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GOAL 7 – Human Diversity (1 course)

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GOAL 8 – Global Perspective (1 course)

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GOAL 9 – Ethic and Civic Responsibility (1 course)

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GOAL 10 – People and the Environment (1 course)

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If you fulfill the 10 goal areas in fewer than 40 credits, select courses from any goal area to achieve the 40 credit total.

Fitness for Life (2 credits)

_____

Student Success (1-3 credits)

_____

General Electives (15-17 credits)

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GRADUATION REQUIREMENT – 60 CREDITS

GOAL 1 - Communications (9-11 credits)

Both ENGL 1410 (or ENGL 1420) and ENGL 1411 (or ENGL 1421) are required. Students must select on additional Goal 1 course.

AMSL 1420 American Sign Language Cultural Immersion Travel (2 cr)	***1,8***	AMSL 2414 Conversational ASL (1 cr)	***1***
COMM 1410 Introduction to Communication (3 cr)	***1***	COMM 1420 Interpersonal Communication (3 cr)	***1***
COMM 1422* Honors Interpersonal Communication (3 cr)	***1***	COMM 1430 Public Speaking (3 cr)	***1,2***
COMM 2420 Intercultural Communication (3 cr)	***1,7***	COMM 2422* Honors Intercultural Communication (3 cr)	***1,7***
ENGL 1410 Composition I (4 cr)	***1***	ENGL 1411 Composition II (4 cr)	***1***
ENGL 1420* Honors Composition I (4 cr)	***1***	ENGL 1421* Honors Composition II (4 cr)	***1,9***
ENGL 1422 Practical Writing (3 cr)	***1,2***	PHIL 1421 Critical Thinking (3 cr)	***1,2***
PHIL 1422* Honors Critical Thinking (3 cr)	***1,2***	THTR 1461 Acting I (3 cr)	***1***

GOAL 2 - Critical Thinking (1 course)

COMM 1430 Public Speaking (3 cr)	***1,2***	COMM 1450 Introduction to Mass Communication (3 cr)	***2,9***
ENGL 1422 Practical Writing (3 cr)	***1,2***	ENGL 2450 World Literature (3 cr)	***2,8***
GEOG 1430 Introduction to Geographic Information Systems (3 cr)	***2,5***	MATH 1461* Honors Introduction to Statistics (4 cr)	***2,4***
PHIL 1417 Immortality and the Afterlife (3 cr)	***2,6***	PHIL 1421 Critical Thinking (3 cr)	***1,2***
PHIL 1422* Honors Critical Thinking (3 cr)	***1,2***	PHIL 1460 Logic (3 cr)	***2,4***
PHIL 2410 Introduction to Philosophy (3 cr)	***2,6***	PSYC 2421 General Psychology (4 cr)	***2,5***
PSYC 2423* Honors General Psychology (4 cr)	***2,5***	SOCL 1401 Introduction to Sociology (3 cr)	***2, 5***

GOAL 3 - Natural Sciences (6 credits)

Two science courses from two different disciplines are recommended, including one required analytical lab course. BIOL 1420, ESCI 1400, ESCI 1444 and ESCI 1451 do NOT include required lab components.

BIOL 1404 Human Biology (3 cr)	***3***	BIOL 1411 Concepts of Biology (3 cr)	***3***
BIOL 1415 Environmental Biology (4 cr)	***3,10***	BIOL 1420 Nutrition (3 cr)	***3***
BIOL 1431 General Biology I (5 cr)	***3***	BIOL 1432 General Biology II (5 cr)	***3,10***
BIOL 2411 Biology of Women (3 cr)	***3,7***	BIOL 2415 General Ecology (4 cr)	***3,10***
BIOL 2420 Genetics (4 cr)	***3***	BIOL 2457 Microbiology (4 cr)	***3***
BIOL 2467 Anatomy & Physiology I (4 cr)	***3***	BIOL 2468 Anatomy & Physiology II (4 cr)	***3***
CHEM 1407 Life Science Chemistry (4 cr)	***3***	CHEM 1410 Environmental Chemistry (3 cr)	***3,10***
CHEM 1414 Fundamentals of Chemistry (4 cr)	***3***	CHEM 1424 Chemical Principles I (5 cr)	***3***
CHEM 1425 Chemical Principles II (5 cr)	***3***	CHEM 2472 Organic Chemistry I (5 cr)	***3***
CHEM 2473 Organic Chemistry II (5 cr)	***3***	ESCI 1400 Geology of National Parks (3 cr)	***3,10***
ESCI 1405 Astronomy (4 cr)	***3***	ESCI 1421 Minnesota Geology (3 cr)	***3***
ESCI 1444 Natural Disasters (3 cr)	***3,10***	ESCI 1451 Oceanography (3 cr)	***3,10***
ESCI 1452 Oceanography Lab (1 cr)	***3,10***	ESCI 1454 Planet Earth (4 cr)	***3,10***
ESCI 1455* Honors Earth Science and the Environment (4 cr)	***3,10***	ESCI 1460 Exploring the Edge of Space (3 cr)	***3***
ESCI 1461* Honors Exploring the Edge of Space (4 cr)	***3***	ESCI 1480 Flight to Edge of Space: Learning and Experimentation (2 cr)	***3***
PHYS 1401 College Physics I (4 cr)	***3***	PHYS 1402 College Physics II (4 cr)	***3***
PHYS 1407 Principles of Physics (3 cr)	***3***	PHYS 1411 Classical Physics I (5 cr)	***3***
PHYS 1412 Classical Physics II (5 cr)	***3***	PHYS 1425* Honors Astronomy/Physics (4 cr)	***3***
PHYS 1430 Concepts of Physics: A Universe of Hidden Charm (3 cr)	***3***	PHYS 1480 Flight to Edge of Space: Electronic, Mechanical, and Navigational Systems (2 cr)	***3***

GOAL 4 - Mathematical or Logical Reasoning (3 credits)

MATH 1441 Concepts in Mathematics (3 cr)	***4***	MATH 1460 Intro to Statistics (4 cr)	***4***
MATH 1461* Honors Introduction to Statistics (4 cr)	***2,4***	MATH 1470 College Algebra (3 cr)	***4***
MATH 1472 Precalculus (5 cr)	***4***	MATH 1477 Calculus I (5 cr)	***4***
MATH 1478 Calculus II (5 cr)	***4***	MATH 1480* Honors Calculus I (5 cr)	***4***
MATH 2457 Linear Algebra (3 cr)	***4***	MATH 2458 Multivariable Calculus (4 cr)	***4***
MATH 2459 Differential Equations (4 cr)	***4***	PHIL 1460 Logic (3 cr)	***2,4***

****Honors courses***

GOAL 5 - History and Social and Behavioral Sciences (9 credits)

Students are required to complete courses from a minimum of two different disciplines; however, three different disciplines are recommended.

ANTH 1457 Cultural Anthropology (3 cr)	***5,8***	ANTH 2411 Cultures of American Indians (3 cr)	***5,7***
ECON 1450 The American Economy (3 cr)	***5***	ECON 1451* Honors American Economy (3 cr)	***5***
ECON 2401 Principles of Economics-Macroeconomics (3 cr)	***5***	ECON 2402 Principles of Economics-Microeconomics (3 cr)	***5***
ENVR 1400 Introduction to Environmental Studies (3 cr)	***5,10***	GEOG 1400 Physical Geography (3 cr)	***5,10***
GEOG 1410 Maps and Places (3 cr)	***5,8***	GEOG 1421 World Regional Geography (3 cr)	***5,8***
GEOG 1430 Introduction to Geographic Information Systems (3 cr)	***2,5***	GEOG 1459 Cultural Geography (3 cr)	***5,8***
GEOG 1460* Honors Cultural Geography (3 cr)	***5,8***	GLST 1401 Introduction to Global Studies (3 cr)	***5,8***
GLST 1491 Global Studies Experience - International Travel (1-4 cr)	***5,8***	HIST 1412 World History I, From the Beginning to 1500 (3 cr)	***5,8***
HIST 1413 World History II, 1500 to Present (3 cr)	***5,8***	HIST 1472 U.S. History to 1865 (3 cr)	***5,7***
HIST 1473 U.S. History Since 1865 (3 cr)	***5,7***	HIST 1475* Honors U.S. History 1865 to Present (3 cr)	***5,7***
HIST 2404 Minnesota History (3 cr)	***5***	HIST 2411 American Indian History (3 cr)	***5,7***
HIST 2420 History of Women in the U.S. (3 cr)	***5,7***	POLS 1430 Introduction to Political Science (3 cr)	***5,9***
POLS 1435 American Government and Politics (3 cr)	***5,9***	POLS 1439 State and Local Government (3 cr)	***5,9***
POLS 1440 Society and Law (3 cr)	***5,9***	POLS 2401 Federal Indian Policy (3 cr)	***5***
POLS 2402 Tribal Government (3 cr)	***5,9***	POLS 2450 International Relations (3 cr)	***5,8***
PSYC 1423 Positive Psychology: The Science of Well-Being (3 cr)	***5,9***	PSYC 1425 Environmental Psychology (3 cr)	***5,10***
PSYC 2421 General Psychology (4 cr)	***2,5***	PSYC 2423* Honors General Psychology (4 cr)	***2,5***
PSYC 2427 Statistics for Psychology (4 cr)	***5***	PSYC 2431 Human Development (3 cr)	***5***
PSYC 2435 Educational Psychology (3 cr)	***5,7***	PSYC 2441 Social Psychology (3 cr)	***5,7***
PSYC 2470 Abnormal Psychology (3 cr)	***5,7***	SOCL 1401 Introduction to Sociology (3 cr)	***2, 5***
SOCL 1403* Honors Introduction to Sociology (3 cr)	***5,8***	SOCL 1472 Sociology of the Family (3 cr)	***5***
SOCL 2405 Criminology (3 cr)	***5***	SOCL 2411 Social Problems (3 cr)	***5,9***
SOCL 2422 Culture and Environment (3 cr)	***5,10***	SOCL 2480 Sociology of Death and Dying (3 cr)	***5***
SOCL 2481 Race, Ethnicity and Oppression (3 cr)	***5,7***	SPAN 2420 Many Faces of Mexico (3 cr)	***5,7***
SPAN 2425 Cultures of Latin America (3 cr)	***5,8***	THTR 2450 Theatre History (3 cr)	***5,8***
WMST 1400 Introduction to Women's Studies (3 cr)	***5,7***	WMST 2420 Women & Religion (3 cr)	***5,7***

GOAL 6 - Humanities and Fine Arts (9 credits)

Students are required to complete courses from a minimum of two different disciplines; however, three different disciplines are recommended.

AMSL 2420 Deaf Culture (3 cr)	***6,7***	ARTS 1401 Black and White Photography (3 cr)	***6***
ARTS 1403 Color Photography (3 cr)	***6***	ARTS 1420 The Art of Digital Photography (3 cr)	***6***
ARTS 1422 Introduction to Cinematography (3 cr)	***6***	ARTS 1425 Introduction to Graphic Design (3 cr)	***6***
ARTS 1458 Introduction to Drawing (3 cr)	***6***	ARTS 1459 2-D Design (3 cr)	***6***
ARTS 1461 3-D Design (3 cr)	***6***	ARTS 1468 Introduction to Painting (3 cr)	***6***
ARTS 1470 Art Appreciation (3 cr)	***6***	ARTS 1487 Ceramics: Beginning Hand Building (3 cr)	***6***
ARTS 1488 Ceramics: Beginning Throwing (3 cr)	***6***	ARTS 1489 Intermediate Ceramics (3 cr)	***6***
ARTS 2411 Introduction to Digital Imaging (3 cr)	***6***	ARTS 2486 Art History/Ancient (3 cr)	***6***
ARTS 2487 Art History/Modern (3 cr)	***6***	ENGL 1450 Introduction to Humanities (3 cr)	***6,8***
ENGL 1452 Classical Mythology (3 cr)	***6***	ENGL 1454 Film Appreciation (3 cr)	***6***
ENGL 1456 Environmental Literature (3 cr)	***6,10***	ENGL 1460* Honors Literature: The Great Books (3 cr)	***6***
ENGL 1463 Introduction to Literature (3 cr)	***6,7***	ENGL 1468 Poetry (3 cr)	***6***
ENGL 1470 Introduction to Science Fiction and Fantasy Literature (3 cr)	***6,9***	ENGL 1477 Authors in Focus (1-3 cr)	***6***
ENGL 1478 Authors in Focus (1-3 cr)	***6***	ENGL 2451 Women in Literature (3 cr)	***6***
ENGL 2455 Native Indian Literature (3 cr)	***6,7***	ENGL 2460 Survey of American Literature (3 cr)	***6,7***
ENGL 2470 Creative Nonfiction (3 cr)	***6***	ENGL 2483 Creative Writing (3 cr)	***6***
GERM 2401 Intermediate German I (4 cr)	***6,8***	GERM 2402 Intermediate German II (4 cr)	***6,8***
MUSC 1403 American Popular Music (3 cr)	***6,7***	MUSC 1405 Central Lakes Jazz Orchestra (0-1 cr)	***6***
MUSC 1408 Central Lakes Wind Symphony (0-1 cr)	***6***	MUSC 1415 Brass Ensemble (0-1 cr)	***6***

****Honors courses***

MUSC 1418 Woodwind Ensemble (0-1 cr)	***6***	MUSC 1419 Percussion Ensemble (1 cr)	***6***
MUSC 1420 String Orchestra (0-1 cr)	***6***	MUSC 1421 Cantare' Concert Chorale (1 cr)	***6***
MUSC 1431 CLC Choir (1 cr)	***6***	MUSC 1441 Applied Music Lessons - Guitar (1 cr)	***6***
MUSC 1450 Music in World Cultures (3 cr)	***6,8***	MUSC 1452 Intro to Music Industry (3 cr)	***6,9***
MUSC 1453 Music Production: Introduction to Pro Tools (3 cr)	***6***	MUSC 1454 Advanced Audio Production (3 cr)	***6***
MUSC 1455 Voice Training (2 cr)	***6***	MUSC 1457 Music Appreciation (3 cr)	***6***
MUSC 1459 Musicology (3 cr)	***6***	MUSC 1464 Applied Music Lessons - Brass (1 cr)	***6***
MUSC 1468 Applied Music Lessons - Strings (1 cr)	***6***	MUSC 1475 Applied Music Lessons - Woodwind (1 cr)	***6***
MUSC 1477 Applied Music Lessons - Bass Guitar (1 cr)	***6***	MUSC 1481 Applied Music Lessons - Piano (1 cr)	***6***
MUSC 1485 Applied Music Lessons - Percussion (1 cr)	***6***	MUSC 1491 Applied Music Lessons - Voice (1 cr)	***6***
MUSC 2401 Evolution of Jazz (3 cr)	***6,7***	PHIL 1411 World Religions (3 cr)	***6,8***
PHIL 1415 Philosophy and Popular Culture (3 cr)	***6***	PHIL 1417 Immortality and the Afterlife (3 cr)	***2,6***
PHIL 2410 Introduction to Philosophy (3 cr)	***2,6***	PHIL 2420 Ethics (3 cr)	***6,9***
PHIL 2421* Honors Ethics (3 cr)	***6,9***	PHIL 2422 Medical Ethics (3 cr)	***6,9***
PHIL 2430 Contemporary Moral Problems (3 cr)	***6,9***	SPAN 2401 Intermediate Spanish I (4 cr)	***6,8***
SPAN 2404 Intermediate Spanish II (4 cr)	***6,8***	THTR 1442 Improvisation (3 cr)	***6***
THTR 1443 Stage to Screen: Plays that Become Movies (3 cr)	***6***	THTR 1445 Acting for the Camera (3 cr)	***6***
THTR 1451 Introduction to Theatre (3 cr)	***6,8***	THTR 1452 Stage Make-up (3 cr)	***6***
THTR 1453 Theatre Costuming (3 cr)	***6***	THTR 1462 Acting II (3 cr)	***6***
THTR 1466 Acting Lab (1 cr)	***6***	THTR 1471 Theatre Production Lab (1 cr)	***6***
THTR 1478 Technical Theatre (3 cr)	***6***	THTR 1480 The Theatre Experience (1-3 cr)	***6***
THTR 1481 The Theatre Experience-New York (1-3 cr)	***6***	THTR 1482 The Theatre Experience-London (1-3 cr)	***6,8***
THTR 1483* Honors Theatre Experience (3 cr)	***6,7***	THTR 1496 Summer Theatre Workshop (3 cr)	***6***
THTR 2410 Children's Theatre (3 cr)	***6***	THTR 2441 Directing for the Theatre (3 cr)	***6***
THTR 2491 Theatre Independent Study (1-3 cr)	***6***		

GOAL 7 - Human Diversity (1 course)

AMSL 2420 Deaf Culture (3 cr)	***6,7***	ANTH 2411 Cultures of American Indians (3 cr)	***5,7***
BIOL 2411 Biology of Women (3 cr)	***3,7***	COMM 2420 Intercultural Communication (3 cr)	***1,7***
COMM 2422* Honors Intercultural Communication (3 cr)	***1,7***	ENGL 1463 Introduction to Literature (3 cr)	***6,7***
ENGL 2455 Native Indian Literature (3 cr)	***6,7***	ENGL 2460 Survey of American Literature (3 cr)	***6,7***
HIST 1472 U.S. History to 1865 (3 cr)	***5,7***	HIST 1473 U.S. History Since 1865 (3 cr)	***5,7***
HIST 1475* Honors U.S. History 1865 to Present (3 cr)	***5,7***	HIST 2411 American Indian History (3 cr)	***5,7***
HIST 2420 History of Women in the U.S. (3 cr)	***5,7***	MUSC 1403 American Popular Music (3 cr)	***6,7***
MUSC 2401 Evolution of Jazz (3 cr)	***6,7***	PSYC 2435 Educational Psychology (3 cr)	***5,7***
PSYC 2441 Social Psychology (3 cr)	***5,7***	PSYC 2470 Abnormal Psychology (3 cr)	***5,7***
SOCL 2481 Race, Ethnicity and Oppression (3 cr)	***5,7***	SPAN 2420 Many Faces of Mexico (3 cr)	***5,7***
THTR 1483* Honors Theatre Experience (3 cr)	***6,7***	WMST 1400 Introduction to Women's Studies (3 cr)	***5,7***
WMST 2420 Women & Religion (3 cr)	***5,7***		

GOAL 8 - Global Perspective (1 course)

AMSL 1410 American Sign Language I (4 cr)	***8***	AMSL 1412 American Sign Language II (4 cr)	***8***
AMSL 1420 American Sign Language Cultural Immersion Travel (2 cr)	***1,8***	AMSL 2410 American Sign Language III (4 cr)	***8***
AMSL 2412 American Sign Language IV (4 cr)	***8***	ANTH 1457 Cultural Anthropology (3 cr)	***5,8***
ENGL 1450 Introduction to Humanities (3 cr)	***6,8***	ENGL 2450 World Literature (3 cr)	***2,8***
GEOG 1410 Maps and Places (3 cr)	***5,8***	GEOG 1421 World Regional Geography (3 cr)	***5,8***
GEOG 1459 Cultural Geography (3 cr)	***5,8***	GEOG 1460* Honors Cultural Geography (3 cr)	***5,8***
GERM 1401 Beginning German I (4 cr)	***8***	GERM 1402 Beginning German II (4 cr)	***8***
GERM 2401 Intermediate German I (4 cr)	***6,8***	GERM 2402 Intermediate German II (4 cr)	***6,8***
GLST 1401 Introduction to Global Studies (3 cr)	***5,8***	GLST 1421* Honors Global Studies: Nobel Conference Experience (3 cr)	***8***
GLST 1491 Global Studies Experience - International Travel (1-4 cr)	***5,8***	GLST 1492 Global Studies Cultural Immersion Experience (1-3 cr)	***8***

Honors courses

GLST 2401 Global Studies Capstone (1-3 cr) ***8***
HIST 1413 World History II, 1500 to Present (3 cr) ***5,8***
OJIB 1401 Beginning Ojibwe I (4 cr) ***8***
OJIB 2401 Intermediate Ojibwe I (4 cr) ***8***
PHIL 1411 World Religions (3 cr) ***6,8***
SOCL 1403* Honors Introduction to Sociology (3 cr) ***5,8***
SPAN 1402 Beginning Spanish II (4 cr) ***8***
SPAN 2404 Intermediate Spanish II (4 cr) ***6,8***
THTR 1451 Introduction to Theatre (3 cr) ***6,8***
THTR 2450 Theatre History (3 cr) ***5,8***
HIST 1412 World History I, From the Beginning to 1500 (3 cr) ***5,8***
MUSC 1450 Music in World Cultures (3 cr) ***6,8***
OJIB 1402 Beginning Ojibwe II (4 cr) ***8***
OJIB 2402 Intermediate Ojibwe II (4 cr) ***8***
POLS 2450 International Relations (3 cr) ***5,8***
SPAN 1401 Beginning Spanish I (4 cr) ***8***
SPAN 2401 Intermediate Spanish I (4 cr) ***6,8***
SPAN 2425 Cultures of Latin America (3 cr) ***5,8***
THTR 1482 The Theatre Experience-London (1-3 cr) ***6,8***

GOAL 9 - Ethic and Civic Responsibility (1 course)

COMM 1450 Introduction to Mass Communication (3 cr) ***2,9***
ENGL 1470 Introduction to Science Fiction and Fantasy Literature (3 cr) ***6,9***
PHIL 2420 Ethics (3 cr) ***6,9***
PHIL 2422 Medical Ethics (3 cr) ***6,9***
POLS 1430 Introduction to Political Science (3 cr) ***5,9***
POLS 1439 State and Local Government (3 cr) ***5,9***
POLS 2402 Tribal Government (3 cr) ***5,9***
SOCL 2411 Social Problems (3 cr) ***5,9***
ENGL 1421* Honors Composition II (4 cr) ***1,9***
MUSC 1452 Intro to Music Industry (3 cr) ***6,9***
PHIL 2421* Honors Ethics (3 cr) ***6,9***
PHIL 2430 Contemporary Moral Problems (3 cr) ***6,9***
POLS 1435 American Government and Politics (3 cr) ***5,9***
POLS 1440 Society and Law (3 cr) ***5,9***
PSYC 1423 Positive Psychology: The Science of Well-Being (3 cr) ***5,9***

GOAL 10 - People and the Environment (1 course)

BIOL 1415 Environmental Biology (4 cr) ***3,10***
BIOL 2415 General Ecology (4 cr) ***3,10***
ENGL 1456 Environmental Literature (3 cr) ***6,10***
ESCI 1400 Geology of National Parks (3 cr) ***3,10***
ESCI 1451 Oceanography (3 cr) ***3,10***
ESCI 1454 Planet Earth (4 cr) ***3,10***
GEOG 1400 Physical Geography (3 cr) ***5,10***
SOCL 2422 Culture and Environment (3 cr) ***5,10***
BIOL 1432 General Biology II (5 cr) ***3,10***
CHEM 1410 Environmental Chemistry (3 cr) ***3,10***
ENVR 1400 Introduction to Environmental Studies (3 cr) ***5,10***
ESCI 1444 Natural Disasters (3 cr) ***3,10***
ESCI 1452 Oceanography Lab (1 cr) ***3,10***
ESCI 1455* Honors Earth Science and the Environment (4 cr) ***3,10***
PSYC 1425 Environmental Psychology (3 cr) ***5,10***

Fitness for Life (2 credits)

Students may select from the following health and physical education courses. Two (2) credits for varsity sport participation may be used.

HLTH 1501 Personal Health and Wellness (3 cr)
HLTH 1520 Principles of Nutrition (3 cr)
HLTH 1541 Human Sexuality (3 cr)
PHED 1505 Fitness Walking (2 cr)
PHED 1510 Beginning Skiing/Snowboarding (2 cr)
PHED 1512 Beginning Yoga (2 cr)
PHED 1514 Cardio Sampler (2 cr)
PHED 1520 Vinyasa (Flow) Yoga (2 cr)
PHED 1522 Weight Training (2 cr)
PHED 1524 Recreational Sampler (2 cr)
PHED 1536 Advanced Golf (2 cr)
PHED 1544 Basketball - Coed (1 cr)
PHED 1594 Fitness for Life (2 cr)
PHED 2501 Varsity Sports - Football (1 cr)
PHED 2503 Varsity Sports - Men's Basketball (1 cr)
PHED 2505 Varsity Sports - Baseball (1 cr)
PHED 2507 Varsity Sports - Golf (1 cr)
PHED 2512 Varsity Sports - Volleyball II (1 cr)
PHED 2514 Varsity Sports - Women's Basketball II (1 cr)
PHED 2516 Varsity Sports - Softball II (1 cr)
HLTH 1507 Drug Awareness (3 cr)
HLTH 1531 Women's Health (3 cr)
PHED 1502 Circuit Training (2 cr)
PHED 1508 Bicycling (2 cr)
PHED 1511 Advanced Skiing/Snowboarding (2 cr)
PHED 1513 Aerobic Conditioning (2 cr)
PHED 1516 Yoga for Stress Relief (2 cr)
PHED 1521 Body Conditioning (2 cr)
PHED 1523 Strength Training for Women (2 cr)
PHED 1534 Beginning Golf (2 cr)
PHED 1541 Bowling (2 cr)
PHED 1553 Power Volleyball (2 cr)
PHED 1597* Honors Fitness for Life (3 cr)
PHED 2502 Varsity Sports - Volleyball (1 cr)
PHED 2504 Varsity Sports - Women's Basketball (1 cr)
PHED 2506 Varsity Sports - Softball (1 cr)
PHED 2511 Varsity Sports - Football II (1 cr)
PHED 2513 Varsity Sports - Men's Basketball II (1 cr)
PHED 2515 Varsity Sports - Baseball II (1 cr)
PHED 2517 Varsity Sports - Golf II (1 cr)

Honors courses

Student Success (1-3 credits)

Students may select one course from the following College and Career Studies courses. It is recommended that students enroll in this course during their first semester. Students who have already completed an Associate or Bachelor's Degree may apply for a waiver/exemption from this requirement.

CCST 1510 College Success Skills (3 cr)
CCST 1520 Career Planning (2 cr)
CCST 1535* Honors Leadership Development (3 cr)
CCST 1550 Introduction to College (1 cr)
CCST 1552 Success Strategies for Athletes (1 cr)
CCST 1570 On Course (3 cr)

General Electives (15-17 credits)

Students must complete up to 17 credits of courses at the 1000 level or higher to earn 60 credits required for an Associate in Arts Degree. These credits may be taken at Central Lakes College, transferred from any regionally accredited institution of higher learning, or accepted based upon any approved advanced standing agreement with Central Lakes College.

Associate of Arts Degree - Honors Program (15 credits)

Associate of Arts Degree students may choose to also complete the Honors Program. This is available to students who have completed CCST 1535 Honors Leadership Development (required) PLUS any 12 credits of the honors courses (15 credits total honors courses) listed below as part of their course work for an AA degree, and have a cumulative GPA of 3.5 or higher. Students interested in completing the Honors Program must contact the CLC Admissions Department of their intent. Questions about the Honors Program should be directed to an advisor or the Honors Coordinator.

CCST 1535* Honors Leadership Development (3 cr)		COMM 1422* Honors Interpersonal Communication (3 cr)	***1***
COMM 2422* Honors Intercultural Communication (3 cr)	***1,7***	ECON 1451* Honors American Economy (3 cr)	***5***
ENGL 1420* Honors Composition I (4 cr)	***1***	ENGL 1421* Honors Composition II (4 cr)	***1,9***
ENGL 1460* Honors Literature: The Great Books (3 cr)	***6***	ESCI 1455* Honors Earth Science and the Environment (4 cr)	***3,10***
ESCI 1461* Honors Exploring the Edge of Space (4 cr)	***3***	GEOG 1460* Honors Cultural Geography (3 cr)	***5,8***
GLST 1421* Honors Global Studies: Nobel Conference Experience (3 cr)	***8***	HIST 1475* Honors U.S. History 1865 to Present (3 cr)	***5,7***
MATH 1461* Honors Introduction to Statistics (4 cr)	***2,4***	MATH 1480* Honors Calculus I (5 cr)	***4***
PHED 1597* Honors Fitness for Life (3 cr)		PHIL 1422* Honors Critical Thinking (3 cr)	***1,2***
PHIL 2421* Honors Ethics (3 cr)	***6,9***	PHYS 1425* Honors Astronomy/Physics (4 cr)	***3***
PSYC 2423* Honors General Psychology (4 cr)	***2,5***	SOCL 1403* Honors Introduction to Sociology (3 cr)	***5,8***
THTR 1483* Honors Theatre Experience (3 cr)	***6,7***		

Honors courses

Central Lakes College, Brainerd Campus 2020-2021

Art Transfer Pathway, A.F.A.

Associate of Fine Arts Degree (TPAR)

Required Discipline Courses 24
MnTC Courses..... 36
Total Credits 60

Program Description

The Art Transfer Pathway A.F.A. Degree serves students planning to pursue a baccalaureate degree with a major in Studio Art or Art Education. Students will develop the skills necessary to produce art and experience the creative decision making process, enabling students to develop individual excellence in their work. Through art history classes, students will develop an understanding of the unfolding of the arts through time and contributions made through art to the larger culture.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Comprehend and create two-dimensional and three-dimensional works of art;
- Create and comprehend digital images;
- Explain visual elements common to all facets of art history and relate this to the current era;
- Demonstrate an appreciation of art;
- Demonstrate skills in ceramic art construction; and
- Demonstrate an increased appreciation of the vital role and value that the fine arts and humanities have on the development of culture.

Career Opportunities

A bachelor's degree in Art may lead to potential career opportunities in art education, gallery or museum curation, graphic design, game design, industrial design, interior design, and many other skilled positions. Many graduates completing a bachelor's degree in Art are encouraged to attend graduate school to continue their development, eventually becoming self-employed studio artists.

Program Course Requirements

Required Discipline Courses (24 credits)

ARTS 1458 Introduction to Drawing (Goal 6) ..... 3 cr
ARTS 1459 2-D Design (Goal 6)..... 3 cr
ARTS 1461 3-D Design (Goal 6)..... 3 cr
ARTS 2411 Introduction to Digital Imaging (Goal 6)..... 3 cr
ARTS 2486 Art History/Ancient (Goal 6)..... 3 cr
ARTS 2487 Art History/Modern (Goal 6) ..... 3 cr
Additional ARTS studio art courses (Goal 6)..... 6 cr

Required MnTC Courses (36 credits)

An associate of fine arts degree requires credits selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). The following courses are required:

COMM 2420 Intercultural Communication (Goals 1,7) **OR**
COMM 2422* Honors Intercultural Comm (Goals 1,7) ..... 3 cr
ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
ENGL 1411* Composition II (Goal 1) **OR**
ENGL 1421* Honors Composition II (Goal 1) ..... 4 cr

Select a minimum of 12 credits from the following courses. A minimum of one course from each category is required.

2-D Design Courses (1 minimum):

ARTS 1401 Black and White Photography (Goal 6) ..... 3 cr
ARTS 1420 The Art of Digital Photography (Goal 6) ..... 3 cr
ARTS 1425 Introduction to Graphic Design (Goal 6) .... 3 cr
ARTS 1468 Introduction to Painting (Goal 6)..... 3 cr

3-D Design Courses (1 minimum):

ARTS 1487 Ceramics: Beginning Hand Building (Goal 6). ..... 3 cr
ARTS 1488 Ceramics: Beginning Throwing (Goal 6) ..... 3 cr
ARTS 1489 Intermediate Ceramics (Goal 6) ..... 3 cr

Select additional Minnesota Transfer curriculum courses to total 60 credits in six goal areas** 13

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*
***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible*

Semester Course Requirements

This is a sample full-time student pathway.

Semester One (13 credits)

ARTS 1458 Introduction to Drawing (Goal 6)..... 3 cr
ARTS 1459 2-D Design (Goal 6)..... 3 cr
ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
Additional ARTS studio art course (Goal 6)..... 3 cr

Semester Two (16 credits)

ARTS 1461 3-D Design (Goal 6)..... 3 cr
ARTS 2411 Introduction to Digital Imaging (Goal 6) ..... 3 cr
ARTS 2486 Art History/Ancient (Goal 6) ..... 3 cr
ENGL 1411* Composition II (Goal 1) **OR**
ENGL 1421* Honors Composition II (Goal 1) ..... 4 cr
Additional ARTS studio art course (Goal 6)..... 3 cr

Semester Three (15 credits)

COMM 2420 Intercultural Communication (Goals 1,7) **OR**
COMM 2422* Honors Intercultural Comm (Goals 1,7)..... 3 cr
Additional ARTS 2-D or 3-D design course ..... 3 cr
Additional ARTS 2-D or 3-D design course ..... 3 cr
Minnesota Transfer Curriculum courses**..... 6 cr

Semester Four (16 credits)

ARTS 2487 Art History/Modern (Goal 6) ..... 3 cr
Additional ARTS 2-D or 3-D design course ..... 3 cr
Additional ARTS 2-D or 3-D design course ..... 3 cr
Minnesota Transfer Curriculum courses**..... 7 cr

**Denotes Prerequisites*
***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Transfer Opportunities

The Art Transfer Pathway A.F.A. Degree offers students a powerful option: the opportunity to complete an Associate of Fine Arts degree with course credits that directly transfer to designated Art bachelor's degree programs at Minnesota State universities. The curriculum has been specifically designed so students completing this pathway degree and transferring to a Minnesota State university may enter with junior-year status. Courses in the Art Transfer Pathway degree will directly transfer and apply to the designated bachelor's degree programs. Students should consult with an advisor for guidance regarding how to best meet the requirements of their intended baccalaureate program. Universities within the Minnesota State system participating in the Art Transfer Pathway include:

- Metropolitan State University - BA
- Minnesota State University, Mankato – BA, BFA
- Minnesota State University, Moorhead – BA
- Southwest Minnesota State University, BA
- St. Cloud State University - BFA

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Biology Transfer Pathway, A.S.

Associate of Science Degree (TPBI)

Required Discipline courses 28
MnTC courses 16
Electives 16
Total Credits 60

Program Description

Biology is the science of life and living organisms. CLC's Biology Transfer Pathway Associate of Science (A.S.) Degree is designed for students interested in various fields of biological science, including cell biology, bioengineering, environmental science, fish and wildlife management, forestry, genetics and microbiology. It also is excellent preparation for students interested in a pre-professional transfer program for a medical profession. Students will develop laboratory skills, techniques, and procedures allowing them to gather, organize, and analyze data. The CLC Biology Transfer Pathway A.S. Degree allows students to take the first two years of a biology degree at CLC and then transfer to a Minnesota State university as a junior to complete the degree.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Propose testable hypotheses and carry out experiments to test them, relying on standardized international systems of measurement;
- Analyze simple data sets using appropriate descriptive and inferential statistics;
- Use public literature databases to find appropriate published material, and should be able to read, understand, and evaluate the validity and importance of the scientific literature and to integrate new concepts into their existing knowledge frameworks;
- Communicate their own and others' data and analyses in oral and written formats, using computers where necessary to visualize data or to create clear and compelling papers, posters, or presentations;
- Analyze scientific studies in light of their ecological, social, economic, ethical, and cultural implications;
- Communicate and work productively with others in designing, conducting, and evaluating projects, experiments, and other course related deliverables as an essential skill in science;
- Utilize other disciplines as sources of context and skills to inform the learning and work they are engaged in; and
- Demonstrate skill development in basic light microscopy and exposure to more advanced forms of microscopy and digital imaging.

Program Course Requirements

Required Discipline Courses (28 credits)

BIOL 1431 General Biology I (Goal 3) ..... 5 cr
BIOL 1432 General Biology II (Goal 3) ..... 5 cr
BIOL 2420* Genetics (Goal 3) ..... 4 cr
CHEM 1424* Chemical Principles I (Goal 3) ..... 5 cr
CHEM 1425* Chemical Principles II (Goal 3) ..... 5 cr

Choose one of the following courses based on transfer university destination and desired biology track:

BIOL 2415 General Ecology (Goals 3,10) **OR**
BIOL 2457 Microbiology (Goal 3) ..... 4 cr

Required MnTC Courses (16 credits)

An associate of science degree requires a minimum of 30 credits selected from at least 6 of the 10 goal areas of the Minnesota Transfer Curriculum (MnTC).

COMM 1420 Interpersonal Communication (Goal 1) **OR**
COMM 1422* Honors Interpersonal Comm (Goal 1) **OR**
COMM 1430 Public Speaking (Goals 1,2) **OR**
COMM 2420 Intercultural Communication (Goals 1,7) **OR**
COMM 2422* Honors Intercultural Comm (Goals 1,7) ..... 3 cr
ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
MATH 1470 College Algebra (Goal 4) ..... 3 cr
Goal 5** course ..... 3 cr
Goal 6** course ..... 3 cr

Recommended Electives (16 credits)

The following courses are suggestions for useful elective courses within the sciences. Course selections should be tailored to specific major track and transfer university.

BIOL 1415 Environmental Biology (Goals 3,10) ..... 4 cr
BIOL 2467* Anatomy and Physiology I (Goal 3) ..... 4 cr
BIOL 2468* Anatomy and Physiology II (Goal 3) ..... 4 cr
CHEM 1410 Environmental Chemistry (Goals 3,10) ..... 3 cr
CHEM 2472* Organic Chemistry I (Goal 3) ..... 5 cr
CHEM 2473* Organic Chemistry II (Goal 3) ..... 5 cr
ESCI 1454 Planet Earth (Goals 3,10) **OR**
ESCI 1455 Honors Planet Earth (Goals 3,10) ..... 4 cr
GEOG 1430 Introduction to Geographic Information Systems (Goals 2,5) ..... 3 cr

Program Course Requirements (continued)

MATH 1460* Introduction to Statistics (Goal 4) **OR**
MATH 1461* Honors Intro to Statistics (Goals 2,4) ..... 4 cr
MATH 1472* Precalculus (Goal 4) ..... 5 cr
MATH 1477* Calculus I (Goal 4) **OR**
MATH 1480* Honors Calculus I (Goal 4) ..... 5 cr
PHYS 1401* College Physics I (Goal 3) ..... 4 cr
PHYS 1402* College Physics II (Goal 3) ..... 4 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*
***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible*

Semester Course Requirements

This is a sample full-time student pathway.

Semester One (17 credits)
BIOL 1431 General Biology I (Goal 3) ..... 5 cr
CHEM 1424* Chemical Principles I (Goal 3) ..... 5 cr
ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
MATH 1470 College Algebra (Goal 4) ..... 3 cr

Semester Two (16 credits)
BIOL 1432 General Biology II (Goal 3) ..... 5 cr
CHEM 1425* Chemical Principles II (Goal 3) ..... 5 cr
COMM 1420 Interpersonal Communication (Goal 1) **OR**
COMM 1422* Honors Interpersonal Comm (Goal 1) **OR**
COMM 1430 Public Speaking (Goals 1,2) **OR**
COMM 2420 Intercultural Communication (Goals 1,7) **OR**
COMM 2422* Honors Intercultural Comm (Goals 1,7) ..... 3 cr
Electives** ..... 3 cr

Semester Three (14 credits)
BIOL 2420* Genetics (Goal 3) ..... 4 cr
Goal 5** course ..... 3 cr
Electives** ..... 7 cr

Semester Four (13 credits)
BIOL 2415 General Ecology (Goals 3,10) **OR**
BIOL 2457 Microbiology (Goal 3) ..... 4 cr
Goal 6** course ..... 3 cr
Electives** ..... 6 cr

**Denotes Prerequisites*
***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Transfer Opportunities

The Biology Transfer Pathway A.S. Degree offers students a powerful option: the opportunity to complete an Associate of Science degree with course credits that directly transfer to designated Biology bachelor's degree programs at Minnesota State universities. The curriculum has been specifically designed so students completing this pathway degree and transferring to a Minnesota State university may enter with junior-year status. Courses in the Biology Transfer Pathway associates degree will directly transfer and apply to the designated bachelor's degree programs. Students should consult with an advisor for guidance regarding how to best meet the requirements of their intended baccalaureate program. Universities within the Minnesota State system participating in the Biology Transfer Pathway include:

- Bemidji State University – BA, BS
- Metropolitan State University - BA
- Minnesota State University, Mankato – BS
- Minnesota State University, Moorhead – BA
- Southwest Minnesota State University, BA
- St. Cloud State University - BS
- Winona State University - BS

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Chemistry Transfer Pathway, A.S.

Associate of Arts Degree (TPCH)

Required Discipline courses 20
MnTC courses 36
Electives 4
Total Credits 60

Program Description

Chemistry is the study of matter, or the substance of physical objects, with a focus on composition, structure, properties and change. Chemists are particularly interested in the properties of chemical bonds involved in the creation of chemical compounds. Upon completion of the Chemistry Transfer Pathway A.S. Degree, students will have developed strong communication skills and grown in scientific and mathematical reasoning skills, as well as the ability to perform experiments in a hands-on environment. Chemistry majors have career opportunities in research labs, industry labs, teaching positions, environmental fields, pharmaceuticals or entrance into pharmacy or medical school.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate basic knowledge and understanding of the fundamentals of experimental and theoretical chemistry;
- Explain and apply skills in analytical thinking and problem solving, and apply scientific methods to experimental data;
- Demonstrate skills in laboratory operations including making accurate and precise measurements, preparing solutions, operating instrumentation, experimental design, and the interpretation and reporting of quantitative and qualitative data and results;
- Communicate their own data and analysis in oral and written communications that uses tables and graphs, describes detailed experimental procedures, and clearly explains conclusions, in order to create clear and compelling papers, posters, or presentations;
- Work both independently and collaboratively in the classroom and in the laboratory; and
- Apply learned concepts to everyday situations and experiences and critically evaluate contributions to science reported in the media; identify valid approaches to scientific problem solving and reporting.

Program Course Requirements

Required Discipline Courses (20 credits)

CHEM 1424* Chemical Principles I (Goal 3) ..... 5 cr
CHEM 1425* Chemical Principles II (Goal 3) ..... 5 cr
CHEM 2472* Organic Chemistry I (Goal 3)..... 5 cr
CHEM 2473* Organic Chemistry II (Goal 3)..... 5 cr

Required MnTC Courses (36 credits)

An associate of science degree requires a minimum of 30 credits selected from at least 6 of the 10 goal areas of the Minnesota Transfer Curriculum (MnTC).

ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
MATH 1477* Calculus I (Goal 4) **OR**
MATH 1480* Honors Calculus I (Goal 4) ..... 5 cr
MATH 1478* Calculus II (Goal 4) ..... 5 cr
PHYS 1411* Classical Physics I (Goal 3) ..... 5 cr
PHYS 1412* Classical Physics II (Goal 3) ..... 5 cr
Goal 1** COMM course..... 3 cr
Goal 5** course ..... 3 cr
Goal 6** course ..... 3 cr
Goal 7-10** course..... 3 cr

Electives (4 credits)

Electives ..... 4 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

This is a sample full-time student pathway.

Semester One (14 credits)

CHEM 1424* Chemical Principles I (Goal 3) ..... 5 cr
ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
MATH 1477* Calculus I (Goal 4) **OR**
MATH 1480* Honors Calculus I (Goal 4)..... 5 cr

Semester Two (16 credits)

CHEM 1425* Chemical Principles II (Goal 3) ..... 5 cr
MATH 1478* Calculus II (Goal 4) ..... 5 cr
Goal 1** COMM course..... 3 cr
Goal 6** course ..... 3 cr

Semester Three (16 credits)

CHEM 2472* Organic Chemistry I (Goal 3)..... 5 cr
PHYS 1411* Classical Physics I (Goal 3)..... 5 cr
Goal 5** course ..... 3 cr
Goal 7-10** course ..... 3 cr

Semester Four (14 credits)

CHEM 2473* Organic Chemistry II (Goal 3)..... 5 cr
PHYS 1412* Classical Physics II (Goal 3)..... 5 cr
Electives ..... 4 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Transfer Opportunities

The Chemistry Transfer Pathway A.S. Degree offers students a powerful option: the opportunity to complete an Associate of Science degree with course credits that directly transfer to designated Chemistry bachelor's degree programs at Minnesota State universities. The curriculum has been specifically designed so students completing this pathway degree and transferring to a Minnesota State university may enter with junior-year status. Courses in the Chemistry Transfer Pathway associates degree will directly transfer and apply to the designated bachelor's degree programs. Students should consult with an advisor for guidance regarding how to best meet the requirements of their intended baccalaureate program. Universities within the Minnesota State system participating in the Chemistry Transfer Pathway include:

- Bemidji State University – BA, BS
- Metropolitan State University - BS
- Minnesota State University, Mankato – BS
- Minnesota State University, Moorhead – BA, BS
- Southwest Minnesota State University, BA
- St. Cloud State University - BS
- Winona State University - BS

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Economics Transfer Pathway, A.A.

Associate of Arts Degree (TPEC)

Required/MN Transfer Curriculum ... 51
Fitness for Life/Student Success 3
Electives 6
Total Credits 60

Program Description

It is often suggested that economics is the study of peoples' efforts to satisfy their unlimited wants by utilizing their limited resources. Economics studies the cost implications of an individual making a decision to go to college, the cost implications of a society making a decision to go to war, and everything in-between. Economics might be the most broadly applied of the social sciences because economists believe that all human decisions have economic costs and, therefore, are worthy of economic analysis. The Economics Transfer Pathway provides a broad base of general education relevant to economics careers, and prepares students for transfer into an Economics baccalaureate degree at Minnesota State universities. A bachelor's degree in economics will open doors into a number of career fields including management, public administration, public policy, banking, education, and business. It may also be a step to advanced degrees in many fields.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Ask an economic question, gather information and resources, form an explanatory hypothesis, collect data that can be used to test the hypothesis, analyze the data, draw conclusions, and suggest future research;
- Work with mathematical formalizations of economic models and perform mathematical operations; explain the design and results of laboratory and field experiments; and explain the conduct, results, and limitations of basic econometrics;
- Explain economic models as deliberate simplifications of reality that economists create to think through complex, nondeterministic behaviors; identify the assumptions and limitations of each model and their potential impacts;
- Explain the strengths and limitations of economic data and statistical analyses; and think creatively and combine or synthesize existing economic ideas in original ways; and
- Demonstrate knowledge of major economic institutions and familiarity with magnitudes of common economic statistics.

Program Course Requirements

Required Discipline Courses (6 credits)

ECON 2401 Principles of Economics – Macroeconomics (Goal 5)..... 3 cr
ECON 2402 Principles of Economics – Microeconomics (Goal 5)..... 3 cr

Required MnTC Courses (45 credits)

COMM 2420 Intercultural Communication (Goals 1,7) **OR**
COMM 2422* Honors Intercultural Comm (Goals 1,7) recommended, or other COMM course ..... 3 cr
ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
ENGL 1411* Composition II (Goal 1) **OR**
ENGL 1421* Honors Composition II (Goals 1,9)..... 4 cr
MATH 1460* Introduction to Statistics (Goal 4) **OR**
MATH 1461* Honors Intro to Statistics (Goals 2,4)..... 4 cr
MATH 1470 College Algebra (Goal 4) ..... 3 cr
PHIL 2410 Introduction to Philosophy (Goals 2,6) recommended, or other PHIL course..... 3 cr
Goal 2** (This goal will be fulfilled by selecting a course that also meets Goal 4, 5 or 6) .....
Goal 3 ** (2 disciplines required, 3 recommended, must include one Goal 3 lab course) ..... 6 cr
Goal 5 ** (any discipline other than Economics)..... 3 cr
Goal 6 ** (2 disciplines required, 3 recommended)..... 9 cr
Goal 8 ** ..... 3 cr
Goal 9 ** ..... 3 cr

Fitness for Life (2 credits)

HLTH or PHED Fitness for Life course ..... 2 cr

Student Success (1 credit)

CCST 1550 Introduction to College (recommended).... 1 cr

Electives (6 credits)

Electives as needed to total 60 credits** ..... 6 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*
***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Semester Course Requirements

This is a sample full-time student pathway.

Semester One (14 credits)

CCST 1550 Introduction to College (recommended) .... 1 cr
ECON 2401 Principles of Economics – Macroeconomics (Goal 5) ..... 3 cr
ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
Goal 3 w/lab course (Goals 3,10) ..... 3 cr
Electives** ..... 3 cr

Semester Two (16 credits)

COMM 2420 Intercultural Communication (Goals 1,7) **OR**
COMM 2422* Honors Intercultural Comm (Goals 1,7) recommended, or other COMM course ..... 3 cr
ECON 2402 Principles of Economics – Microeconomics (Goal 5) ..... 3 cr
ENGL 1411* Composition II (Goal 1) **OR**
ENGL 1421* Honors Composition II (Goals 1,9) ..... 4 cr
Goal 6 ** ..... 3 cr
Electives** ..... 3 cr

Semester Three (15 credits)

MATH 1470* College Algebra (Goal 4) ..... 3 cr
PHIL 2410 Introduction to Philosophy (Goals 2,6) recommended, or other PHIL course ..... 3 cr
Goal 3 ** ..... 3 cr
Goal 9 ** ..... 3 cr
Electives or Goal 10** course ..... 3 cr

Semester Four (15 credits)

MATH 1460* Introduction to Statistics (Goal 4) **OR**
MATH 1461* Honors Intro to Statistics (Goals 2,4) ..... 4 cr
Goal 5 ** (any discipline other than Economics) ..... 3 cr
Goal 6 ** ..... 3 cr
Goal 8 ** ..... 3 cr
HLTH or PHED Fitness for Life course ..... 2 cr

**Denotes Prerequisites*
***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Transfer Opportunities

The Economics Transfer Pathway A.A. Degree offers students a powerful option: the opportunity to complete an Associate of Arts degree with course credits that directly transfer to designated Economics bachelor's degree programs at Minnesota State universities. The curriculum has been specifically designed so students completing this pathway degree and transferring to a Minnesota State university may enter with junior-year status. Courses in the Economics Transfer Pathway associates degree will directly transfer and apply to the designated bachelor's degree programs. Students should consult with an advisor for guidance regarding how to best meet the requirements of their intended baccalaureate program. Universities within the Minnesota State system participating in the Economics Transfer Pathway include:

- Bemidji State University – BS
- Metropolitan State University - BS
- Minnesota State University, Mankato – BS
- Minnesota State University, Moorhead - BA
- St. Cloud State University - BA
- Winona State University - BA

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Exercise Science Transfer Pathway, A.S.

Associate of Arts Degree (TPEX)

Required Discipline Courses 10
Minnesota Transfer Curriculum... 39-41
Required Electives 7-9
Total Credits 60

Program Description

The Associate of Science (A.S.) Degree in Exercise Science Transfer Pathway will examine the effects of exercise and physical activity on people in order to optimize their physical and mental health. This program focuses on the anatomy, physiology, biochemistry and biophysics of human movement, and application to exercise and therapeutic rehabilitation. This degree can prepare students to transfer, and choose from a broad range of careers such as clinical testing, personal training and performance enhancement, sports management, physical therapy, strength and conditioning, athletic training, cardiac rehabilitation and many more.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate foundational knowledge in the basic sciences (biology, physiology, and chemistry) pertinent to the field of exercise science;
- Apply basic scientific principles from exercise physiology and biomechanics to human movement and exercise;
- Discuss ethical standards, expectations, and education requirements in the exercise science professions;
- Explain how physical activity and nutrition influence human physiology; and
- Discuss psychological factors that influence behavior change.

Program Course Requirements

Required Discipline Courses (10 credits)

HLTH 1520 Principles of Nutrition ..... 3 cr
PHED 1522 Weight Training ..... 2 cr
PHED 1528 Introduction to Exercise Science ..... 3 cr
PHED 1594 Fitness for Life **OR**
PHED 1597* Honors Fitness for Life..... 2 cr

Required MnTC Courses (43 credits)

An A.S. degree requires a minimum of 30 credits selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum.

BIOL 1404 Human Biology (Goal 3) **OR**..... 3 cr
BIOL 1411 Concepts of Biology (Goal 3) **OR** ..... 3 cr
BIOL 1431 General Biology (Goal 3)..... 5 cr

CHEM 1407 Life Science Chemistry (Goal 3) **OR** ..... 4 cr
CHEM 1414 Fundamentals of Chemistry (Goal 3) **OR**.... 4 cr
CHEM 1424 Chemical Principles I (Goal 3) ..... 5 cr

BIOL 2467* Anatomy and Physiology I (Goal 3)..... 4 cr
BIOL 2468* Anatomy and Physiology II (Goal 3)..... 4 cr

ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
ENGL 1411* Composition II (Goal 1) **OR**
ENGL 1421* Honors Composition II (Goals 1,9)..... 4 cr
MATH 1460* Introduction to Statistics (Goal 4) **OR**
MATH 1461* Honors Intro to Statistics (Goals 2,4)..... 4 cr
PHIL 2420 Ethics (Goals 6,9) ..... 3 cr
PSYC 2421 General Psychology (Goals 2,5) **OR**
PSYC 2423* Honors General Psychology (Goals 2,5) ..... 4 cr
Goal 1 COMM course..... 3 cr
Goal 5 course ..... 3 cr
Goal 7 course ..... 3 cr

Additional Required Courses

PHED courses ..... 4 cr
MnTC courses to total 60 credits..... 1-3 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*
***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Semester Course Requirements

This is a sample full-time student pathway.

Semester One (15-17 credits)

BIOL 1404	Human Biology (Goal 3) **OR**	3 cr
BIOL 1411	Concepts of Biology (Goal 3) **OR**	3 cr
BIOL 1431	General Biology (Goal 3)	5 cr
ENGL 1410	Composition I (Goal 1) **OR**	
ENGL 1420*	Honors Composition I (Goal 1)	4 cr
PHED 1528	Introduction to Exercise Science	3 cr
PHED courses		2 cr
Goal 5 course		3 cr

Semester Two (14-15 credits)

CHEM 1407	Life Science Chemistry (Goal 3) **OR**	4 cr
CHEM 1414	Fundamentals of Chemistry (Goal 3) **OR**	4 cr
CHEM 1424	Chemical Principles I (Goal 3)	5 cr
ENGL 1411*	Composition II (Goal 1) **OR**	
ENGL 1421*	Honors Composition II (Goals 1,9)	4 cr
MATH 1460*	Introduction to Statistics (Goal 4) **OR**	
MATH 1461*	Honors Intro to Statistics (Goals 2,4)	4 cr
PHED 1594	Fitness for Life **OR**	
PHED 1597*	Honors Fitness for Life	2 cr

Semester Three (15 credits)

BIOL 2467*	Anatomy and Physiology I (Goal 3)	4 cr
Goal 1 COMM course		3 cr
HLTH 1520	Principles of Nutrition	3 cr
PHIL 2420	Ethics (Goals 6,9)	3 cr
PHED courses		2 cr

Semester Four (14-16 credits)

BIOL 2468*	Anatomy and Physiology II (Goal 3)	4 cr
PHED 1522	Weight Training	2 cr
PSYC 2421	General Psychology (Goals 2,5) **OR**	
PSYC 2423*	Honors General Psychology (Goals 2,5)	4 cr
Goal 7 course		3 cr
MnTC courses		1-3 cr

**Denotes Prerequisites*

***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Transfer Opportunities

The Exercise Science Transfer Pathway A.S. Degree offers students a powerful option: the opportunity to complete an Associate of Science degree with course credits that directly transfer to designated Exercise Science bachelor's degree programs at Minnesota State universities. The curriculum has been specifically designed so students completing this pathway degree and transferring to a Minnesota State university may enter with junior-year status. Courses in the Exercise Science Transfer Pathway associates degree will directly transfer and apply to the designated bachelor's degree programs. Students should consult with an advisor for guidance regarding how to best meet the requirements of their intended baccalaureate program. Universities within the Minnesota State system participating in the Exercise Science Transfer Pathways include:

- Bemidji State University, BS
- Minnesota State University, Mankato – BS
- Minnesota State University, Moorhead - BS
- Southwest MN State University, BS
- Winona State University - BS

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Health Sciences Broad Field, A.S.

Associate of Applied Science Degree (A120)

Core Requirements..... 51
Additional MN Transfer Curriculum.... 9
Total Credits 60

Program Description

This program prepares students for careers in the healthcare occupation field. It provides a broad base of general education course work relevant to health sciences in preparation for transfer to an array of health sciences majors at a college or university. This program is designed to fulfill the prerequisite requirements for health science baccalaureate requirements for specific majors at all Minnesota State universities offering related degrees through a statewide articulation agreement.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Develop as writers and speakers who use the English language effectively and who read, write, speak, and listen critically;
- Develop capacity to identify, discuss, and reflect upon social and behavioral issues;
- Demonstrate comprehension of human and biological systems;
- Increase knowledge about mathematical and logical modes of thinking; and
- Improve their awareness and understanding of health, wellness and liberal arts.

Career Opportunities

This program provides preparation for transfer into a number of health sciences majors including physical therapist, occupational therapist, rehabilitation specialist, nurse, nurse educator, athletic trainer, clinical social worker, health educator, nutritionist, dietitian, medical sonographer, radiologic technician, surgical technician, dental hygienist, psychologist, cardiovascular technologist, orthodontic technologist, exercise physiologist, health center manager, and more.

Program Course Requirements

BIOL 1431	General Biology I (Goal 3)	5
BIOL 2457*	Microbiology (Goal 3)	4
BIOL 2467*	Anatomy and Physiology I (Goal 3)	4
BIOL 2468*	Anatomy and Physiology II (Goal 3)	4
CHEM 1407	Life Science Chemistry (Goal 3) **OR**	4
CHEM 1424*	Chemical Principles I (Goal 3)	5
COMM 2420	Interpersonal Communication (Goal 1) **OR**	
COMM 1420	Intercultural Communication (Goals 1,7)	3
ENGL 1410	Composition I (Goal 1) **OR**	
ENGL 1420*	Honors Composition I (Goal 1)	4
HLTH 1520	Principles of Nutrition	3
MATH 1460*	Introduction to Statistics (Goal 4) **OR**	
MATH 1461*	Honors Intro to Statistics (Goals 2,4)	4
MATH 1470*	College Algebra (Goal 4)	3
PHIL 2420	Ethics (Goals 6,9)	3
PSYC 2421	General Psychology (Goals 2,5) **OR**	
PSYC 2423*	Honors General Psychology (Goals 2,5)	4
PSYC 2431*	Human Development (Goal 5)	3
SOCL 1401	Introduction to Sociology (Goals 2,5) **OR**	
SOCL 1403*	Honors Intro to Sociology (Goals 5,8)	3

An A.S. degree requires a minimum of 30 credits selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Student must select additional MnTC credits to total 60 credits. The following course is highly recommended:

ENGL 1411*	Composition II (Goal 1) **OR**	
ENGL 1421*	Honors Composition II (Goals 1,9)	4 cr
Minnesota Transfer Curriculum courses		5 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor or advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Transfer Opportunities

Students should consult with both Central Lakes College and transfer university advisors early in the process for guidance and planning regarding how to best meet the requirements of the various health sciences baccalaureate programs.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Psychology Transfer Pathway, A.A.

Associate of Arts Degree (TPPS)

MN Transfer Curriculum 46
Fitness for Life/Student Success 5
Electives 9
Total Credits 60

Program Description

Psychology is the study of behavior and mental processes. People sometimes think of psychology as the study of mental and emotional problems, or as psychotherapy, but the field is actually much broader than this. Psychology uses the scientific method to study human behavior in all its many forms, from the genetic level and the biological basis of behavior, to understanding how individuals and groups behave in everyday activities. Psychology includes the study of what we have in common with other human beings, such as how we learn and remember, along with what makes us unique individuals - our personalities. In Psychology, you will study what makes people thrive and grow, as well as what might lead to problems. The Psychology Transfer Pathway provides a broad base of general education relevant to psychology careers, and prepares students for transfer into a Psychology baccalaureate degree at Minnesota State universities.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Describe key concepts, principle and overarching themes in psychology
- Develop a working knowledge of psychology's content domains
- Describe applications of psychology
- Use scientific reasoning to interpret psychological phenomena
- Demonstrate psychology information literacy
- Engage in systematic problem-solving inferred by psychological research
- Interpret, design or conduct basic psychological research
- Incorporate sociocultural factors in scientific inquiry
- Use statistical programs to augment scientific inquiry
- Apply ethical standards to evaluate and/or conduct psychological research and practice
- Build and enhance interpersonal relationships
- Explore values and/or practices that build community at local, national and global levels
- Demonstrate effective writing for different purposes including basic APA style
- Exhibit effective presentation skills for different purposes
- Interact effectively with others
- Demonstrate effective communication skills

Program Course Requirements

Required Discipline Courses (14 credits)

PSYC 2421 General Psychology (Goals 2,5) **OR**
PSYC 2423* Honors General Psychology (Goals 2,5) ..... 4 cr

PSYC 2427* Statistics for Psychology (Goal 5) ..... 4 cr

PSYC 2431* Human Development (Goal 5) **OR**
PSYC 2470* Abnormal Psychology (Goals 5,7) **OR**
PSYC 2441* Social Psychology (Goals 5,7) ..... 3 cr

Additional Psychology course ..... 3 cr

Required MnTC Courses (32 credits)

COMM 1420 Interpersonal Communication **OR**
COMM 1422* Honors Interpersonal Communication **OR**
COMM 1410 Introduction to Communication (Goal 1) ... 3 cr
ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
ENGL 1411* Composition II (Goal 1) **OR**
ENGL 1421* Honors Composition II (Goals 1,9)..... 4 cr
MATH 1460* Introduction to Statistics (Goal 4) **OR**
MATH 1461* Honors Intro to Statistics (Goals 2,4) **OR**
MATH 1470 College Algebra (Goal 4) ..... 3-4 cr

1400 or 2400 level BIOL course (BIOL 1404 Human Biology (Goal 3) **OR** BIOL 2411 Biology of Women (Goals 3,7) recommended) ..... 3 cr

Philosophy course** (PHIL 2420 Ethics or PHIL 2421 Honors Ethics (Goals 6,9) recommended) ..... 3 cr

Goal 5** (any discipline other than Psychology) ..... 3 cr

Goal 6 or 8** course (ARTS 2490, ENGL 1450, MUSC 2128, SPAN 2420, or THTR 1451 recommended) ..... 3 cr

Goal 3** course (Goal 3,10 course recommended) ..... 3 cr

Goal 6** course (choose Goal 6,7 course if you have not met the Goal 7 requirement ..... 3 cr

Fitness for Life (2 credits)

PHED 1594 Fitness for Life (or choose any other HLTH or PHED Fitness for Life course) ..... 2 cr

Student Success (3 credits)

CCST 1510 College Success Skills (or choose any other student success course) ..... 3 cr

Electives (9 credits)

Electives** ..... 9 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Semester Course Requirements

This is a sample full-time student pathway.

Semester One (15 credits)

CCST 1510 College Success Skills (or choose any other student success course) ..... 3 cr
COMM 1420 Interpersonal Communication (Goal 1) **OR**
COMM 1422* Honors Interpersonal Comm (Goal 1) **OR**
COMM 1410 Introduction to Communication (Goal 1) ... 3 cr
ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
PHED 1594 Fitness for Life (or choose any other HLTH or PHED Fitness for Life course) ..... 2 cr
PSYC 1423 Positive Psychology (Goals 5,9) ..... 3 cr

Semester Two (15 credits)

ENGL 1411* Composition II (Goal 1) **OR**
ENGL 1421* Honors Composition II (Goals 1,9) ..... 4 cr
MATH 1460* Introduction to Statistics (Goal 4) **OR**
MATH 1461* Honors Intro to Statistics (Goals 2,4) **OR**
MATH 1470 College Algebra (Goal 4) ..... 3-4 cr
PSYC 2421 General Psychology (Goals 2,5) **OR**
PSYC 2423* Honors General Psychology (Goals 2,5) ..... 4 cr
Goal 5** (any discipline other than Psychology) ..... 3 cr
Elective ..... 1 cr

Semester Three (15 credits)

BIOL 1404 Human Biology (Goal 3) OR
BIOL 2411 Biology of Women (Goals 3,7) ..... 3 cr
PSYC 2427* Statistics for Psychology (Goal 5) ..... 4 cr
PSYC 2431* Human Development (Goal 5) **OR**
PSYC 2470* Abnormal Psychology (Goals 5,7) **OR**
PSYC 2441* Social Psychology (Goals 5,7) ..... 3 cr
Goal 6 or 8** course (ARTS 2490, ENGL 1450, MUSC 2128, SPAN 2420, or THTR 1451 recommended) ..... 3 cr
Electives ..... 2 cr

Semester Four (15 credits)

Philosophy course (PHIL 2420 Ethics or PHIL 2421 Honors Ethics (Goals 6,9) recommended) ..... 3 cr
Goal 3** course (Goal 3,10 course recommended) ..... 3 cr
Goal 6** course (choose Goal 6,7 course if you have not met the Goal 7 requirement) ..... 3 cr
Electives** ..... 6 cr

**Denotes Prerequisites*
***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Transfer Opportunities

The Psychology Transfer Pathway A.A. Degree offers students a powerful option: the opportunity to complete an Associate of Arts degree with course credits that directly transfer to designated Psychology bachelor's degree programs at Minnesota State universities. The curriculum has been specifically designed so students completing this pathway degree and transferring to a Minnesota State university may enter with junior-year status. Courses in the Psychology Transfer Pathway associates degree will directly transfer and apply to the designated bachelor's degree programs. Students should consult with an advisor for guidance regarding how to best meet the requirements of their intended baccalaureate program. Universities within the Minnesota State system participating in the Psychology Transfer Pathway include:

- Bemidji State University – BA/BS
- Metropolitan State University - BA
- Minnesota State University, Mankato – BA/BS
- Minnesota State University, Moorhead - BA
- Southwest State University - BA
- St. Cloud State University - BA
- Winona State University - BA

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Sociology Transfer Pathway, A.A.

Associate of Arts Degree (TPSO)

Required/MN Transfer Curriculum ... 51
Fitness for Life/Student Success 3
Electives 6
Total Credits 60

Program Description

Sociologists study human's social lives, activities, interactions, processes, and organizations within the context of larger social, political, and economic forces. They examine how social influences affect different individuals and groups, and the ways organizations and institutions affect people's lives. The Sociology Transfer Pathway provides a broad base of general education relevant to sociology careers, and prepares students for transfer to a designated Sociology bachelor's degree program at Minnesota State universities. The sociology major teaches students how to think about individuals, groups, institutions, communities and societies in all of their complexity and interconnectedness and how to use the scientific method to ask and answer social research questions about these entities using data. Employers seek to hire candidates with strong analytic and communication skills, who can think creatively about problems, work in collaborative environments, and leverage diversity to maximize success for their organizations and employees.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Ask an economic question, gather information and resources, form an explanatory hypothesis, collect data that can be used to test the hypothesis, analyze the data, draw conclusions, and suggest future research;
- Work with mathematical formalizations of economic models and perform mathematical operations; explain the design and results of laboratory and field experiments; and explain the conduct, results, and limitations of basic econometrics;
- Explain economic models as deliberate simplifications of reality that economists create to think through complex, nondeterministic behaviors; identify the assumptions and limitations of each model and their potential impacts;
- Explain the strengths and limitations of economic data and statistical analyses; and think creatively and combine or synthesize existing economic ideas in original ways; and
- Demonstrate knowledge of major economic institutions and familiarity with magnitudes of common economic statistics.

Program Course Requirements

Required Discipline Courses (9 credits)

SOCL 1401 Introduction to Sociology (Goals 2,5) **OR**
SOCL 1403* Honors Intro to Sociology (Goals 5,8)..... 3 cr
SOCL 1472 Sociology of the Family (Goal 5) **OR**
SOCL 2405 Criminology (Goal 5)..... 3 cr
SOCL 2481 Race, Ethnicity and Oppression (Goals 5,7) **OR**
SOCL 2411 Social Problems (Goals 5,9) ..... 3 cr

Required MnTC Courses (42 credits)

COMM course (Goal 1) ..... 3 cr
ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
ENGL 1411* Composition II (Goal 1) **OR**
ENGL 1421* Honors Composition II (Goals 1,9)..... 4 cr
MATH 1460* Introduction to Statistics (Goal 4) **OR**
MATH 1461* Honors Intro to Statistics (Goals 2,4)..... 4 cr
Goal 3 courses** (2 disciplines required, 3 recommended, must include one Goal 3 lab course) ..... 6 cr
Goal 5 course** (any discipline other than Sociology)..... 3 cr
Goal 6 courses** (2 disciplines required, 3 recommended)9 cr
Goal 7 course** ..... 3 cr
Goal 8 course** ..... 3 cr
Goal 9 course** ..... 3 cr

Fitness for Life (2 credits)

HLTH or PHED Fitness for Life course ..... 2 cr

Student Success (1 credit)

CCST 1550 Introduction to College (recommended) ..... 1 cr

Electives (6 credits)

Electives as needed to total 60 credits** ..... 6 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Semester Course Requirements

This is a sample full-time student pathway.

Semester One (14 credits)

CCST 1550	Introduction to College (recommended)	1 cr
ENGL 1410	Composition I (Goal 1) **OR**	
ENGL 1420*	Honors Composition I (Goal 1)	4 cr
SOCL 1401	Introduction to Sociology (Goals 2,5) **OR**	
SOCL 1403*	Honors Intro to Sociology (Goals 5,8)	3 cr
Goal 3**		3 cr
Goal 6**		3 cr

Semester Two (16 credits)

COMM course (Goal 1)		3 cr
ENGL 1411*	Composition II (Goal 1) **OR**	
ENGL 1421*	Honors Composition II (Goals 1,9)	4 cr
SOCL 1472	Sociology of the Family (Goal 5) **OR**	
SOCL 2405	Criminology (Goal 5)	3 cr
Goal 3** w/lab course (Goals 3,10)**		3 cr
Goal 5**		3 cr

Semester Three (15 credits)

MATH 1460*	Introduction to Statistics (Goal 4) **OR**	
MATH 1461*	Honors Intro to Statistics (Goals 2,4)	4 cr
Goal 5**		3 cr
Goal 6**		3 cr
Goal 8**		3 cr
HLTH or PHED Fitness for Life course		2 cr

Semester Four (15 credits)

SOCL 2481	Race, Ethnicity and Oppression (Goals 5,7) **OR**	
SOCL 2411	Social Problems (Goals 5,9)	3 cr
Goal 6**		3 cr
Goal 7 or 9**		3 cr
Electives**		6 cr

**Denotes Prerequisites*

***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Transfer Opportunities

The Sociology Transfer Pathway A.A. Degree offers students a powerful option: the opportunity to complete an Associate of Arts degree with course credits that directly transfer to designated Sociology bachelor's degree programs at Minnesota State universities. The curriculum has been specifically designed so students completing this pathway degree and transferring to a Minnesota State university may enter with junior-year status. Courses in the Sociology Transfer Pathway associates degree will directly transfer and apply to the designated bachelor's degree programs. Students should consult with an advisor for guidance regarding how to best meet the requirements of their intended baccalaureate program. Universities within the Minnesota State system participating in the Sociology Transfer Pathway include:

- Bemidji State University – BA
- Metropolitan State University - BAS
- Minnesota State University, Mankato – BA/BS
- Minnesota State University, Moorhead – BA
- Southwest State University, BA
- St. Cloud State University - BA
- Winona State University - BA

Course Prerequisites

Some courses may require appropriate test score or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Spanish Transfer Pathway, A.A.

Associate of Arts Degree (TPSP)

MN Transfer Curriculum 48
Fitness for Life/Student Success 3
Electives 9
Total Credits 60

Program Description

The Spanish Transfer Pathway A.A. Degree provides a broad base of general education relevant to language careers, and prepares students for transfer into a Spanish baccalaureate degree at Minnesota State universities. Learning a second language is a key educational component for career and personal enhancement in the global economy. Spanish will enhance your job opportunities and add to intercultural understanding as our country evolves demographically and linguistically. The CLC Spanish Department offers beginning and intermediate level language classes. You have the opportunity to build your language skills, study Spanish-speaking cultures, participate in Service Learning, join a language club, or possibly travel abroad to gain new cultural perspectives.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate appropriate class level oral or expressive Spanish Language skills;
- Demonstrate knowledge and appreciation of cultural values, norms and traditions per Spanish Language, and will demonstrate basic understanding that these differences have an impact on group relationships and interactions;
- Demonstrate appropriate class level receptive and/or written Spanish Language skills; and
- Demonstrate appropriate cultural rules of interaction when conversing in Spanish.

Career Opportunities

Skills attained through this degree enhance students' ability to become confident and competent in today's global society. Throughout the program, students will develop and strengthen reading, writing, listening and speaking skills, while gaining knowledge and understanding of other cultures, connecting with other disciplines, and participating in multilingual communities at home and around the world. Spanish will enhance career opportunities in business, education, government, law enforcement, social services, health industry, hospitality and tourism, just to name a few. Being bilingual is an asset in any career you choose to pursue.

Program Course Requirements

Required Discipline Courses (19 credits)

SPAN 1401 Beginning Spanish I (Goal 8) ..... 4 cr
SPAN 1402 Beginning Spanish II (Goal 8) ..... 4 cr
SPAN 2401 Intermediate Spanish I (Goals 6,8) ..... 4 cr
SPAN 2404 Intermediate Spanish II (Goals 6,8) ..... 4 cr
SPAN 2420 Many Faces of Mexico (Goals 5,7) **OR**
SPAN 2425 Cultures of Latin America (Goals 5,8) ..... 3 cr

Required MnTC Courses (29 credits)

COMM 2420 Intercultural Communication (Goals 1,7) **OR**
COMM 2422 Honors Intercultural Comm (Goals 1,7) ..... 3 cr
ENGL 1410* Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
ENGL 1411* Composition II (Goal 1) **OR**
ENGL 1421* Honors Composition II (Goal 1) ..... 4 cr
Goal 2** (This goal will be fulfilled by selecting a course that also meets Goal 4, 5 or 6)
Goal 3** (include one Goal 3 and 10 course; must include one Goal 3 lab course) ..... 6 cr
Goal 4** ..... 3 cr
Goal 5** (include one Goal 5 and 9 course) ..... 6 cr
Goal 6** (any discipline other than Spanish) ..... 3 cr

Fitness for Life (2 credits)

HLTH or PHED Fitness for Life course ..... 2 cr

Student Success (1 credits)

CCST course ..... 1 cr

Electives (0-9 credits)

Courses as needed to completed 60 credits ..... 9 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*
***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

Semester Course Requirements

This is a sample full-time student pathway.

Semester One (15 credits)

ENGL 1410 Composition I (Goal 1) **OR**
ENGL 1420* Honors Composition I (Goal 1) ..... 4 cr
SPAN 1401 Beginning Spanish I (Goal 8) ..... 4 cr
Goal 3** (include one Goal 3 and 10 course; must include one Goal 3 lab course) ..... 3 cr
Goal 6** (any discipline other than Spanish) ..... 3 cr
Choose any student success (CCST) course) ..... 1 cr

Semester Two (16 credits)

ENGL 1411* Composition II (Goal 1) **OR**
ENGL 1421* Honors Composition II (Goals 1,9) ..... 4 cr
SPAN 1402 Beginning Spanish II (Goal 8) ..... 4 cr
SPAN 2420 Many Faces of Mexico (Goals 5,7) **OR**
SPAN 2425 Cultures of Latin America (Goals 5,8) ..... 3 cr
Goal 4** ..... 3 cr
Choose any HLTH or PHED Fitness for Life course ..... 2 cr

Semester Three (13 credits)

COMM 2420 Intercultural Communication (Goals 1,7) **OR**
COMM 2422* Honors Intercultural Comm (Goals 1,7) ..... 3 cr
SPAN 2401 Intermediate Spanish I (Goals 6,8) ..... 4 cr
Goal 5** (include one Goal 5 and 9 course) ..... 3 cr
Choose electives as needed to completed 60 credits ..... 3 cr

Semester Four (16 credits)

SPAN 2404 Intermediate Spanish II (Goals 6,8) ..... 4 cr
Goal 3** ..... 3 cr
Goal 5** ..... 3 cr
Electives** ..... 6 cr

**Denotes Prerequisites*
***Many courses from Goals 1 – 6 also meet Goal 7 – 10. Credits count only once. Students are advised to select MnTC courses with multiple goal assignments whenever possible.*

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Transfer Opportunities

The Spanish Transfer Pathway A.A. Degree offers students a powerful option: the opportunity to complete an Associate of Arts degree with course credits that directly transfer to designated Spanish bachelor's degree programs at Minnesota State universities. The curriculum has been specifically designed so students completing this pathway degree and transferring to a Minnesota State university may enter with junior-year status. Courses in the Spanish Transfer Pathway associates degree will directly transfer and apply to the designated bachelor's degree programs. Students should consult with an advisor for guidance regarding how to best meet the requirements of their intended baccalaureate program. Universities within the Minnesota State system participating in the Spanish Transfer Pathway include:

- Bemidji State University – BA
- Minnesota State University, Mankato – BA
- Minnesota State University, Moorhead - BA
- St. Cloud State University - BA
- Winona State University - BA

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Individualized Studies, A.A.S.

Associate of Applied Science Degree (A800)

Required Credits 5
MnTC Credits 15
Electives 40
Total Credits 60

Program Description

The Individualized Studies program is a fle ible program that provides the opportunity for the student to design a set of classes that meets their specific needs. Students work with an advisor to develop a plan that meets specific occupational or transfer goals. Individualized Studies allows students to upgrade work-related skills and knowledge or to prepare for new occupations and/or transfer degree programs.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Articulate the purpose and goals of their individualized course of study.
- Develop job search or degree transfer strategies that will lead to effective marketing of their occupational or academic skills.
- Demonstrate the proper use and understanding of either basic computer or web-based applications to function as a student or in a general office environment.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Course Requirements

CCST 1520 Career Planning .....2 cr
COMP 1101 Introduction to Computer Fundamentals .....3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following courses

COMM 1410 Introduction to Communication (Goal 1) OR
COMM 1420 Interpersonal Communication (Goal 1) OR
COMM 1422 Honors Interpersonal Comm (Goal 1) OR
COMM 1430 Public Speaking (Goals 1,2) .....3 cr
ENGL 1410 Composition (Goal 1) OR
ENGL 1420 Honors Composition I (Goal 1) OR
ENGL 1422 Practical riting (Goals 1,2) ..... 3-4 cr
Minnesota Transfer Curriculum courses ..... 8-9 cr

Students must work with a counselor to identify additional credits from technical or liberal arts disciplines to total 60 credits.
Required Electives .....40 cr

GRADUATION REQUIREMENT - 60 CREDITS
**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor or advisor and student to best meet the needs of the student.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement students must complete 25 of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Individualized Studies

Diploma (D800)

Technical Requirements 4-7
Electives..... 24-27
Total Credits.....31

Program Description

The Individualized Studies program is a fle ible program that provides the opportunity for the student to design a set of classes that meets their specific needs. Students work with an advisor to develop a plan that meets specific occupational or transfer goals. Individualized Studies allows students to upgrade work-related skills and knowledge or to prepare for new occupations and/or transfer degree programs.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Articulate the purpose and goals of their individualized course of study.
- Develop job search or degree transfer strategies that will lead to effective marketing of their occupational or academic skills.
- Demonstrate the proper use and understanding of either basic computer or web-based applications to function as a student or in a general office environment.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Course Requirements

CCST 1520 Career Planning OR
COMP 1101 Introduction to Computer Fundamentals..... 2-3 cr

Students must complete a minimum of one class from Minnesota Transfer Curriculum Goal 1 ..... 3-4 cr

Students must work with a counselor to identify 24-27 additional credits from technical or liberal arts disciplines.
Required Electives ..... 24-26 cr

GRADUATION REQUIREMENT - 31 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor or advisor and student to best meet the needs of the student.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement students must complete 25 of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Deaf Studies

Certificate (C051)

Technical Requirements 23
Total Credits 23

Program Description

American Sign Language is the third most commonly used language in the United States, behind only English and Spanish. Students taking American Sign Language courses will learn grammar, structure, and syntax of this beautiful language. They will have opportunities to interact with people who are Deaf and build a strong basis for learning ASL and using it in their future employment.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate appropriate class level oral or expressive World Language skills.
- Demonstrate knowledge and appreciation of cultural values, norms and traditions per specific World Language.
- Demonstrate basic understanding that these differences have an impact on group relationships and interactions.
- Demonstrate appropriate class level receptive and/or written World Language skills.
- Demonstrate appropriate cultural rules of interaction when conversing in the target language.

Career Opportunities

Students desiring to learn basic American Sign Language and understand the culture of people who are Deaf may elect to complete the Deaf Studies Certificate. This program will not prepare students to become interpreters, but covers the basics about ASL and Deaf culture. This certificate is appropriate for students who are planning to enter, or are currently employed in, all areas of customer relations, including but not limited to business, education, criminal justice, interpreting or the medical field. Knowledge of ASL and Deaf culture will help them to be more competitive for jobs as employers strive for diversity in the workplace. Students who complete this certificate will be in a position to use basic communication with colleagues or customers who are ASL users. Courses may also be used to satisfy interpreter training program prerequisite requirements at many institutions.

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Program Course Requirements

AMSL 1410 American Sign Language I (Goal 8).....4 cr
AMSL 1412* American Sign Language II (Goal 8).....4 cr
AMSL 2410* American Sign Language III (Goal 8).....4 cr
AMSL 2412* American Sign Language IV (Goal 8).....4 cr
AMSL 2414 Conversational ASL (Goal 1) .....1 cr
AMSL 2420 Deaf Culture (Goals 6,7) .....3 cr
COMM 2420 Intercultural Communication (Goals 1,7)....3 cr

GRADUATION REQUIREMENT - 23 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Transfer Opportunities

The second language skills acquired in ASL courses enhance a student's chance for success in any profession. Students looking beyond a certificate, or considering a future specialization in the field of American Sign Language Interpreting, should know that many institutions offering degrees in Interpreter Training will accept these courses as prerequisites to their programs.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Environmental Studies

Certificate (C400)

Technical Requirements 15
Total Credits 15

Program Description

Environmental Studies is the interdisciplinary field of study concerned with problems in the relationship between humanity, society, and the natural environment. Of particular concern is the impact of technology on the natural environment and its implications for human welfare. Courses are designed to enrich students' knowledge of biological, physical and social aspects of the environment and their awareness of environment related issues.

Program Course Requirements

BIOL 1415	Environmental Biology (Goals 3,10)	3 cr
BIOL 2415	General Ecology (Goals 3,10)	4 cr
CHEM 1410	Environmental Chemistry (Goals 3, 10)	3 cr
ENVR 1400	Intro to Environmental Studies (Goals 5,10)	3 cr
ESCI 1444	Natural Disasters (Goals 3,10)	3 cr
ESCI 1451	Oceanography (Goals 3,10)	3 cr
ESCI 1452	Oceanography Lab (Goals 3,10)	1 cr
ESCI 1454	Planet Earth (Goals 3,10)	4 cr
SOCL 2422	Culture and Environment	3 cr

GRADUATION REQUIREMENT - 15 CREDITS

**Denotes Prerequisites*

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate basic knowledge of environmental relationships;
- Think critically as they compare environmental processes with management of the world resources; and
- Understand the importance of natural science as they relate to the interconnectedness of all things through their understanding of the forces of the universe, evolution, and the importance of natural resource management around the world.

Career Opportunities

A certificate in Environmental Studies may help prepare you for careers in related fields in biology, chemistry, city and regional planning, fish and game wardens, geographic information systems, hydrology, occupational health and safety, sustainability, water resources, zoology, and wildlife biology.

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Global Studies

Certificate (C440)

Technical Requirements 18
Total Credits 18

Program Description

By completing the Global Studies Certificate, students will develop an awareness of intercultural relations skills, diversity issues, and human rights issues. They will gain an understanding of international ethical issues and America's own multicultural structure. Students are exposed to the literature, music and art of other cultures and gain knowledge of human and social geography. The program consists of an introductory course in global studies and a capstone project including a travel study option or cultural immersion experience.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Discuss individual and group human values within both an historical and contemporary dimension;
- Identify and analyze the complex local-global connections between practices, system, ideas and processes in the world;
- Analyze major global challenges and discuss how cultural, economic, ecological, and political differences affect possible solutions;
- Explain the interconnectedness of global decisions and events;
- Explain how/why the environmental well-being of the world demands personal and collective responsibility at both the local and global levels; and
- Explain the concept of a global citizen and the responsibility global citizens share for their common global future.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Course Requirements

COMM 2420 Intercultural Communication (Goals 1,7).....3 cr
GLST 1401 Introduction to Global Studies (Goals 5,8).....3 cr
GLST 2401 Global Studies Capstone (Goal 8)..... 1-3 cr
SPAN 1402* Beginning Spanish II (Goal 8).....4 cr

Select a minimum of three (3) credits from the following History/Social Behavior Sciences courses:

ANTH 1457 Cultural Anthropology (Goals 5,8).....3 cr
ESCI 1454 Planet Earth (Goals 3,10).....4 cr
GEOG 1400 Physical Geography (Goals 5,10).....3 cr
GEOG 1410 Maps and Places (Goals 5,8).....3 cr
GEOG 1421 World Regional Geography (Goals 2,5).....3 cr
GEOG 1459 Cultural Geography (Goals 5,8).....3 cr
GLST 1491 Global Studies Experience – International Travel (Goals 5,8)..... 1-4 cr
HIST 1413 World History II, 1500 to Present (Goals 5,8).....3 cr
SOCL 2422 Culture and Environment (Goals 5,10).....3 cr

Select a minimum of three (3) credits from the following Fine Arts and Humanities courses:

MUSC 1450 Music in World Cultures (Goals 6,8).....3 cr
PHIL 1411 World Religions (Goals 6,8).....3 cr
SPAN 2420 Many Faces of Mexico (Goals 6,8).....3 cr
SPAN 2425 Cultures of Latin America (Goals 5,8).....3 cr

GRADUATION REQUIREMENT - 18 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Career Opportunities

The Global Studies Certificate is designed to enable students to meet the demands of a global society. As competition for employment increases employers will be seeking employees that will enhance their organization through global and diverse perspectives. This certificate provides students with a competitive advantage that their peers may not possess. There are many career opportunities for students with Global Studies Emphasis. Students can apply their knowledge and skills in areas of business, education, international associations, non-governmental and governmental organizations, and foreign relations. Finding an entry-level job in a foreign country is increasingly popular because it improves a graduate's foreign language skill, develops local networking and creates the advantage of international work experience. Students may choose to pursue further education in International Affairs, Global Business, International Law and other programs. Many U.S. government jobs that don't require specialization or additional education are available with agencies such as the Peace Corps or in the Foreign Services. A number of international nonprofits and Nongovernmental Organizations (NGOs) offer solid entry-level positions for people without advanced degrees.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Latin American Studies

Certificate (C430)

Technical Requirements 18
Total Credits 18

Program Description

The Latin American Studies Certificate is for those who wish to enrich their understanding and appreciation of Latin American history, society, language and culture. This program is appropriate for students who strive to be professionals in an increasingly diverse society and for individuals entering or currently employed in positions in education, business, criminal justice, and other occupations where an understanding of Hispanic culture is critical towards one's efficacy in the workplace. Students will study the cultural, historical, political, economic, religious, and social realities of Mexico, Central, and South America to gain a better understanding of the Hispanic impact on the United States and the growing Latino population in Minnesota.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate knowledge and appreciation of cultural values, norms and traditions per specific world language, and basic understanding that these differences have an impact on group relationships and interactions;
- Demonstrate appropriate class level receptive and/or written world language skills; and
- Demonstrate appropriate cultural rules of interaction when conversing in the target language.

Program Course Requirements

SPAN 1402	Beginning Spanish II	4 cr
SPAN 2401	Intermediate Spanish I	4 cr
SPAN 2404	Intermediate Spanish II	4 cr
SPAN 2420	Many Faces of Mexico	3 cr
SPAN 2425	Cultures of Latin America	3 cr

GRADUATION REQUIREMENT - 18 CREDITS

**Denotes Prerequisites*

Career Opportunities

The Latin American Studies Certificate is for those who wish to enrich their understanding and appreciation of Latin American history, society, language and culture. This program is appropriate for students who strive to be professionals in an increasingly diverse society and for individuals entering or currently employed in positions in education, business, criminal justice, and other occupations where an understanding of Hispanic culture is critical towards one's efficacy in the workplace. Students will study the cultural, historical, political, economic, religious, and social realities of Mexico, Central, and South America to gain a better understanding of the Hispanic impact on the United States and the growing Latino population in Minnesota. The program includes broad regional, cultural, and language training appropriate for further academic work or careers in business, education, government, and healthcare. The certificate also will enhance a liberal arts education in fields such as history, political science, sociology, anthropology, world languages, economics, global health, and environmental science.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Individual semester plans are determined between instructor or advisor and student to best meet the needs of the student.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Women's Studies

Certificate (C290)

Total Credits 12

Program Description

Women's Studies is an interdisciplinary field that investigates the evolving experiences and contributions of women and girls within various historical, social, political, personal, and cultural contexts. Drawing upon resources from the humanities, sciences, and social sciences, our department offers a wide range of thought-provoking courses. Students can expect to study topics like gender, feminism, race, age, class, religion, sexual identity, health and wellness, and reproduction through readings, videos, collaborative projects, and independent research. Women's Studies provides a supportive environment that encourages women and men to think reflectively and critically, envision constructive new realities, respect human dignity and celebrate diversity, earn a developed understanding of the relationship between personal experience and social conditions, have a sense of humor, and take time for fun.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Gain insight into diverse cultures and understand how culture impacts perspectives.
- Demonstrate an awareness of the individual and institutional dynamics of unequal power relations between groups in contemporary society.
- Develop a foundation of knowledge about women's roles in and contributions to the economy, politics, the arts, cultures, and society in the United States and around the world.
- Examine the diversity of women's experiences, past and present, using the concept of gender to identify progress and problems.
- Identify major feminist movements and explain how they shape policies and perspectives in the United States.

Program Course Requirements

WMST 2411 Introduction to Women's Studies (Goals 5,7) .....3 cr

Choose 9 credits from the following courses:

BIOL 2411 Biology of Women (Goals 3,7) .....3 cr
ENGL 2451 Women in Literature (Goal 6).....3 cr
HLTH 1531 Women's Health .....3 cr
HIST 2420 History of Women in the U.S. (Goals 5,7)..3 cr
WMST 2420 Women and Religion (Goals 5,7) .....3 cr

GRADUATION REQUIREMENT - 12 CREDITS

**Denotes Prerequisites*

Career Opportunities

The Women's Studies Certificate compliments a wide variety of fields such as human resources, social work, psychology, English, criminal Justice, health, and political science. Students who graduate with this certificate develop skills that are highly valued by employers. These skills include problem solving, critical thinking, collaboration, research analysis, and communication.

Semester Course Requirements

Individual Semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: Cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Accountant, A.A.S.

Associate of Applied Science Degree (A010)

Program Description

Central Lakes College offers a variety of accounting degree options that prepare the student for employment upon graduation. The two-year Accountant Associate in Applied Science (A.A.S.) degree may be completed in as little as four semesters. The Accounting Diploma may be completed in two semesters. The ookkeeping Certificate may be completed in a minimum of two semesters. The ookkeeping Certificate is the ideal add-on degree for an Associate of Arts (A.A.) student who plans to transfer to a four-year university, or as an individual certificate. Fle ible program options allow students to complete the program in a way that best fits their needs and life, including taking classes on a part-time basis. Classes are offered online, in the classroom, hybrid, and LiveOnline. Central Lakes College accounting degrees prepare students for entry level positions in accounting, banking, business, or finance by teaching the necessary analytical and technical skills.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Complete the accounting cycle, and prepare classified general-purpose financial statements in good form
- Possess the tools needed to analyze financial and business information that support planning and decision making
- Apply accounting principles to business transactions in both a manual and a computerized environment
- Demonstrate a fundamental understanding of employment laws, earnings calculations, payroll ta compliance, and records maintenance
- Prepare federal and state individual ta forms with accompanying schedules in proper form
- Measure and prepare financial and non-financial information used to support strategic management and internal decision making
- Apply ethical principles in decision making
- Demonstrate effective communication skills

Program Course Requirements

ACCT 2011	Accounting Principles I	4 cr
ACCT 2012	Accounting Principles II	4 cr
ACCT 2114	Payroll Accounting	3 cr
ACCT 2121	Intermediate Accounting I	4 cr
ACCT 2123	Intermediate Accounting II	4 cr
ACCT 2137	Accounting for Governmental and Not-for-Profit Entities	3 cr
ACCT 2138	Computerized Accounting Software	3 cr
ACCT 2140	Accounting Applications	3 cr
ACCT 2161	Cost Accounting I	3 cr
ACCT 2165	Income Ta	4 cr
ACCT 2170	Federal State Ta Updates	1 cr
USN 1131	usiness Math	3 cr
USN 1166	usiness Communications	3 cr

Additional related credits (choose from the following) ...3 cr

ACCT 2350	Accounting Internship OR	
USN 2111	Management Principles OR	
USN 2114	Human Resource Principles OR	
USN 2130	Legal Environment of usiness OR	
COMP 1120	Introduction to Computer Applicants OR	
COMP 1121	Advanced Computer Applications	

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC).

Minnesota Transfer Curriculum courses .....15 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Career Opportunities

The CLC accounting program is versatile and allow graduates to pursue many different career paths. Regardless of the geographic location or population size where you want to live and work, there will be an employer who needs an accountant or at least the skill sets of an accountant. Accounting graduates can work almost anywhere. Accountants are vital in the management of every company or organization. Accountants prepare and compile journal entries to record financial transactions and payroll, communicate and summarize the current financial condition of the company using financial statements and other reports including budget analysis, prepare income ta returns and calculations, and perform accounting responsibilities and duties electronically using computerized accounting software and spreadsheet programs.

Semester Course Requirements

Semester One (14 credits)
ACCT 2011 Accounting Principles I ..... 4 cr
ACCT 2114 Payroll Accounting ..... 3 cr
USN 1131 usiness Math ..... 3 cr
Minnesota Transfer Curriculum courses ..... 4 cr

Semester Two (16 credits)
ACCT 2012 Accounting Principles II ..... 4 cr
ACCT 2138 Computerized Accounting Software..... 3 cr
ACCT 2140 Accounting Applications ..... 3 cr
Additional Related Credits ..... 3 cr
Minnesota Transfer Curriculum courses..... 3 cr

Semester Three (16 credits)
ACCT 2121 Intermediate Accounting I ..... 4 cr
ACCT 2161 Cost Accounting I ..... 3 cr
ACCT 2165 Income Ta ..... 4 cr
Minnesota Transfer Curriculum courses..... 5 cr

Semester Four (14 credits)
ACCT 2123 Intermediate Accounting II..... 4 cr
ACCT 2137 Accounting for Governmental and Not-for-Profit Entities ..... 3 cr
ACCT 2170 Federal State Ta Updates..... 1 cr
USN 1166 usiness Communications ..... 3 cr
Minnesota Transfer Curriculum courses..... 3 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Transfer Opportunities

Students planning to pursue a bachelor s degree in accounting are strongly encouraged to consult with Accounting faculty and an Advisor about transfer opportunities for specific four-year colleges. Several colleges have committed to articulation agreements and accept Central Lakes College s Accounting courses.

Certification

Upon completion of the Computerized Accounting Software course at CLC students are prepared to complete uick ooks Certified User (CU) e am. The CU credential validates the skills and knowledge the accountant. A Certified ookkeeper e am is offered by the American Institute of Professional ookkeepers. This e am covers normal accounting practices of the typical business, and may be taken after completing a 2-year Accounting Degree. The Fundamental Payroll Certification (FPC) and Certified Payroll Professional (CPP) are two payroll certifications that 2-year accounting graduates may pursue. The FPC has no e perience requirement, and the CPP e am s minimum employment requirement rages from 18 months to three years, depending on which eligibility criteria option is chosen. The State of Minnesota offers two levels of licensure for Accountants. The Registered Accounting Practitioner (RAP) certification requires a 2-year Accounting Degree and authorizes the licensee to perform but not supervise all accounting services on a formal audit. To sit for the CPA e am a candidate must have at least a bachelor s degree and meet the specific education requirements set forth by the Minnesota State oard of Accountancy. Once the CPA e am has been passed, additional licensing requirements must be met in order to receive a CPA license in Minnesota. Licensing requirements include, but are not limited to, an educational requirement of 150 semester credit hours, work e perience supervised by a current CPA, and completion of ethics e am.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement students must complete 25 of their credits at Central Lakes College;
4. Accounting courses in the program must be completed within seven (7) years.

Central Lakes College, Brainerd Campus 2020-2021

Healthcare Accounting, A.A.S.

Associate of Applied Science Degree (A011)

Technical Requirements 45
MN Transfer Curriculum 15
Total Credits 60

Program Description

Central Lakes College offers a 60-credit, two-year Healthcare Accounting Associate in Applied Science (A.A.S.) Degree. The A.A.S. degree prepares students by teaching the analytical and technical skills needed for an accounting career in the healthcare field. Students gain experience recording transactions, analyzing revenue cycle transactions, and doing realistic simulations on the most popular accounting and healthcare computer systems.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Complete the accounting cycle, and prepare classified general purpose financial statements in good form;
- Possess and utilize the tools needed to analyze financial and business information that support planning and decision making in prospective payment systems;
- Apply accounting principles to business transactions in both a manual and a computerized environment;
- Demonstrate a fundamental understanding of employment laws, earnings calculations, payroll tax compliance, ICD and CPT coding, and HIPPA as they related to healthcare rules and regulations;
- Measure and prepare financial and non-financial information used to support strategic management and internal decision making;
- Apply ethical principles in decision making;
- Demonstrate effective communication skills;
- Describe the current reimbursement processes, forms, and support practices for healthcare reimbursement;
- Explain medical billing/collection regulations and standards that apply to systems such as Medicare, Medicaid, HIPPA, and the Affordable Care Act.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Course Requirements

ACCT 2011	Accounting Principles I	4 cr
ACCT 2012*	Accounting Principles II	4 cr
ACCT 2114	Payroll Accounting	3 cr
ACCT 2121*	Intermediate Accounting I	4 cr
ACCT 2123*	Intermediate Accounting II	4 cr
ACCT 2138*	Computerized Accounting Software	3 cr
ACCT 2140	Accounting Applications	3 cr
ACCT 2161*	Cost Accounting I	3 cr
BUSN 1166	Business Communications	3 cr
HINS 1150*	Intro to DX and Procedure Coding	3 cr
HINS 1152	Medical Insurance and Billing	2 cr
HINS 1163	Medical Office Procedures	2 cr
HINS 1360	Medical Terminology	3 cr
HINS 2144	Legal Aspects of Healthcare	2 cr
HINS 2172*	Reimbursement Methodologies	2 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following courses:

BIOL 1404	Human Biology (Goal 3)	3 cr
MATH 1441	Concepts in Math (Goal 4) **OR**	
MATH 1470	College Algebra (Goal 4)	3 cr
Additional Minnesota Transfer Curriculum courses		9 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Career Opportunities

Accountants and healthcare accountants are highly employable graduates who qualify for a wide variety of jobs. More career opportunities exist in accounting today than ever before. Businesses are being held to a higher standard of financial reporting due to recent corporate scandals and financial crises. In healthcare, the onset of Electronic Health Records (EHR) has generated an increased ability to gather data to assist in the reimbursement and revenue management of healthcare organizations. As a result, the demand for accountants, revenue analysts, and auditors has expanded. Because accounting has always been considered the language of business, demand for bookkeeping, payroll, accounting, and auditing technicians remains strong. An accounting degree is versatile and allows graduates to pursue many different career paths.

Semester Course Requirements

Semester One (14 credits)

ACCT 2011	Accounting Principles I	4 cr
ACCT 2114	Payroll Accounting	3 cr
BIOL 1404	Human Biology (Goal 3)	3 cr
HINS 1152	Medical Insurance and Billing	2 cr
HINS 1163	Medical Office Procedures	2 cr

Semester Two (16 credits)

ACCT 2012*	Accounting Principles II	4 cr
ACCT 2138*	Computerized Accounting Software	3 cr
ACCT 2140	Accounting Applications	3 cr
HINS 1150*	Intro to DX and Procedure Coding	3 cr
HINS 1360	Medical Terminology	3 cr

Semester Three (16 credits)

ACCT 2121*	Intermediate Accounting I	4 cr
ACCT 2161*	Cost Accounting I	3 cr
BUSN 1166	Business Communications	3 cr
MATH 1441	Concepts in Math (Goal 4) **OR**	
MATH 1470	College Algebra (Goal 4)	3 cr
Minnesota Transfer Curriculum courses		3 cr

Semester Four (14 credits)

ACCT 2123*	Intermediate Accounting II	4 cr
HINS 2144	Legal Aspects of Healthcare	2 cr
HINS 2172*	Reimbursement Methodologies	2 cr
Minnesota Transfer Curriculum courses		6 cr

Transfer Opportunities

Students planning to pursue a bachelor's degree in accounting or healthcare administration are strongly encouraged to consult with an advisor about transfer opportunities for specific four-year colleges.

Certification

The Certified Revenue Cycle Representative (CRCR) certification is granted by the Healthcare Financial Management Association (HFMA) professional organization. Recertification must be obtained every two years. The CRCR credential is valuable for those that work within a hospital revenue cycle or work in a department that supports the hospital revenue cycle. The Certified Technical Specialist (CTS) certification is granted by the Healthcare Financial Management Association (HFMA) professional organization. This certification is designed for accounting professionals in the healthcare finance management profession. The State of Minnesota offers 2 levels of licensure for Accountants. The Registered Accounting Practitioner (RAP) certification requires a 2-year Accounting Degree and authorizes the licensee to perform but not supervise all accounting services on a formal audit. The Certified Public Accountant (CPA) license requires 5 years of college education (150 credit hours). CPAs are authorized to perform all accounting services and can supervise audits.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College;
4. Accounting courses in the program must be completed within seven (7) years.

Central Lakes College, Brainerd Campus 2020-2021

Accountant

Diploma (D013)

Technical Requirements 32
Total Credits 32

Program Description

Central Lakes College offers a variety of accounting degree options that prepare the student for employment upon graduation. The two-year Accountant Associate in Applied Science (A.A.S.) degree may be completed in as little as four semesters. The Accounting Diploma may be completed in two semesters. The ookkeeping Certificate may be completed in a minimum of two semesters. The ookkeeping Certificate is the ideal add-on degree for an Associate of Arts (A.A.) student who plans to transfer to a four-year university, or as an individual certificate. Fle ible program options allow students to complete the program in a way that best fits their needs and life, including taking classes on a part-time basis. Classes are offered online, in the classroom, hybrid, and LiveOnline. Central Lakes College accounting degrees prepare students for entry level positions in accounting, banking, business, or finance by teaching the necessary analytical and technical skills.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Complete the accounting cycle, and prepare classified general-purpose financial statements in good form;
- Possess the tools needed to analyze financial and business information that support planning and decision making;
- Apply accounting principles to business transaction in both a manual and a computerized environment;
- Demonstrate a fundamental understanding of employment laws, earnings calculations, payroll ta compliance, and records maintenance;
- Apply ethical principles in decision making; and
- Demonstrate effective communication skills.

Transfer Opportunities

Students planning to pursue a bachelor s degree in accounting are strongly encouraged to consult with Accounting faculty and an Advisor about transfer opportunities for specific four-year colleges. Several colleges have committed to articulation agreements and accept Central Lakes College s Accounting courses.

Career Opportunities

The CLC accounting program is versatile and allow graduates to pursue many different career paths. Regardless of the geographic location or population size where you want to live and work, there will be an employer who needs an accountant or at least the skill sets of an accountant. Accounting graduates can work almost anywhere. Accountants are vital in the management of every company or organization. Accounting Technicians/Clerks organize accounting records and forms such as payroll registers, general ledger entries, and reconciliations, enter invoices to pay vendors and/or record deposits and post payments to customer accounts, perform general payroll processing duties and responsibilities, and perform accounting responsibilities and duties electronically using computerized accounting software and spreadsheet programs.

Program Course Requirements

ACCT 2011	Accounting Principles I	4 cr
ACCT 2012	Accounting Principles II	4 cr
ACCT 2114	Payroll Accounting	3 cr
ACCT 2138	Computerized Accounting Software	3 cr
ACCT 2140	Accounting Applications	3 cr
USN 1131	usiness Math	3 cr
USN 1166	usiness Communications	3 cr
USN 2130	Legal Environment of usiness	3 cr
COMP 1120	Introduction to Computer Applications	3 cr

Additional related credits (choose from the following) ...3 cr

ACCT 2121	Intermediate Accounting I OR
ACCT 2123	Intermediate Accounting II OR
ACCT 2137	Accounting for Governmental and Not-for-Profit Entities OR
ACCT 2161	Cost Accounting I OR
ACCT 2165	Income Ta OR
ACCT 2350	Accounting Internship

GRADUATION REQUIREMENT - 32 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (16 credits)

ACCT 2011	Accounting Principles I	4 cr
ACCT 2114	Payroll Accounting	3 cr
USN 1131	usiness Math	3 cr
USN 2130	Legal Environment of usiness	3 cr
COMP 1120	Introduction to Computer Applications	3 cr

Semester Two (16 credits)

ACCT 2012	Accounting Principles II	4 cr
ACCT 2138	Computerized Accounting Software	3 cr
ACCT 2140	Accounting Applications	3 cr
USN 1166	usiness Communications	3 cr
Additional related credits		3 cr

Certification

Upon completion of the Computerized Accounting Software course at CLC students are prepared to complete uick ooks Certified User (CU) e am. The CU credential validates the skills and knowledge the accountant. A Certified ookkeeper e am is offered by the American Institute of Professional ookkeepers. This e am covers normal accounting practices of the typical business, and may be taken after completing a 2-year Accounting Degree. The Fundamental Payroll Certification (FPC) and Certified Payroll Professional (CPP) are two payroll certifications that 2-year accounting graduates may pursue. The FPC has no e perience requirement, and the CPP e am s minimum employment requirement rages from 18 months to three years, depending on which eligibility criteria option is chosen. The State of Minnesota offers two levels of licensure for Accountants. The Registered Accounting Practitioner (RAP) certification requires a 2-year Accounting Degree and authorizes the licensee to perform but not supervise all accounting services on a formal audit. To sit for the CPA e am a candidate must have at least a bachelor s degree and meet the specific education requirements set forth by the Minnesota State oard of Accountancy. Once the CPA e am has been passed, additional licensing requirements must be met in order to receive a CPA license in Minnesota. Licensing requirements include, but are not limited to, an educational requirement of 150 semester credit hours, work e perience supervised by a current CPA, and completion of ethics e am.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement students must complete 25 of their credits at Central Lakes College;
4. Accounting courses in the program must be completed within seven (7) years.

Central Lakes College, Brainerd Campus 2020-2021

Bookkeeping

Certificate (C010)

Technical Requirements 20
Total Credits 20

Program Description

Central Lakes College offers a variety of accounting degree options that prepare the student for employment upon graduation. The two-year Accountant Associate in Applied Science (A.A.S.) degree may be completed in as little as four semesters. The Accounting Diploma may be completed in two semesters. The ookkeeping Certificate may be completed in a minimum of two semesters. The ookkeeping Certificate is the ideal add-on degree for an Associate of Arts (A.A.) student who plans to transfer to a four-year university, or as an individual certificate. Fle ible program options allow students to complete the program in a way that best fits their needs and life, including taking classes on a part-time basis. Classes are offered online, in the classroom, hybrid, and LiveOnline. Central Lakes College accounting degrees prepare students for entry level positions in accounting, banking, business, or finance by teaching the necessary analytical and technical skills.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Complete the accounting cycle, and prepare classified general-purpose financial statements in good form.
- Apply accounting principles to business transaction in both a manual and a computerized environment.
- Demonstrate a fundamental understanding of employment laws, earnings calculations, payroll ta compliance, and records maintenance.
- Apply ethical principles in decision making.
- Demonstrate effective communication skills.

Transfer Opportunities

Students planning to pursue a bachelor s degree in accounting are strongly encouraged to consult with Accounting faculty and an Advisor about transfer opportunities for specific four-year colleges. Several colleges have committed to articulation agreements and accept Central Lakes College s Accounting courses.

Career Opportunities

The CLC accounting program is versatile and allow graduates to pursue many different career paths. Regardless of the geographic location or population size you want to live and work in, there will be an employer who needs an accountant or at least the skill sets of an accountant. Accounting graduates can work almost anywhere. Accountants are vital in the management of every company or organization. ookkeepers provide accounting support to accountants and accounting technicians, complete necessary data entry into computerized accounting software and spreadsheets, enter employee timesheet data for processing payroll, and perform accounting responsibilities and duties electronically using computerized accounting software and spreadsheet programs.

Program Course Requirements

ACCT 2011	Accounting Principles I	4 cr
ACCT 2012	Accounting Principles II	4 cr
ACCT 2114	Payroll Accounting	3 cr
ACCT 2138	Computerized Accounting Software	3 cr
ACCT 2140	Accounting Applications	3 cr
USN 1131	usiness Math	3 cr

GRADUATION REQUIREMENT - 20 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Certification

Upon completion of the Computerized Accounting Software course at CLC students are prepared to complete uick ooks Certified User (CU) e am. The CU credential validates the skills and knowledge the accountant. A Certified ookkeeper e am is offered by the American Institute of Professional ookkeepers. This e am covers normal accounting practices of the typical business, and may be taken after completing a 2-year Accounting Degree. The Fundamental Payroll Certification (FPC) and Certified Payroll Professional (CPP) are two payroll certifications that 2-year accounting graduates may pursue. The FPC has no e perience requirement, and the CPP e am s minimum employment requirement rages from 18 months to three years, depending on which eligibility criteria option is chosen. The State of Minnesota offers two levels of licensure for Accountants. The Registered Accounting Practitioner (RAP) certification requires a 2-year Accounting Degree and authorizes the licensee to perform but not supervise all accounting services on a formal audit. To sit for the CPA e am a candidate must have at least a bachelor s degree and meet the specific education requirements set forth by the Minnesota State oard of Accountancy. Once the CPA e am has been passed, additional licensing requirements must be met in order to receive a CPA license in Minnesota. Licensing requirements include, but are not limited to, an educational requirement of 150 semester credit hours, work e perience supervised by a current CPA, and completion of ethics e am.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement students must complete 25 of their credits at Central Lakes College;
4. Accounting courses in the program must be completed within seven (7) years.

Central Lakes College, Brainerd Campus 2020-2021

Agricultural Science, A.S.

Associate of Science Degree (A231)

Technical Requirements 9
MN Transfer Curriculum 51
Total Credits 60

Program Description

The Agricultural Science degree is a broad-based curriculum that includes internship options allowing it to be either a stand-alone degree or to lead to a 4-year degree in agriculture and agricultural education, food science, horticulture, and natural resources. Articulation agreements with Southwest Minnesota State University and the University of Minnesota, Crookston, are available for students electing to pursue a bachelor s degree upon completion of the Agricultural Science A.S. Degree. Students pursuing articulated degrees should consult an advisor to determine which courses transfer into their chosen degree program.

Program Course Requirements

Re uired General Education Courses (51 credits)

IOL 1431 General iology (Goal 3) ..... 5 cr
CHEM1414 Fundamentals of Chemistry (Goal 3) OR
CHEM 1407 Life Science Chemistry (Goal 3) OR
PH S 1401 College Physics I (Goal 3) ..... 4 cr
COMM 1430 Public Speaking (Goals 1 and 2) ..... 3 cr
COMM 2420 Intercultural Communication (Goals 1,7) . 3 cr
ECON 2402 Microeconomics (Goal 5) ..... 3 cr
ENGL 1410 Composition I (Goal 1) OR
ENGL 1420 Honors Composition I (Goal 1) ..... 4 cr
ENGL 1411 Composition II (Goal 1) OR
ENGL 1421 Honors Composition II (Goal 1) ..... 4 cr
MATH 1460 Introduction to Statistics (Goal 4) ..... 4 cr
MATH 1470 College Algebra (Goal 4) ..... 3 cr
PHIL 1420 Critical Thinking (Goal 2) OR
PHIL 1421 Honors Critical Thinking (Goals 1 and 2)... 3 cr

Select one course that meets both MnTC Goals 5 and 8.
One of the following courses is recommended:
GEOG 1410 Maps and Places OR
GEOG 1459 Cultural Geography OR
GLST 1401 Introduction to Global Studies..... 3

Select one course that meets both MnTC Goals 5 and 10.
One of the following courses is recommended:
EN R 1400 Introduction to Environmental Studies OR
GEOG 1400 Physical Geography OR
PS C 1425 Environmental Psychology OR
SOCL 2422 Culture and Environment ..... 3 cr

Select one course that meets both MnTC Goals 6 and 9.
One of the following courses is recommended:
PHIL 2420 Ethics OR
PHIL 2421 Honors Ethics OR
PHIL 2430 Contemporary Moral Problems.....3 cr

Select two (2) additional courses for a minimum of six (6) credits from MnTC Goal 6.
Additional MnTC Goal 6 courses 6
*** CCT 011 Principals of ccounting may be substituted for M T 1 60 ntro to Statistics for degree articulations requiring this course. Students should consult an advisor for specific programs.*

Re uired Technical Courses (9 credits)

Students will select from any of the following technical or internship courses for a total of 9 credits. Total internship credits may not e ceed 4.

Agricultural Studies
AGRI 2150 Agricultural Studies Internship..... 1-4

Animal Science
ANSI 1100 Introduction to Animal Science.....4
ANSI 1110 Food Safety From Farm to Fork.....3
ANSI 2150 Animal Science Internship..... 1-4

Horticulture
HORT 1104 Plant Science 4
HORT 1106 Applied Plant Science Lab 2
HORT 1345 Horticulture Internship..... 1-4

Natural Resources
NATR 1112 Land Measurement 3
NATR 1115 Plant Ta onomy.....2
NATR 1200 Introduction to Natural Resources.....3
NATR 1280 Introduction to GPS and GIS.....2
NATR 1310 Natural Resources Internship..... 1-4
NATR 2155 Soil Science.....3
NATR 2170 Advanced GPS and GIS 2

GRADUATION REQUIREMENT - 60 CREDITS
**Denotes Prerequisites*

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Develop as writers and speakers who use the English language effectively and who read, write, think, speak, and listen critically;
- Develop capacity to identify, discuss and reflect upon social, cultural, ethical, behavioral and environmental issues;
- Demonstrate comprehension of basic principles of chemistry or physics and biological systems;
- Increase their knowledge of and ability to employ mathematical techniques and strategies to solve problems, manage accounts or analyze data;
- Demonstrate comprehension of how markets, prices, demand, profit ma imization and other factors of production affect economic behavior of individual units of an economy;
- Increase their knowledge and understanding of techniques and practices utilized in the fields of agriculture, natural resources or horticulture; and
- Increase their awareness and understanding of careers available in the fields of agriculture, natural resources or horticulture.

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Transfer Opportunities

Students pursuing articulated degrees should consult an advisor to determine which courses transfer into their chosen degree program.

- Southwest Minnesota State University Agricultural Education, Agronomy, Agricultural Communication and Leadership, Agribusiness Management, Agricultural Solutions
- University of Minnesota, Crookston Agricultural Education.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement students must complete 25 of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Automotive Technology, A.A.S.

Associate of Applied Science Degree (A332)

Technical Requirements 45
Mn Transfer Curriculum 15
Total Credits 60

Program Description

The Automotive Technology AAS at Central Lakes College is a 16-month program that provides students with skills needed to pursue a career in any area of automotive repair. Our program and regional employers take great pride in professionalism. A dress code, attendance policy, and student conduct code are strictly enforced. Because the program is so intensive, class size is limited to ensure optimum training. The intensity of the program prepares students for the real world. A recent study conducted by the Automotive Training Managers Council (ATMC) revealed that almost 40% of service technicians are over the age of 55, and 70% are over 45 years old. That means that there will be lots of great opportunities for young people entering the auto and truck service industry in the near future.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Troubleshoot and diagnose complex vehicle operating systems;
- Access and apply manufacturers' specifications in repair and replacement;
- Perform vehicle operating system repairs and maintenance;
- Use computerized software programs to interpret and document service;
- Work independently and in teams to service, repair, test and maintain vehicles;
- Work responsibly within all shop safety and environmental guidelines and standards;
- Handle customer needs, complaints and questions about repairs/service.

Program Accreditation

The Automotive Technology program is fully accredited through the National Automotive Technicians Education Foundation (NATEF). CLC is accredited at the Master Automotive Service Technician level, the highest ranking accreditation. The curriculum aligns with standards for both regional employers and Automotive Service for Excellence (ASE) technician certification.

Career Opportunities

Trained automotive technicians are in huge demand nationwide and regionally. The career field is growing faster than the average career field, both in the nation and regionally. Graduates of the program generally find careers within the region, but alumni are all across the nation. Some common career titles for this field are service technician, service writer, technical instructor, technical trainer, sales person, and automotive parts representative. There are also opportunities for self-employment as it is common for graduates to own their own business.

Program Course Requirements

AUTM 1101	A1 Engine Repair**	4 cr
AUTM 1102*	A2 Automatic Transmission & Transaxle	4 cr
AUTM 1103	A3 Manual Drive Train & Axles	4 cr
AUTM 1104*	A4 Steering and Suspension	4 cr
AUTM 1105*	A5 Brakes	4 cr
AUTM 1106	A6 Electrical/Electronic Systems I**	4 cr
AUTM 1107*	A7 Heating and Air Conditioning	4 cr
AUTM 1108*	A8 Engine Performance I	4 cr
AUTM 1116*	A6 Electrical Electronics Systems II	4 cr
AUTM 1118*	A8 Engine Performance II	4 cr
AUTM 1120	Transportation Industry Skills I	1 cr
AUTM 1121	Transportation Industry Skills II	1 cr
AUTM 1122	Transportation Industry Skills III	1 cr
AUTM 1123	Transportation Industry Skills IV	1 cr
ENGL 1521	Technical Writing Fundamentals	1 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC).

Goal Area 1 – required	3 cr
Goal Area 2 – required	3 cr
Goal Area 3 – recommended	3 cr
Goal Area 9 – recommended	3 cr
Additional Minnesota Transfer Curriculum	3 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*
***High School Certifiable Course*

Semester Course Requirements

Semester One First Year (19 credits)

1st Half Semester

AUTM 1101 A1 Engine Repair** ..... 4 cr
AUTM 1106 A6 Electrical/Electronic Systems I** ..... 4 cr
AUTM 1120 Transportation Industry Skills I ..... 1 cr
ENGL 1521 Technical Writing Fundamentals ..... 1 cr

2nd Half Semester

AUTM 1108* A8 Engine Performance I ..... 4 cr
AUTM 1116* A6 Electrical Electronics Systems II ..... 4 cr
AUTM 1121 Transportation Industry Skills II ..... 1 cr

Semester Two First Year (18 credits)

1st Half Semester

AUTM 1102* A2 Automatic Transmission & Transaxle ..... 4 cr
AUTM 1118* A8 Engine Performance II ..... 4 cr
AUTM 1122 Transportation Industry Skills III ..... 1 cr

2nd Half Semester

AUTM 1104* A4 Steering and Suspension ..... 4 cr
AUTM 1105* A5 Brakes ..... 4 cr
AUTM 1123 Transportation Industry Skills IV ..... 1 cr

Semester Three (Summer) First Year (8 credits)

AUTM 1103 A3 Manual Drive Train and Axles ..... 4 cr
AUTM 1107* A7 Heating and Air Conditioning ..... 4 cr

Semester Four Second Year (15 credits)

Goal Area 1 – required ..... 3 cr
Goal Area 2 – required ..... 3 cr
Goal Area 3 – recommended ..... 3 cr
Goal Area 9 – recommended ..... 3 cr
Additional Minnesota Transfer Curriculum ..... 3 cr

Transfer Opportunities

All Automotive Service Excellence (ASE) area certifications (A1-A8) will transfer into the CLC Automotive Technology AAS program. Each course is aligned with the individual ASE certification area (A1-A8). CLC automotive technician courses transfer to many two- and four-year schools. Consult with an instructor, advisor, or counselor to learn about specific transfer opportunities.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Certification

Upon successful completion of all of the courses in the diploma program, students are eligible to take the ASE student certification exam.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Automotive Technology

Diploma (D332)

Technical Requirements 45
Total Credits 45

Program Description

The Automotive Technology Diploma at Central Lakes College is an 11-month program that provides students with skills needed to pursue a career in any area of automotive repair. Our program and regional employers take great pride in professionalism. A dress code, attendance policy, and student conduct code are strictly enforced. Because the program is so intensive, class size is limited to ensure optimum training. The intensity of the program prepares students for the real world. A recent study conducted by the Automotive Training Managers Council (ATMC) revealed that almost 40% of service technicians are over the age of 55, and 70% are over 45 years old. That means that there will be lots of great opportunities for young people entering the auto and truck service industry in the near future.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Troubleshoot and diagnose complex vehicle operating systems;
- Access and apply manufacturers' specifications in repair and replacement;
- Perform vehicle operating system repairs and maintenance;
- Use computerized software programs to interpret and document service;
- Work independently and in teams to service, repair, test and maintain vehicles;
- Work responsibly within all shop safety and environmental guidelines and standards;
- Handle customer needs, complaints and questions about repairs/service.

Program Accreditation

The Automotive Technology program is fully accredited through the National Automotive Technicians Education Foundation (NATEF). CLC is accredited at the Master Automotive Service Technician level, the highest ranking accreditation. The curriculum aligns with standards for both regional employers and Automotive Service for Excellence (ASE) technician certification.

Career Opportunities

Trained automotive technicians are in huge demand nationwide and regionally. The career field is growing faster than the average career field, both in the nation and regionally. Graduates of the program generally find careers within the region, but alumni can be found across the nation. Some common career titles for this field are service technician, service writer, technical instructor, technical trainer, sales person, and automotive parts representative. There are also opportunities for self-employment as it is common for graduates to own their own business.

Program Course Requirements

AUTM 1101	A1 Engine Repair**	4 cr
AUTM 1102*	A2 Automatic Transmission & Transaxle	4 cr
AUTM 1103	A3 Manual Drive Train & Axles	4 cr
AUTM 1104*	A4 Steering and Suspension	4 cr
AUTM 1105*	A5 Brakes	4 cr
AUTM 1106	A6 Electrical/Electronic Systems I**	4 cr
AUTM 1107*	A7 Heating and Air Conditioning	4 cr
AUTM 1108*	A8 Engine Performance I	4 cr
AUTM 1116*	A6 Electrical Electronics Systems II	4 cr
AUTM 1118*	A8 Engine Performance II	4 cr
AUTM 1120	Transportation Industry Skills I	1 cr
AUTM 1121	Transportation Industry Skills II	1 cr
AUTM 1122	Transportation Industry Skills III	1 cr
AUTM 1123	Transportation Industry Skills IV	1 cr
ENGL 1521	Technical Writing Fundamentals	1 cr

GRADUATION REQUIREMENT - 45 CREDITS

**Denotes Prerequisites*
***High School Certifiable Course*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One First Year (19 credits)

1st Half Semester

AUTM 1101 A1 Engine Repair** ..... 4 cr
AUTM 1106 A6 Electrical/Electronic Systems I** ..... 4 cr
AUTM 1120 Transportation Industry Skills I ..... 1 cr
ENGL 1521 Technical Writing Fundamentals ..... 1 cr

2nd Half Semester

AUTM 1108* A8 Engine Performance I ..... 4 cr
AUTM 1116* A6 Electrical Electronics Systems II ..... 4 cr
AUTM 1121 Transportation Industry Skills II ..... 1 cr

Semester Two First Year (18 credits)

1st Half Semester

AUTM 1102* A2 Automatic Transmission & Transaxle ..... 4 cr
AUTM 1118* A8 Engine Performance II ..... 4 cr
AUTM 1122 Transportation Industry Skills III ..... 1 cr

2nd Half Semester

AUTM 1104* A4 Steering and Suspension ..... 4 cr
AUTM 1105* A5 Brakes ..... 4 cr
AUTM 1123 Transportation Industry Skills IV ..... 1 cr

Semester Three (Summer) First Year (8 credits)

AUTM 1103 A3 Manual Drive Train and Axles ..... 4 cr
AUTM 1107* A7 Heating and Air Conditioning ..... 4 cr

Transfer Opportunities

All Automotive Service Excellence (ASE) area certifications (A1-A8) will transfer into the CLC Automotive Technology diploma program. Each course is aligned with the individual ASE certification area (A1-A8). CLC automotive technician courses transfer to many two- and four-year schools. Consult with an instructor, advisor, or counselor to learn about specific transfer opportunities.

Certification

Upon successful completion of all of the courses in the diploma program, students are eligible to take the ASE student certification exam.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Business Management, A.A.S.

Associate of Applied Science Degree (A030)

Technical Requirements 45
MN Transfer Curriculum 15
Total Credits 60

Program Description

Business management degrees continue to lead the nation as the number one choice of study in higher education. Students in the Business Management Program Associate in Applied Science (A.A.S.) program receive hands-on, skill-based business training that is practical and relevant for today's competitive global marketplace.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Recognize ethical, legal, and socially responsible business practices;
- Perform financial management tasks;
- Demonstrate effective written and oral business communications;
- Utilize software for business applications;
- Develop interpersonal leadership skills; and
- Access, analyze, and interpret relevant information specific to business strategies.

Program Admissions Requirements

Reading placement test required is required.

Career Opportunities

All businesses need effective leadership to succeed. The management team is responsible for providing that leadership. Managers must plan, organize, direct, and control the business operations with the ongoing challenge of earning a profit in a highly competitive global marketplace. Strong communication, problem solving, and team building skills are critical traits of successful managers. Graduates have found employment opportunities in financial institutions, retail and commercial trade, marketing, professional sales, restaurants, hotels/resorts, insurance, healthcare, and manufacturing. In addition, graduates have started their own businesses or managed family businesses.

Program Course Requirements

BUSN 1102	Accounting for Non-Accountants	3 cr
BUSN 1131	Business Math	3 cr
BUSN 1162	Customer Relations	3 cr
BUSN 1164	International Business	3 cr
BUSN 1166	Business Communications	3 cr
BUSN 2101	Entrepreneurship	3 cr
BUSN 2106	Marketing Principles	3 cr
BUSN 2108	Quality & Performance Management	3 cr
BUSN 2110	Frontline Leadership	3 cr
BUSN 2111	Management Principles	3 cr
BUSN 2114	Human Resource Principles	3 cr
BUSN 2126	Business Financial Management	3 cr
BUSN 2130	Legal Environment of Business	3 cr
COMP 1120	Introduction to Computer Applications	3 cr
COMP 1121	Advanced Computer Applications	3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC).
Minnesota Transfer Curriculum courses .....15 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor or advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Business Assistant

Certificate (C092)

Technical Requirements 18
Total Credits 18

Program Description

The Business Assistant Certificate program provides students with the entry level skills needed to perform administrative assistant duties in a variety of work settings. The Certificate includes instruction in accounting, business communications, human resources, management, and computer applications. The Business Assistant Certificate provides students with a foundation level of knowledge and skills from courses that are taught to first-year students in the Business Management program.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Read, understand, and prepare standard types of business documents
- Use appropriate office procedures as related to records information management, telephone communications, and mail management
- Produce accurate business documents and reports using computer technology and applying appropriate editing and language skills

Career Opportunities

The Business Assistant Certificate program enhances the entry level skills of individuals performing administrative duties. Graduates are employed in organizations of every type, but most are employed in service-providing industries ranging from education and health care to government and retail trade. Others may work in firms engaged in manufacturing or construction.

Program Course Requirements

BUSN 1102 Accounting for Non-Accountants.....3
BUSN 1162 Customer Relations.....3
BUSN 1166 Business Communications.....3
BUSN 2114 Human Resource Principles.....3
COMP 1120 Introduction to Computer Applications 3
COMP 1121 Advanced Computer Applications.....3

GRADUATION REQUIREMENT - 18 CREDITS

Semester Course Requirements

Individual semester plans are determined between instructor or advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Business Entrepreneurship

Certificate (C030)

Technical Requirements 18
Total Credits 18

Program Description

The Business Entrepreneurship Certificate program emphasizes the innovative and entrepreneurial skills required to success in the current business environment of continuous and unprecedented change. The ability to be responsive, flexible and creative lies at the heart of both new venture creation and ongoing businesses because each must anticipate, innovate and adapt in a rapidly changing world. The Business Entrepreneurship Certificate program is designed for those who are considering starting a business or current entrepreneurs who need the vital skills required to be a successful entrepreneur. Students experience all aspects of planning a new venture, from determining their personal vision to conducting market analysis to testing financial feasibility, drawing from the whole spectrum of business and management. The Business Entrepreneurship Certificate demonstrates why good planning leads to successful business performance.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Perform financial management tasks;
- Demonstrate effective written and oral business communications;
- Access, analyze, and interpret relevant information specific to business strategies;
- Create a business plan.

Career Opportunities

Small businesses have a presence in virtually every industry and occupation. Owners of small businesses often apply both technical knowledge and skills along with business management knowledge to create and operate a successful business venture. Several initiatives promote and create growth of entrepreneurial activity in Greater Minnesota. Completion of the program will provide the knowledge and skills necessary to successfully start and operate a small business. Students will also have the opportunity to work with the Small Business Development Center located on campus to develop successful business plans.

Program Course Requirements

BUSN 1102	Accounting for Non-Accountants	3
BUSN 1166	Business Communications	3
BUSN 2101	Entrepreneurship	3
BUSN 2106	Marketing Principles	3
BUSN 2130	Legal Environment of Business	3
BUSN 2150	Business Management Capstone	3

GRADUATION REQUIREMENT - 18 CREDITS

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Individual semester plans are determined between instructor or advisor and student to best meet the needs of the student.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Automation Technologies

Certificate (C240)

Technical Requirements 30
Total Credits 30

Program Description

This certificate provides introductory courses in production technologies and automation technologies to start students on a career pathway. Students engage in technical mathematics, introductory computer skills, print interpretation, manufacturing processes, quality control, maintenance, and safety. Course work also includes AC/DC power, digital electronics, analog circuits, and motor controls.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Gain a general knowledge of production technology processes;
- Gain knowledge and understanding of interpreting production prints;
- Apply technical mathematics skills to production processes;
- Demonstrate basic computer skills;
- Gain knowledge and understanding of AC/DC power, digital electronics, analog circuits, and motor controls;
- Graduates will be able to gain knowledge and understanding of AC/DC power, digital electronics, analog circuits, and motor controls.

Career Opportunities

Professionals educated in automation technologies install and maintain complicated systems performing an array of functions through electronic equipment. Such equipment is used by power companies, manufacturers, air traffic and missile controllers to name a few organizations that depend upon transmitted communication and sophisticated monitoring devices. Minnesota career opportunities await the trained electrical and electronics repairer. Advanced manufacturing is identified as a high-demand, high-pay industry, with entry-level employment viewed as a path for advancing a career. Career titles may include: electronics repair technician, electronic testing technician, electrical and electronic installer.

Program Course Requirements

CMAE 1502	Technical Mathematics	3 cr
CMAE 1506	Introduction to Computer Applications	2 cr
CMAE 1510	Print Reading	2 cr
CMAE 1514	MSSC Safety	2 cr
CMAE 1518	MSSC Manufacturing Processes & Production.	2 cr
CMAE 1522	MSSC Quality Practice & Measurement	2 cr
CMAE 1526	MSSC Maintenance Awareness	2 cr
CMAE 1550	DC Power	3 cr
CMAE 1552	AC Power	3 cr
CMAE 1554	Digital Electronics	3 cr
CMAE 1556	Analog Circuits	3 cr
CMAE 1558	Motor Controls	3 cr

GRADUATION REQUIREMENT - 30 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Transfer Opportunities

This certificate is offered collaboratively with Northland Community & Technical College, Northwest Technical College, Minneapolis Community and Technical College, Pine Technical College, Riverland Community College, St. Cloud Technical and Community College, and St. Paul College. Courses are transferable within all the listed colleges.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Machine Technology 360

Certificate (C181)

Technical Requirements 30
Total Credits 30

Program Description

This certificate provides students with introductory courses to production and machining technology to obtain basic skills for other manufacturing career pathways. Training prepares the graduate for an entry-level machinist production position. Students engage in technical math, introductory computer skills, print interpretation, manufacturing processes, machine tool theory and lab, quality control, maintenance and safety. The Minnesota Department of Employment and Economic Development long-term projections show the need for a number of replacement workers in the machinist occupation. Advanced manufacturing continues to be considered a high-demand, high-pay industry in Minnesota. The certificate program yields marketable skills and knowledge to entry-level employees.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Gain a general knowledge of production technology processes;
- Gain knowledge and understanding of interpreting production prints;
- Apply technical mathematics skills to production processes;
- Demonstrate basic computer skills;
- Gain knowledge and understanding of machine tool print reading, machine tool technology theory and lab principles, machining math, an introduction to computer numerical control, and geometric dimensioning and tolerancing.

Career Opportunities

Production machinists work primarily in the production of large volumes of one single part, particularly parts that require strict adherence to specs and involve many complicated operations. Machinists decide what cutting tool is used and the speed the part is made, as well as the feed rate, while the programmer is in charge of setting up the path the cut will follow. Career titles may include: machine tool operator, tool operator, production worker, machine setter or tender.

Program Course Requirements

CMAE 1502	Technical Mathematics	3 cr
CMAE 1506	Introduction to Computer Applications	2 cr
CMAE 1510	Print Reading	2 cr
CMAE 1514	MSSC Safety	2 cr
CMAE 1518	MSSC Manufacturing Processes and Production	2 cr
CMAE 1522	MSSC Quality Practice and Measurement	2 cr
CMAE 1526	MSSC Maintenance Awareness	2 cr
CMAE 1530	Machining Math	2 cr
CMAE 1532	Machine Tool Print Reading	2 cr
CMAE 1534	Machine Tool Technology Theory	2 cr
CMAE 1536	Machine Tool Technology Lab I	2 cr
CMAE 1538	Machine Tool Technology Lab II	2 cr
CMAE 1540	Introduction to CNC	3 cr
CMAE 1542	Geometric Dimensioning and Tolerancing	2 cr

GRADUATION REQUIREMENT - 30 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor or advisor and student to best meet the needs of the student.

Transfer Opportunities

This certificate is offered collaboratively with Northland Community and Technical College, Northwest Technical College, Minneapolis Community and Technical College, Pine Technical College, Riverland Community College, St. Cloud Technical and Community College, and St. Paul College. Courses are transferable within all the listed colleges.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Manufacturing Foundations 360

Certificate (C238)

Technical Requirements 8
Total Credits 8

Program Description

This program is designed to meet the entry level needs of students entering into the manufacturing environment from a variety of directions. Students completing this certificate will have a broad background in the manufacturing production enterprise. Strong foundational skills that explore the four key aspects of the manufacturing production are the core of student learning in this certificate. Successful completion of this certificate will prepare students for entry level employment in the manufacturing sector, possible advancement of position, and/or industry certification through the National Skill Standards Program.

The nationwide National Skills Standards System, based on industry-defined and federally endorsed national standards, offers both entry-level and incumbent workers the opportunity to demonstrate they have acquired the skills increasingly needed in the high growth, technology-intensive jobs of the 21st century. The National Skill Standards System awards certificates to individuals who pass any of its four Production modules: Safety Awareness; Quality Practices; Manufacturing Processes; and Maintenance Awareness. Successful completion of all four certificates earns the client a Certificate Production Technologist certification.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify appropriate safety procedures;
- Analyze specific manufacturing process procedures;
- Identify specific quality procedures;
- Identify maintenance processes and procedures; and
- Understand the coordination of industry safety programs.

Career Opportunities

Trained in manufacturing production technologies, a team assembler is part of a team responsible for assembling entire products or components of products. The assembler performs all tasks conducted by the team in the assembly process and rotates through all or most of them rather than being assigned a specific task on a permanent basis. Career titles may include: assembly line machine operator, manufacturing assembler, team assembler, assembly technician, assembly operator.

Program Course Requirements

CMAE 1514 MSSC Safety .....2 cr
CMAE 1518 MSSC Manufacturing Processes And Production 2cr
CMAE 1522 MSSC Quality Practice and Measurement.....2 cr
CMAE 1526 MSSC Maintenance Awareness .....2 cr

GRADUATION REQUIREMENT - 8 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor or advisor and student to best meet the needs of the student.

Transfer Opportunities

This certificate is offered collaboratively with Northland Community and Technical College, Northwest Technical College, Minneapolis Community and Technical College, Pine Technical College, Riverland Community College, St. Cloud Technical and Community College, and St. Paul College through the 360 Center of Excellence in Manufacturing and Applied Engineering. Courses are transferable within all the listed colleges.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Production Technologies

Certificate (C241)

Technical Requirements 16
Total Credits 16

Program Description

Courses give an introduction to production technologies and provide initial information to start students in a manufacturing career pathway. Students engage in technical math, introductory computer skills, print interpretation, manufacturing processes, quality control, maintenance and safety.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Gain a general knowledge of production technology processes;
- Gain knowledge and understanding of interpreting production prints;
- Apply technical mathematics skills to production processes; and
- Demonstrate basic computer skills.

Career Opportunities

Trained in production technologies, a team assembler is part of a team responsible for assembling entire products or components of products. The assembler performs all tasks conducted by the team in the assembly process and rotates through all or most of them rather than being assigned a specific task on a permanent basis. As a team leader one may participate in making management decisions affecting the work. Career titles may include: assembly line machine operator, manufacturing assembler, team assembler, assembly technician, assembly operator.

Transfer Opportunities

This certificate is offered collaboratively with Northland Community and Technical College, Northwest Technical College, Minneapolis Community and Technical College, Pine Technical College, Riverland Community College, St. Cloud Technical and Community College, and St. Paul College through the 360 Center of Excellence in Manufacturing and Applied Engineering. Courses are transferable within all the listed colleges.

Program Course Requirements

CMAE 1502 Technical Mathematics .....3 cr
CMAE 1506 Introduction to Computer Applications .....2 cr
CMAE 1510 Print Reading .....2 cr
CMAE 1514 MSSC Safety .....2 cr
CMAE 1518 MSSC Manufacturing Processes and Production.....2 cr
CMAE 1522 MSSC Quality Practice and Measurement.....2 cr
CMAE 1526 MSSC Maintenance Awareness .....2 cr
CMAE 1528 Career Success Skills **OR**
CMAE 1529 Career Success Skills.....1 cr

GRADUATION REQUIREMENT - 16 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Welding Technology

360 Certificate (C380)

Technical Requirements 30
Total Credits 30

Program Description

This program offers introductory course survey production technologies and welding fundamentals. Students use technical mathematics, computer skills, and hands-on experiences with specific welding processes. They learn welding print reading and symbol interpretation, manufacturing processes, quality control, metallurgy, maintenance, and safety.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Gain a general knowledge of production technology processes;
- Gain knowledge and understanding of interpreting production prints;
- Apply technical mathematics skills to production processes;
- Demonstrate basic computer skills.

Career Opportunities

Skilled welding, soldering, and brazing workers generally plan work from drawings or specifications or use their knowledge of fluxes and base metals to analyze the parts to be joined. These workers then select and set up welding equipment, execute the planned welds, and examine welds to ensure that they meet standards or specifications. Highly skilled welders work with a wide variety of materials in addition to steel, such as titanium, aluminum, or plastics. Long-term projections indicate a high demand for replacement workers in welding-related occupations. Advanced manufacturing is considered a high demand, high-pay industry in Minnesota.

Program Course Requirements

CMAE 1502	Technical Mathematics	3 cr
CMAE 1506	Introduction to Computer Applications	2 cr
CMAE 1510	Print Reading	2 cr
CMAE 1514	MSSC Safety	2 cr
CMAE 1518	MSSC Manufacturing Processes and Prod	2 cr
CMAE 1522	MSSC Quality Practice & Measurement	2 cr
CMAE 1526	MSSC Maintenance Awareness	2 cr
CMAE 1560	Interpreting Symbols	2 cr
CMAE 1562	Oxy Fuel	3 cr
CMAE 1564	SMAW	3 cr
CMAE 1566	GMAW/FCAW	3 cr
CMAE 1568	GTAW	3 cr
CMAE 1570	Metallurgy and Mechanical Properties of Materials	1 cr

GRADUATION REQUIREMENT - 30 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Transfer Opportunities

This certificate is offered collaboratively with Northland Community & Technical College, Northwest Technical College, Minneapolis Community and Technical College, Pine Technical College, Riverland Community College, St. Cloud Technical and Community College, and St. Paul College through the 360 Center of Excellence in Manufacturing and Applied Engineering. Courses are transferable within all the listed colleges.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. Cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Early Childhood Education, A.A.S.

Associate of Applied Science Degree (A281)

Technical Requirements 45
MN Transfer Curriculum 15
Total Credits 60

Program Description

The Early Childhood Education A.A.S. Degree prepares individuals to independently provide a healthy, safe, developmentally appropriate learning environment in support of families and children. The program meets current hiring standards of center-based childcare programs, Head Start, family childcare, and paraprofessional job positions. Enjoy the hands-on experiences on campus, access to latest research, and/or convenience of online learning.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Integrate child development theory with appropriate practice in early care and education settings;
- Plan, prepare, and implement effective instruction;
- Demonstrate effective oral and written communications with families, coworkers, agencies, and early childhood partners;
- Incorporate and demonstrate diverse teaching and guidance strategies appropriate to addressing the needs of children, families, and communities;
- Plan, prepare, and implement developmentally appropriate and culturally relevant activities to nurture cognitive, physical, language, social and emotional development;
- Recognize the importance of play to healthy child development and incorporate play based learning into early childhood environments;
- Demonstrate the skills of observation and record keeping of child development and learning;
- Apply professional behavior in daily work with children, families, co-workers and the community;
- Create and consistently maintain an appropriate, safe, healthy learning environment for children; and
- Recognize ethical, legal and professional responsibilities.

Program Course Requirements

CDEV 1102 Intro to Early Childhood Education .....3 cr
CDEV 1104 Child Growth and Development.....3 cr
CDEV 1106 Child Health, Wellness, Safety, and Nutrition .....3 cr
CDEV 1112* Child Behavior and Guidance .....3 cr
CDEV 1114* Diverse Children and Family Relations.....3 cr
CDEV 1116* Integration of Play.....3 cr
CDEV 2104* Observation and Assessment.....3 cr
CDEV 2106 Creative Activities and the Learning Environment.....3 cr
CDEV 2108* Introduction to Language and Literacy .....3 cr
CDEV 2116 Infant and Toddler Development, Learning, and Responsive Relationships .....3 cr
CDEV 2202* Introduction to Special Education .....3 cr
CDEV 2204* Characteristics of Children with Autism, Learning Disabilities, and Emotional Behavioral Disorders .....2 cr
CDEV 2206* Careers and Business Strategies in Early Childhood .....3 cr
CDEV 2208* Understanding and Planning Curriculum ...3 cr
CDEV 2210* Internship ..... 3-4 cr

An associate in applied science degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC).The following course is required:

ENGL 1410 Composition I (Goal 1) **OR**.....4 cr
ENGL 1422 Practical Writing (Goals 1,2).....3 cr

It is recommended that students choose from the following courses to complete the MnTC requirement:

COMM 1430 Public Speaking (Goals 1,2) .....3 cr
COMM 2420 Intercultural Communication (Goals 1,7)....3 cr
MATH 1441 Concepts in Math (Goal 4) **OR**
MATH 1470 College Algebra (Goal 4).....3 cr
PSYC 1423 Positive Psychology: The Science of Wellbeing (Goals 5,9) **OR** .....3 cr
PSYC 2421 General Psychology (Goals 2,5) **OR**.....4 cr
PSYC 2435* Educational Psychology (Goals 5,7).....3 cr
SOCL 1401 Introduction to Sociology (Goals 2,5) **OR**....3 cr
SOCL 1472 Sociology of the Family (Goal 5) **OR**.....3 cr
SOCL 2481 Race, Ethnicity, Oppression (Goals 5,7) .....3 cr
Any Goal 2, 3 or 6 course..... 3-4 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Program Admissions Requirements

The Early Childhood Education program requires students to pass a Minnesota background check to participate in all of the field experiences and internships. In addition, CLC is a member of E-LECT (e-learning for early childhood teachers), which offers an associate in applied science (A.A.S.) degree online. Talk with an advisor for more details.

Semester Course Requirements

Semester One (15-16 credits)

CDEV 1102 Intro to Early Childhood Education ..... 3 cr
CDEV 1104 Child Growth and Development ..... 3 cr
CDEV 1106 Child Health, Wellness, Safety, and Nutrition ..... 3 cr
ENGL 1410 Composition I OR ..... 4 cr
ENGL 1422 Practical Writing ..... 3 cr
Minnesota Transfer Curriculum courses ..... 3 cr

Semester Two (15 credits)

CDEV 1112* Child Behavior and Guidance ..... 3 cr
CDEV 1114* Diverse Children and Family Relations ..... 3 cr
CDEV 1116* Integration of Play ..... 3 cr
CDEV 2202* Introduction to Special Education ..... 3 cr
Minnesota Transfer Curriculum courses ..... 3 cr

Semester Three (15 credits)

CDEV 2104* Observation and Assessment ..... 3 cr
CDEV 2106 Creative Activities and the Learning Environment ..... 3 cr
CDEV 2108* Introduction to Language and Literacy ..... 3 cr
CDEV 2116 Infant and Toddler Development, Learning and Responsive Relationships ..... 3 cr
Minnesota Transfer Curriculum courses ..... 3 cr

Semester Four (14-15 credits)

CDEV 2204* Characteristics of Children with Autism, Learning Disabilities, and Emotional Behavioral Disorders ..... 2 cr
CDEV 2206* Careers and Business Strategies in Early Childhood ..... 3 cr
CDEV 2208* Understanding and Planning Curriculum ... 3 cr
CDEV 2210* Internship ..... 3-4 cr
Minnesota Transfer Curriculum courses ..... 3 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Career Opportunities

This program will prepare students for a wide range of careers which may include Early Head Start Teacher, Food Program Monitor, RBPD (Relationship-based Professional Development) Specialist, Home Visitor, Achieve Trainer I, Public School Paraprofessional or Teacher's Aide, School Age Childcare Provider. Graduates are prepared to work as a teacher in child care centers, Head Start programs, paraprofessionals, preschools, family childcare and after school programs.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Early Childhood Education

Diploma (D280)

Technical Requirements 45
MN Transfer Curriculum 15
Total Credits 60

Program Description

The Early Childhood Education Diploma prepares individuals to independently provide a healthy, safe, developmentally appropriate learning environment in support of families and children. The program meets current hiring standards of center-based childcare programs, Head Start, and family childcare positions. Parents, future childcare providers, early childhood teachers and special educators: the CLC child development program includes courses that enable any and all early childhood and school-age career pathways. Enjoy the hands-on experiences on campus, access to latest research, and/or convenience of online learning.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Integrate child development theory with appropriate practice in early care and education settings;
- Plan, prepare, and implement effective instruction;
- Demonstrate effective oral and written communications with families, coworkers, agencies, and early childhood partners;
- Incorporate and demonstrate diverse teaching and guidance strategies appropriate to addressing the needs of children, families, and communities;
- Plan, prepare, and implement developmentally appropriate and culturally relevant activities to nurture cognitive, physical, language, social and emotional development;
- Recognize the importance of play to healthy child development and incorporate play based learning into early childhood environments;
- Demonstrate the skills of observation and record keeping of child development and learning;
- Apply professional behavior in daily work with children, families, co-workers and the community;
- Create and consistently maintain an appropriate, safe, healthy learning environment for children; and
- Recognize ethical, legal and professional responsibilities.

Career Opportunities

This program will prepare students for a wide range of careers, including the following: Nanny, Camp Counselor, Guardian ad Litem, Assistant Teacher, Child Care Center Director, Youth Worker, Recreation Leader/Director, Child Care Lead Teacher, Teacher's Aide, Family Child Care Provider, and School Age Child Care Provider. Graduates of this program are prepared to work at childcare centers, Head Start programs, school districts, preschools, family childcare and after school programs.

Program Course Requirements

CDEV 1102	Introduction to Early Childhood Education	3 cr
CDEV 1104	Child Growth and Development	3 cr
CDEV 1106	Child Health, Wellness, Safety, and Nutrition	3 cr
CDEV 1112*	Child Behavior and Guidance	3 cr
CDEV 1114*	Diverse Children and Family Relations	3 cr
CDEV 1116*	Integration of Play	3 cr
CDEV 2106	Creative Activities and the Learning Environment **OR**	
CDEV 2116	Infant and Toddler Development, Learning, and Responsive Relationships	3 cr
CDEV 2206*	Careers and Business Strategies in Early Childhood	3 cr
CDEV 2210*	Internship	3 - 4 cr
ENGL 1410	Composition I (Goal 1) **OR**	4 cr
ENGL 1422	Practical Writing (Goals 1,2)	3 cr

GRADUATION REQUIREMENT - 31 CREDITS

**Denotes Prerequisites*

Program Admissions Requirements

The Early Childhood Education program requires students to pass a Minnesota background check to participate in all of the field experiences and internships. In addition, CLC is a member of E-LECT (e-learning for early childhood teachers), which offers an associate in applied science (A.A.S.) degree online. Talk with an advisor for more details.

Semester Course Requirements

Semester One (15-16 credits)

CDEV 1102 Introduction to Early Childhood Education ...3 cr
CDEV 1104 Child Growth and Development .....3 cr
CDEV 1106 Child Health, Wellness, Safety, and Nutrition .....3 cr
CDEV 2106 Creative Activities and the Learning Environment **OR**
CDEV 2116 Infant and Toddler Development, Learning, and Responsive Relationships .....3 cr
ENGL 1410 Composition I (Goal 1) **OR** .....4 cr
ENGL 1422 Practical Writing (Goals 1,2) .....3 cr

Semester Two (15-16 credits)

CDEV 1112* Child Behavior and Guidance .....3 cr
CDEV 1114* Diverse Children and Family Relations .....3 cr
CDEV 1116* Integration of Play .....3 cr
CDEV 2206* Careers and Business Strategies in Early Childhood .....3 cr
CDEV 2210* Internship .....3-4 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Computer Information Technology, A.A.S.

Associate of Applied Science Degree (A103)

Technical Requirements 45
MN Transfer Curriculum 15
Total Credits 60

Program Description

IT specialists are in high demand. The Information Technology Specialist Program will prepare graduates by introducing them to a wide 0076ariety of subjects in information and emerging technologies they will encounter in the field. Subjects covered include computer troubleshooting and repair, basic networking, operating systems, supporting common end user applications, as well as soft skills like oral and written communication, and customer service. The curriculum is delivered using currently released industry software including OS, NOS and applications. This program teaches skills needed to work for companies with small to mid-size help desks or large corporate user support centers. Instructors are industry certified professionals with years of experience in the classroom and industry.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Perform computer information technology practices and procedures required for entry to mid-level employment;
- Perform computer information technology entry to mid-level skill sets and apply theoretical principles;
- Install, manage, configure and use functions and features of current releases of operating systems, network operating systems and applications;
- Install, troubleshoot and repair computer equipment and peripherals;
- Test successfully on competencies required to pass industry certification exams;
- Locate, evaluate and properly utilize the tools and resources appropriate to a computer technology professional;
- Evaluate, identify and apply appropriate security standards; and
- Communicate effectively with technical and non-technical audiences.

Program Course Requirements

COMP 1109 Introduction to Operating Systems .....3 cr
COMP 1131 Microsoft Word Comprehensive .....4 cr
COMP 1132 Microsoft Access Comprehensive .....4 cr
COMP 1133 Microsoft PowerPoint Comprehensive .....3 cr
COMP 1134 Microsoft Outlook Comprehensive .....1 cr
COMP 1135 Microsoft Excel Comprehensive .....4 cr
COMP 1204 Computer Repair I – A+ Hardware .....4 cr
COMP 1206* Computer Repair II –A+ Operating Systems.....3 cr
COMP 1230* Network Essentials .....4 cr
COMP 1253* Client Operating Systems Administration.....4 cr
COMP 2111* Security Essentials .....4 cr
COMP 2160* Ethics in Information Technology.....3 cr
COMP 2202* Computer User Support .....3 cr

Students must also select a minimum of one (1) additional credit from any course with a COMP prefix. One of the following courses is recommended:

COMP 2115* Command Line PowerShell Administration.....4 cr
COMP 2150* Windows Server Administration I.....5 cr
COMP 2213* Computer Careers Internship ..... 1-6 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following courses:

COMM 1410 Introduction to Communication (Goal 1) **OR**
COMM 1420 Interpersonal Communication (Goal 1) **OR**
COMM 1430 Public Speaking (Goals 1,2) **OR**
COMM 2420 Intercultural Communication (Goals 1,7) ..3 cr
ENGL 1422 Practical Writing (Goals 1,2).....3 cr
Additional Minnesota Transfer Curriculum courses .....9 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (14 credits)

COMP 1109 Introduction to Operating Systems ..... 3 cr
COMP 1131 Microsoft Word Comprehensive ..... 4 cr
COMP 1133 Microsoft PowerPoint Comprehensive..... 3 cr
COMP 1134 Microsoft Outlook Comprehensive ..... 1 cr
COMP 1204 Computer Repair I – A+ Hardware..... 4 cr

Semester Two (15 credits)

COMP 1135 Microsoft Excel Comprehensive ..... 4 cr
COMP 1206* Computer Repair II –A+ Operating Systems..... 3 cr
COMP 1253* Client Operating Systems Administration ..... 4 cr
COMP 1230* Network Essentials ..... 4 cr

Semester Three (15 credits)

COMP 2160* Ethics in Information Technology ..... 3 cr
Minnesota Transfer Curriculum courses..... 12 cr

Semester Four (15 credits)

COMP 1132 Microsoft Access Comprehensive..... 4 cr
COMP 2111* Security Essentials ..... 4 cr
COMP 2202* Computer User Support..... 3 cr
Additional COMP course..... 1 cr
Minnesota Transfer Curriculum courses..... 3 cr

Career Certification

This program will prepare students for the following certifications: Microsoft MCP, MCITP, and MCSA; Comp TIA A+, Network+, Server+, Security+, Project +, Help Desk 2000 CHDP, Help Desk Institute CSS and HDA, and others. Central Lakes College is a Prometric, VUE, and Certiport Authorized Test Center. All certification exams can be delivered onsite.

Career Opportunities

Information technology (IT) specialists work together to improve existing computer systems and support end user technologies in an organizational setting. They help plan and develop new systems, install hardware, install software, support end user training and troubleshoot systems. Computers are not “one size fits all,” especially when it comes to business. Different companies have different needs. An IT specialist uses skills from multiple areas to plan, configure, repair or troubleshoot end user systems and even server-based systems. IT specialists work closely with network administrators and engineers in larger organizations and carry out the day to day troubleshooting, upgrading and repair of client systems. This program will prepare students for a wide range of careers in the IT field, including computer support technician, computer technologist, help desk technician, information technology specialist, IT analyst, Microsoft certified professional, network support technician, PC support specialist, technical support analyst and technical support manager.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Computer Network Administration, A.A.S.

Associate of Applied Science Degree (A101)

Technical Requirements 45
MN Transfer Curriculum 15
Total Credits 60

Program Description

The Computer Network Administration Associate of Applied Science (A.A.S.) program is an exciting track offered by Central Lakes College. Coursework includes general networking technologies, network troubleshooting, operating system technologies, disaster recovery, computer repair, and security fundamentals. This program covers an overview of networking technologies that graduates can expect to work with in small to mid-size organization settings and delivers curriculum using current industry software, including Operating System (OS), Network Operating System (NOS) and other applications. CLC's information technology (IT) instructors are industry certified professionals with multiple years of experience in their respective disciplines both in the classroom and in industry.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Perform computer information technology practices and procedures required for entry to mid-level employment;
- Perform computer information technology entry to mid-level skill sets and apply theoretical principles;
- Install, manage, configure and use functions and features of current releases of operating systems, network operating systems and applications;
- Install , troubleshoot and repair computer equipment and peripherals;
- Test successfully on competencies required to pass industry certification exams;
- Locate, evaluate and properly utilize the tools and resources appropriate to a computer technology professional;
- Evaluate, identify and apply appropriate security standards; and
- Communicate effectively with technical and non-technical audiences.

Program Course Requirements

COMP 1109 Introduction to Operating Systems .....3 cr
COMP 1120 Introduction to Computer Applications ....3 cr
COMP 1204 Computer Repair I – A+ Hardware .....4 cr
COMP 1206* Computer Repair II –A+ Operating Systems.....3 cr
COMP 1230* Network Essentials .....4 cr
COMP 1253* Client Operating Systems Administration.....4 cr
COMP 2111* Security Essentials .....4 cr
COMP 2115* Command Line PowerShell Administration.....4 cr
COMP 2150* Windows Server Administration I.....5 cr
COMP 2151* Windows Server Administration II.....5 cr
COMP 2152* Windows Server Administration III.....5 cr
ENGL 1422 Practical Writing (Goals 1,2) .....3 cr

Students must also select a minimum of one (1) additional credit from any course with a COMP prefix. One of the following courses is recommended:

COMP 1121* Advanced Computer Applications .....3 cr
COMP 1134 Microsoft Outlook Comprehensive .....1 cr
COMP 2160* Ethics in IT .....3 cr
COMP 2213* Computer Careers Internship ..... 1-6 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following courses:

COMM 1410 Introduction to Communication (Goal 1) **OR**
COMM 1420 Interpersonal Communication (Goal 1) **OR**
COMM 1430 Public Speaking (Goals 1,2) **OR**
COMM 2420 Intercultural Communication (Goals 1,7) ..3 cr
ENGL 1422 Practical Writing (Goals 1,2).....3 cr
Additional Minnesota Transfer Curriculum courses .....9 cr

GRADUATION REQUIREMENT - 67 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (15 credits)

COMP 1109	Introduction to Operating Systems	3 cr
COMP 1120	Introduction to Computer Applications	3 cr
COMP 1204	Computer Repair I – A+ Hardware	4 cr
	MnTC	5 cr

Semester Two (15 credits)

COMP 1206*	Computer Repair II –A+ Operating Systems	3 cr
COMP 1230*	Network Essentials	4 cr
COMP 1253*	Client Operating Systems Administration	4 cr
Minnesota Transfer Curriculum courses		4 cr

Semester Three (15 credits)

COMP 2115*	Command Line PowerShell Administration	4 cr
COMP 2150*	Windows Server Administration I	5 cr
ENGL 1422	Practical Writing	3 cr
Additional COMP course		1 cr
	MnTC	5 cr

Semester Four (15 credits)

COMP 2111*	Security Essentials	4 cr
COMP 2151*	Windows Server Administration II	5 cr
COMP 2152*	Windows Server Administration III	5 cr
Minnesota Transfer Curriculum courses		1 cr

Career Opportunities

Computer network administrators design, install, and support an organization's network infrastructure. They may also plan, coordinate, and direct the computer-related activities of an organization, making sure all parts of a computer network work to meet the organization's goals. Finally, computer network administrators provide day-to-day support for software users and direct the work of other computer specialists such as analysts, programmers, and technicians. This program will help students prepare for careers in networking such as MCSE, MCSA, network administrator, network engineer, systems analyst, location area network (LAN) administrator, wide area network (WAN) administrator, network security specialist and systems engineer.

Career Certification

This program will prepare students for the following certifications: Microsoft Certified Systems Engineer (MCSE), Microsoft Certified Systems Administrator (MCSA), Microsoft Certified Professional (MCP), Microsoft Certified Desktop Support Technician (MCDST), CompTIAA+, Network+, Server+, Security+, and others. Central Lakes College is a Prometric, VUE, and Certiport Authorized Test Center. All certification exams can be delivered on-site.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Computer Information Technology

Diploma (D102)

Technical Requirements 48
Total Credits 48

Program Description

The Information Technology Specialist program will prepare graduates by introducing them to a wide variety of emerging technologies they will encounter in the workplace. Subjects covered include computer troubleshooting and repair, basic networking, operating systems, supporting common end user applications, as well as soft skills like oral and written communication, and customer service. The curriculum is delivered using currently released industry software including OS, NOS, and applications. This program teaches skills needed to work for companies with small to mid-size help desks or large corporate user support centers. Instructors are industry certified professionals with years of experience in the classroom and industry.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Perform computer information technology practices and procedures required for entry to mid-level employment;
- Perform computer information technology entry to mid-level skill sets and apply theoretical principles;
- Install, manage, configure and use functions and features of current releases of operating systems, network operating systems and applications;
- Install, troubleshoot and repair computer equipment and peripherals;
- Test successfully on competencies required to pass industry certification exams;
- Locate, evaluate and properly utilize the tools and resources appropriate to a computer technology professional;
- Evaluate, identify and apply appropriate security standards; and
- Communicate effectively with technical and non-technical audiences.

Program Course Requirements

COMP 1109	Introduction to Operating Systems	3 cr
COMP 1131	Microsoft Word Comprehensive	4 cr
COMP 1132	Microsoft Access Comprehensive	4 cr
COMP 1133	Microsoft PowerPoint Comprehensive	3 cr
COMP 1134	Microsoft Outlook Comprehensive	1 cr
COMP 1135	Microsoft Excel Comprehensive	4 cr
COMP 1204	Computer Repair I – A+ Hardware	4 cr
COMP 1206*	Computer Repair II –A+ Operating Systems	3 cr
COMP 1230*	Network Essentials	4 cr
COMP 1253*	Client Operating Systems Administration	4 cr
COMP 2111*	Security Essentials	4 cr
COMP 2160*	Ethics in Information Technology	3 cr
COMP 2202*	Computer User Support	3 cr
ENGL 1422	Practical Writing (Goals 1 and 2)	3 cr

Students must also select a minimum of one (1) additional credit from any course with a COMP prefix. One of the following courses is recommended:

COMP 2115*	Command Line PowerShell Administration	4 cr
COMP 2150*	Windows Server Administration I	5 cr
COMP 2213*	Computer Careers Internship	1-6 cr

GRADUATION REQUIREMENT - 48 CREDITS

**Denotes Prerequisites*

Career Certification

This program will prepare students for the following certifications: Microsoft MCP, MCITP, and MCSA; Comp TIA A+, Network+, Server+, Security+, Project +, Help Desk 2000 CHDP, Help Desk Institute CSS and HDA, and others. Central Lakes College is a Prometric, VUE, and Certiport Authorized Test Center. All certification exams can be delivered onsite.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (12 credits)

COMP 1109	Introduction to Operating Systems	3 cr
COMP 1131	Microsoft Word Comprehensive	4 cr
COMP 1134	Microsoft Outlook Comprehensive	1 cr
COMP 1204	Computer Repair I – A+ Hardware	4 cr

Semester Two (15 credits)

COMP 1135	Microsoft Excel Comprehensive	4 cr
COMP 1206*	Computer Repair II –A+ Operating Systems	3 cr
COMP 1253*	Client Operating Systems Administration	4 cr
COMP 1230*	Network Essentials	4 cr

Semester Three (10 credits)

COMP 1133	Microsoft PowerPoint Comprehensive	3 cr
COMP 2160*	Ethics in Information Technology	3 cr
ENGL 1422	Practical Writing	3 cr
	Additional COMP course	1 cr

Semester Four (11 credits)

COMP 1132	Microsoft Access Comprehensive	4 cr
COMP 2111*	Security Essentials	4 cr
COMP 2202*	Computer User Support	3 cr

Career Opportunities

Information Technology (IT) specialists are in high demand. They plan and develop new systems, install hardware, install software, support end user training, and troubleshoot systems. An IT specialist uses skills from multiple areas to plan, configure, repair or troubleshoot end user systems and even server-based systems. IT specialists work closely with network administrators and engineers in larger organizations and carry out the day to day troubleshooting, upgrading and repair of client systems. This program prepares students for a wide range of careers in the IT field, including computer support technician, computer technologist, help desk technician, information technology specialist, IT analyst, Microsoft certified professional, network support technician, PC support specialist, technical support analyst and technical support manager.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Computer Network Administration

Diploma (D101)

Technical Requirements 48
Total Credits 48

Program Description

The Computer Network Administration Diploma program is an exciting track offered by Central Lakes College. Coursework includes general networking technologies, network troubleshooting, operating system technologies, disaster recovery, computer repair, and security fundamentals. This program covers an overview of networking technologies that graduates can expect to work with in small to mid-size organization settings and delivers curriculum using current industry software, including Operating System (OS), Network Operating System (NOS) and other applications. CLC's information technology (IT) instructors are industry certified professionals with multiple years of experience in their respective disciplines both in the classroom and in industry.

Career Opportunities

Computer network administrators design, install, and support an organization's network infrastructure. They may also plan, coordinate, and direct the computer-related activities of an organization, making sure all parts of a computer network work to meet the organization's goals. Finally, computer network administrators provide day-to-day support for software users and direct the work of other computer specialists such as analysts, programmers, and technicians. This program will help students prepare for careers in networking such as MCSE, MCSA, network administrator, network engineer, systems analyst, location area network (LAN) administrator, wide area network (WAN) administrator, network security specialist and systems engineer.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Perform computer information technology practices and procedures required for entry to mid-level employment;
- Perform computer information technology entry to mid-level skill sets and apply theoretical principles;
- Install, manage, configure and use functions and features of current releases of operating systems, network operating systems and applications;
- Install, troubleshoot and repair computer equipment and peripherals;
- Test successfully on competencies required to pass industry certification exams;
- Locate, evaluate and properly utilize the tools and resources appropriate to a computer technology professional;
- Evaluate, identify and apply appropriate security standards;
- Communicate effectively with technical and non-technical audiences.

Program Course Requirements

COMP 1109	Introduction to Operating Systems	3 cr
COMP 1120	Introduction to Computer Applications	3 cr
COMP 1204	Computer Repair I – A+ Hardware	4 cr
COMP 1206*	Computer Repair II –A+ Operating Systems	3 cr
COMP 1230*	Network Essentials	4 cr
COMP 1253*	Client Operating Systems Administration	4 cr
COMP 2111*	Security Essentials	4 cr
COMP 2115*	Command Line PowerShell Administration	4 cr
COMP 2150*	Windows Server Administration I	5 cr
COMP 2151*	Windows Server Administration II	5 cr
COMP 2152*	Windows Server Administration III	5 cr
ENGL 1422	Practical Writing (Goals 1,2)	3 cr

Students must also select a minimum of one (1) additional credit from any course with a COMP prefix. One of the following courses is recommended:

COMP 1121*	Advanced Computer Applications	3 cr
COMP 1134	Microsoft Outlook Comprehensive	1 cr
COMP 2160*	Ethics in IT	3 cr
COMP 2213*	Computer Careers Internship	1-6 cr

GRADUATION REQUIREMENT - 48 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (11 credits)

COMP 1109	Introduction to Operating Systems	3 cr
COMP 1120	Introduction to Computer Applications	3 cr
COMP 1204	Computer Repair I – A+ Hardware	4 cr
	Additional COMP course	1 cr

Semester Two (11 credits)

COMP 1206*	Computer Repair II –A+ Operating Systems	3 cr
COMP 1230*	Network Essentials	4 cr
COMP 1253*	Client Operating Systems Administration	4 cr

Semester Three (12 credits)

COMP 2115*	Command Line PowerShell Administration	4 cr
COMP 2150*	Windows Server Administration I	5 cr
ENGL 1422	Practical Writing	3 cr

Semester Four (11 credits)

COMP 2111*	Security Essentials	4 cr
COMP 2151*	Windows Server Administration II	5 cr
COMP 2152*	Windows Server Administration III	5 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Career Certification

This program will prepare students for the following certifications: Microsoft Certified Systems Engineer (MCSE), Microsoft Certified Systems Administrator (MCSA), Microsoft Certified Professional (MCP), Microsoft Certified Desktop Support Technician (MCDST), CompTIAA+, Network+, Server+, Security+, and others. Central Lakes College is a Prometric, VUE, and Certiport Authorized Test Center. All certification exams can be delivered on-site.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Computer Support Specialist

Diploma (D100)

Technical Requirements 37
Total Credits 37

Program Description

The Computer Support Specialist Diploma program will prepare graduates by introducing them to a wide variety of subjects in information and emerging technologies they will encounter in the field. Subjects covered include computer troubleshooting and repair, basic networking, operating systems, supporting common end-user applications, as well as soft skills such as oral and written communication, and customer service. This program teaches skills needed to work for companies with small to mid-size help desks or large corporate user support centers. Our program delivers curriculum using currently released industry software, including Operating System (OS) and Network Operating System (NOS), and the instructors are industry certified professionals with years of experience in the classroom and industry.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Perform computer information technology practices and procedures required for entry to mid-level employment;
- Perform computer information technology entry to mid-level skill sets and apply theoretical principles;
- Install, manage, configure and use functions and features of current releases of operating systems, network operating systems and applications;
- Install , troubleshoot and repair computer equipment and peripherals;
- Evaluate, identify and apply appropriate security standards; and
- Communicate effectively with technical and non-technical audiences.

Program Course Requirements

COMP 1109	Introduction to Operating Systems	3 cr
COMP 1131	Microsoft Word Comprehensive	4 cr
COMP 1132	Microsoft Access Comprehensive	4 cr
COMP 1133	Microsoft PowerPoint Comprehensive	3 cr
COMP 1134	Microsoft Outlook Comprehensive	1 cr
COMP 1135	Microsoft Excel Comprehensive	4 cr
COMP 1204*	Computer Repair I – A+ Hardware	4 cr
COMP 1206*	Computer Repair II –A+ Operating Systems	3 cr
COMP 1230*	Network Essentials	4 cr
COMP 1253*	Client Operating Systems Administration	4 cr
COMP 2202*	Computer User Support	3 cr

GRADUATION REQUIREMENT - 37 CREDITS

**Denotes Prerequisites*

Program Certification

This program will prepare students for the following certifications: Microsoft Certified Professional (MCP) and Microsoft Certified IT Professional (MCITP), Microsoft Certified Solutions Associate (MCSA), Comp TIA A+, and others. Central Lakes College is a Prometric, VUE and Certiport Authorized Test Center. All certifications exams can be delivered on-site.

Career Opportunities

Computer support specialists are in high demand. They help people solve problems with their computer hardware and software. They help coworkers and people who purchase their company's products to troubleshoot the problem and determine whether to make repairs or make changes to the computer setup. Computer support specialists read technical manuals to determine the problem, test computers to make sure they work, and help determine a company's computer needs. At larger companies, specialists may teach staff how to use new software. A computer support specialist who works with customers may teach customers how to install software or hardware or how to use the software purchased.

Semester Course Requirements

Semester One (11 credits)

COMP 1109 Introduction to Operating Systems ..... 3 cr
COMP 1131 Microsoft Word Comprehensive ..... 4 cr
COMP 1204 Computer Repair I – A+ Hardware..... 4 cr

Semester Two (11 credits)

COMP 1135 Microsoft Excel Comprehensive ..... 4 cr
COMP 1132 Microsoft Access Comprehensive..... 4 cr
COMP 1206* Computer Repair II –A+ Operating Systems..... 3 cr

Semester Three (4 credits)

COMP 1133 Microsoft PowerPoint Comprehensive..... 3 cr
COMP 1134 Microsoft Outlook Comprehensive ..... 1 cr

Semester Four (11 credits)

COMP 1253* Client Operating Systems Administration..... 4 cr
COMP 1230* Network Essentials ..... 4 cr
COMP 2202* Computer User Support..... 3 cr

One-year scheduling option:

All Fall Semester courses in 1st year ..... 15 cr
All Spring Semester courses in 1st year ..... 22 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Microsoft Office Professional

Certificate (C080)

Technical Requirements 19
Total Credits 19

Program Description

This program is designed to teach students to become proficient and expert users in the Microsoft Office Suite of application programs including Word, Access, Excel, PowerPoint and Outlook. Students will learn desktop application operating skills to meet globally recognized standards, along with advanced skills using Word, Access, Excel, PowerPoint and Outlook.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Use the Microsoft Word 2016 software application and Office 365 to effectively create documents, newsletters, research papers, and create mail merge functions;
- Use the Microsoft Access 2016 software application and Office 365 to effectively create databases, database objects, reports, queries, forms, and macros;
- Use the Microsoft PowerPoint 2016 software application and Office 365 to effectively create advanced graphic presentations and handouts;
- Use the Microsoft Office 2016 software application and Office 365 to effectively create and format message content by using character and paragraph formatting, use graphic elements such as charts and tables, and create contact records, tasks, create appointments from incoming messages, create contact groups, schedule meetings, and share schedules to facilitate communication with other Outlook users; and
- Use the Microsoft Excel 2016 software application and Office 365 to effectively create advanced spreadsheets, charts, graphs, and analyses using multiple advanced formulas and functions.

Career Opportunities

Skills learned in the Microsoft Office Professional Certificate are designed to help office managers, technicians, administrative support personnel, and organization users of the Microsoft Office Suite become application specialists.

Program Course Requirements

COMP 1109 Introduction to Operating Systems .....3 cr
COMP 1131 Microsoft Word Comprehensive .....4 cr
COMP 1132 Microsoft Access Comprehensive .....4 cr
COMP 1133 Microsoft PowerPoint Comprehensive .....3 cr
COMP 1134 Microsoft Outlook Comprehensive .....1 cr
COMP 1135 Microsoft Excel Comprehensive .....4 cr

GRADUATION REQUIREMENT - 19 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One First Year (11 credits)

COMP 1109 Introduction to Operating Systems ..... 3 cr
COMP 1131 Microsoft Word Comprehensive ..... 4 cr
COMP 1133 Microsoft PowerPoint Comprehensive ..... 3 cr
COMP 1134 Microsoft Outlook Comprehensive ..... 1 cr

Semester Two First Year (15 credits)

COMP 1135 Microsoft Excel Comprehensive ..... 4 cr
COMP 1132 Microsoft Access Comprehensive ..... 4 cr

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Criminal Justice, A.A.S.

Associate of Applied Science Degree (A109)

Technical Requirements 56
MN Transfer Curriculum 16
Total Credits 72

Program Description

Finish your Criminal Justice A.A.S. Degree in just two years with these challenging, hands-on courses. Students will get a first-hand look into the current industry technologies, methods and law enforcement practices. A fleet of new, state-of-the-art squad cars gives students a driver's seat view into law enforcement. Because of a close partnership between area law enforcement and the college, students have a wide selection of choices for internships. With this A.A.S degree, you can pursue law enforcement careers in areas such as police officer, deputy, state patrol, conservation officer, or corrections officer.

Program Course Requirements

CRJU 1101 Criminal Justice..... 3 cr
CRJU 1104 Juvenile Justice ..... 3 cr
CRJU 2101*+ Criminal Law ..... 3 cr
CRJU 2102* Criminal Procedures ..... 4 cr
CRJU 2108 Criminal Investigations ..... 3 cr
CRJU 2114+ Traffic Law ..... 3 cr
CRJU 2124 General Evidence and Identification Prep .. 4 cr
CRJU 2140 Law Enforcement and Behavioral Science.. 3 cr

Law Enforcement Pathway

Select a minimum of 30 credits from these courses:

CRJU 1106 Corrections & Probation..... 3 cr
CRJU 1109 Report Writing..... 3 cr
CRJU 1112 Police and the Community ..... 3 cr
CRJU 2106+ Fitness for Law Enforcement..... 2 cr
CRJU 2116 Science of Fingerprints ..... 4 cr
CRJU 2118 Criminal Justice Photography ..... 4 cr
CRJU 2135 Internship ..... 4-8 cr
CRJU 2160 Use of Force..... 2 cr
CRJU 2162 Firearms..... 3 cr
CRJU 2164 Patrol Practicals ..... 5 cr
CRJU 2166 Tactical Communications/Relations ..... 2 cr
CRJU 2311 Basic Firearms..... 1 cr
CRJU 2315 Post Prep ..... 1 cr

Criminal Justice Pathway

Select a minimum of 30 credits from these courses:

CRJU 1106 Corrections & Probation..... 3 cr
CRJU 1108 Community Corrections..... 3 cr
CRJU 1109 Report Writing..... 3 cr
CRJU 1112 Police and the Community ..... 3 cr
CRJU 1125 Personal Protection Awareness..... 2 cr
CRJU 2106+ Fitness for Law Enforcement..... 2 cr
CRJU 2112 Ballistic and Firearms Identification ..... 4 cr
CRJU 2116 Science of Fingerprints .....4 cr
CRJU 2118 Criminal Justice Photography .....4 cr
CRJU 2135 Internship ..... 4-8 cr
CRJU 2311 Basic Firearms .....1 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following courses:

AMSL 2420 Deaf Culture (Goals 6,7) **OR**
SPAN 2420 Many Faces of Mexico (Goals 6,8) .....3 cr
COMM 2420 Intercultural Communication (Goals 1,7)....3 cr
ENGL 1410 Composition I (Goal 1).....4 cr
SOCL 2405 Criminology (Goal 5).....3 cr
SOCL 2481 Race, Ethnicity and Oppression (Goals 5,7) .....3 cr

GRADUATION REQUIREMENT - 72 CREDITS

**Denotes Prerequisites*
+ These courses must be completed prior to SKILLS.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate knowledge of structure, process and relationships between law enforcement, the courts and correctional systems;
- Apply tactical skills, weapon safety, defense and arrest tactics, vehicle operation, crisis management and force options;
- Process crime scenes from preliminary stage through disposition;
- Function in a multicultural society as a mature, adaptable citizen, while meeting the needs and challenges of clients and communities;
- Interpret and apply theory, law, policy and practice as it relates to juvenile delinquency and deviant behavior;
- Demonstrate an understanding of the roles of the legislative, judicial and executive branches and how they relate to criminal law;
- Apply knowledge of criminal law, constitutional law and Minnesota traffic code;
- Demonstrate strong and effective written and oral communication skills; and
- Understand the importance of ethics and ethical behavior in law enforcement.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Admissions Requirements

- Students must complete and pass a background check and Minnesota Multiphasic Personality Inventory (MMPI) with a psychologist approved by the Program Coordinator prior to being officially admitted into the program. The background check and MMPI will be completed during the first week of classes.
- Students must have completed, or be concurrently enrolled in, an Associate in Arts, Bachelors, or Criminal Justice AAS Degree from a regionally accredited institution for admission into this program.

Please see the Criminal Justice Coordinator for further information.

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Career Opportunities

A criminal justice degree is part of the Professional Peace Officer Education Program requirement for Minnesota Peace Officer licensing standards. All course work is certified by the Minnesota Board of Peace Officer Standards and Training and meets the Board's learning objectives. The degree applies for those interested in other areas of the justice system.

Transfer Opportunities

Central Lakes College has an Articulation Agreement with St. Cloud State University for transfer of Criminal Justice courses. Other colleges and universities conduct a student-by-student evaluation regarding transfer of courses and degree.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. Students must achieve a grade of "C" or higher in all courses required in the program;
2. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
3. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
4. Residency Requirement: students must complete 25% of their credits at Central Lakes College;
5. Courses required for Minnesota P.O.S.T. licensing must be completed within three (3) years of starting the certificate;
6. Students must have a valid Emergency Medical Responder certification (or higher) at the time of the Post Board Exam.

Central Lakes College, Brainerd Campus 2020-2021

Natural Resource Law Enforcement, A.A.S.

Associate of Applied Science Degree (A261)

Technical Requirements 55
MN Transfer Curriculum 17
Total Credits 72

Program Description

Get a hands-on learning experience outside of the classroom walls with weekly fieldwork in the woods. This two-year program has produced many successful conservation officers who work throughout the Midwest and inside the federal government. A fleet of new state-of-the-art squad cars gives students a driver's seat view into law enforcement. Because of a close partnership between area law enforcement and the college, students have a wide selection of choices for internships. With this Natural Resource Law Enforcement A.A.S Degree, you can be a conservation officer or hold nearly any other law enforcement position.

Program Course Requirements

CRJU 1101	Criminal Justice	3 cr
CRJU 1104	Juvenile Justice	3 cr
CRJU 2101**	Criminal Law	3 cr
CRJU 2102*	Criminal Procedures	4 cr
CRJU 2108	Criminal Investigations	3 cr
CRJU 2140	Law Enforcement Behavioral Science	3 cr
NATR 1106	Intro to Nat Resources Law Enforcement	2 cr
NATR 1125	Ichthyology	3 cr
NATR 1130	Mammalogy	3 cr
NATR 1135	Ornithology	3 cr
NATR 1360	Animal Behavior	3 cr
NATR 2110	Herpetology	2 cr

Students must select one of the following pathways:

Professional Peach Officer License Pathway

CRJU 1112	Police and the Community	3 cr
CRJU 2106**	Fitness for Law Enforcement	2 cr
CRJU 2114**	Traffic Law	3 cr
CRJU 2124	General Evidence Identification Prep	4 cr
CRJU 2160*	Use of Force	2 cr
CRJU 2162*	Firearms	3 cr
CRJU 2164*	Patrol Practicals	5 cr
CRJU 2166*	Tactical Communications/Relations	2 cr

Non-Licensure Pathway

NATR 1112	Land Measurement	3
NATR 1120	Dendrology	3
NATR 1140	Limnology	3
NATR 1200	Introduction to Natural Resources	3 cr
NATR 1280	Introduction to GPS & GIS (Arc View)	2 cr
NATR 2130*	Wildlife Management	3 cr
NATR 2140*	Fisheries Management	3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following courses:

AMSL 2420	Deaf Culture (Goals 6,7) **OR**	
SPAN 2420	Many Faces of Mexico (Goals 6,8)	3 cr
BIOL 2415	General Ecology (Goals 3,10)	4 cr
ENGL 1410	Composition I (Goal 1)	4 cr
SOCL 2405	Criminology (Goal 5)	3 cr
SOCL 2481	Race, Ethnicity, Oppression (Goals 5,7)	3 cr
ENGL 1410	Composition I (Goal 1)	4 cr
SOCL 2405	Criminology (Goal 5)	3 cr
SOCL 2481	Race, Ethnicity and Oppression (Goals 5,7)	3 cr

GRADUATION REQUIREMENT - 72 CREDITS

**Denotes Prerequisites*

*** These courses must be completed prior to SKILLS.*

****Total program credits for students pursuing the Professional Peace Officer Pathway is 76 credits.*

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate field identification of regionally important mammals, birds and fish and their communities;
- Use a broad range of technological tools to research, document, map, measure, record and analyze data relevant to natural resources;
- Navigate and safely function in an outdoor workplace;
- Demonstrate knowledge of structure, process and relationships between law enforcement, the courts and correctional systems;
- Apply tactical skills, weapon safety, defense and arrest tactics, vehicle operation, crisis management and force options;
- Process crime scenes from preliminary stage through disposition;
- Function in a multicultural society as a mature, adaptable citizen, while meeting the needs and challenges of clients and communities;

- Interpret and apply theory, law, policy and practice as it relates to juvenile delinquency and deviant behavior;
- Demonstrate an understanding of the roles of the legislative, judicial and executive branches and how they relate to criminal law;
- Apply knowledge of criminal law, constitutional law and Minnesota traffic code;
- Demonstrate strong and effective written and oral communication skills; and
- Understand the importance of ethics and ethical behavior in law enforcement.

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Program Admissions Requirements

- Students must complete and pass a background check prior to being officially admitted into the program. This background check must be completed prior to the first day of classes.
- Students must also complete the Minnesota Multiphasic Personality Inventory (MMPI) with a psychologist approved by the Program Coordinator prior to admission into the program.
- Students must have completed, or be concurrently enrolled in, an Associate in Arts, Bachelors, or Criminal Justice AAS Degree from an accredited institution for admission into this program.
- Student must be able to complete the skills portion of the program to become licensed. This involves several real-life crime scene situations, firearms and physical proficiency, and law enforcement procedural practices.

Please see the Criminal Justice Coordinator for further information.

Career Opportunities

Students in the Natural Resources Law Enforcement Program learn skills that lead to becoming a conservation officer. Conservation officers work with fish and wildlife agencies, state parks, trails, forests, waters and wetlands, as well as work in educational activities within and throughout Minnesota. Conservation officers often work from 4x4 patrol vehicles, snowmobiles, ATV, and various watercrafts. The selection process for being a conservation officer in Minnesota includes a written exam, division interview, background investigation, functional capacity exam, psychological assessment and a medical evaluation. In addition, conservation officers must be a United States Citizen, possess a valid Minnesota driver's license, have no felony convictions, have the ability to swim and possess a license or be eligible for licensing as a Minnesota peace officer at the time of hire.

Transfer Opportunities

Central Lakes College has an Articulation Agreement with Bemidji State University for transfer of Criminal Justice courses. Other colleges and universities conduct a student-by-student evaluation regarding transfer of courses and degree. Please see an advisor for further information.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College;
4. Courses required for Minnesota P.O.S.T. licensing must be completed within three (3) years of starting the certificate;
5. Students must have a valid Emergency Medical Responder certification (or higher) at the time of the Post Board Exam.

Central Lakes College, Brainerd Campus 2020-2021

Criminal Justice

Certificate (C105)

Technical Requirements 27
Total Credits 27

Program Description

This certificate program is available to students who have completed degree requirements (either two-year, four-year, or graduate) from a regionally accredited college or university and are seeking a professional peace officer's license. The Criminal Justice Certificate is an accelerated degree that you can complete in one year. You'll be set on a law enforcement track that will lead you to success on the POST exam. All licensing courses can be completed in less than one academic year, which allows students to enter skills and then take the state licensing exam.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate knowledge of structure, process and relationships between law enforcement, the courts and correctional systems;
- Process crime scenes from preliminary stage through disposition;
- Function in a multicultural society as a mature, adaptable citizen, while meeting the needs and challenges of clients and communities;
- Interpret and apply theory, law, policy and practice as it relates to juvenile delinquency and deviant behavior
- Demonstrate an understanding of the roles of the legislative, judicial and executive branches and how they relate to criminal law;
- Apply knowledge of criminal law, constitutional law and Minnesota traffic code;
- Demonstrate strong and effective written and oral communication skills;
- Understand the importance of ethics and ethical behavior in law enforcement.

Program Admissions Requirements

- Students must complete and pass a background check and Minnesota Multiphasic Personality Inventory (MMPI) with a psychologist approved by the Program Coordinator prior to being officially admitted into the program. The background check and MMPI will be completed during the first week of classes.
- Students must have completed a degree from a regionally accredited institution prior to admission into this program.

Please see the Criminal Justice Coordinator for further information.

Program Course Requirements

CRJU 1101+	Criminal Justice	3 cr
CRJU 1104	Juvenile Justice	3 cr
CRJU 1112	Police and the Community	3 cr
CRJU 2101*+	Criminal Law	3 cr
CRJU 2102*	Criminal Procedures	4 cr
CRJU 2106+	Fitness for Law Enforcement	2 cr
CRJU 2108	Criminal Investigations	3 cr
CRJU 2114**	Traffic Law	3 cr
CRJU 2140	Law Enforcement and Behavioral Science	3 cr

GRADUATION REQUIREMENT - 27 CREDITS

**Denotes Prerequisites*

+ These courses must be completed prior to SKILLS.

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Career Opportunities

A criminal justice degree is part of the Professional Peace Officer Education Program requirement for Minnesota Peace Officer licensing standards. All course work is certified by the Minnesota Board of Peace Officer Standards and Training and meets the Board's learning objectives. Career titles may include: Police Officer, Deputy Sheriff, Corrections Officer, Parole Officer, and Probation Officer.

Transfer Opportunities

Central Lakes College has an Articulation Agreement with St. Cloud State University for transfer of Criminal Justice courses. Other colleges and universities conduct a student-by-student evaluation regarding transfer of courses and degree.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. Students must achieve a grade of "C" or higher in all courses required in the program;
2. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
3. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;Residency Requirement: students must complete 25% of their credits at Central Lakes College;
4. Courses required for Minnesota P.O.S.T. licensing must be completed within three (3) years of starting the certificate;
5. Students must have a valid Emergency Medical Responder certification (or higher) at the time of the Post Board Exam.

Central Lakes College, Brainerd Campus 2020-2021

Law Enforcement Skills

Certificate (C106)

Technical Requirements 16
Total Credits 16

Program Description

This unique program allows students to get an insider's look into the career of law enforcement. CLC students get in the driver's seat of new, state-of-the-art squad cars that come with the same software that officers use on the streets today. In this eight-week program, you'll be trained in firearms, defense tactics, using a Taser, chemical aerosol, radar and using LIDAR. After earning your Law Enforcement Skills Certificate, along with a Criminal Justice A.A.S. Degree, Criminal Justice Certificate or Natural Resources Law enforcement, you'll be ready to take the peace officer licensing exam.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate physical restraints necessary during an arrest procedure;
- Operate an emergency vehicle safely when responding to emergency situations;
- Handle a variety of calls and respond in accordance with criminal procedure;
- Understand use of force and its legalities;
- Recognize life threatening situations and respond accordingly.

Career Opportunities

Law Enforcement professionals respond to emergency and non-emergency calls for service, perform traffic enforcement to include traffic crash response and investigation, and investigate crimes and enforce state and federal statutes. Upon successful completion of this certificate program students will be eligible to take the MN Peace Officers Standards and Training Exam (P.O.S.T.). Upon successful completion of the P.O.S.T. Exam, students will be qualified to apply to Minnesota Law Enforcement Agencies within the State of Minnesota.

Program Admissions Requirements

- Students must pass a background check prior to being officially admitted into the program. This background check will be completed during the admissions process.
- Students must also complete the Minnesota Multiphasic Personality Inventory (MMPI) with a psychologist approved by the Program Coordinator during the admissions process.
- Students must possess a valid driver's license.
- Students must have completed, or be concurrently enrolled in, an Associate in Arts, Bachelors, or Criminal Justice AAS Degree from an accredited institution for admission into this program.
- Students must successfully complete CRJU 2101 Criminal Law, CRJU 2114 Traffic Law, and CRJU 2106 Fitness for Law Enforcement prior to admission to the program.
- Must have PPOE Coordinator approval and pass a physical assessment prior to being accepted into this program.

Please see the Criminal Justice Coordinator for further information.

Program Course Requirements

CRJU 2160	Use of Force	2 cr
CRJU 2162	Firearms	3 cr
CRJU 2164	Patrol Practicals	5 cr
CRJU 2166	Tactical Communications/Relations	2 cr
CRJU 2124	General Evidence Identification Preparation	4 cr

GRADUATION REQUIREMENT - 16 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College;
4. Courses required for Minnesota P.O.S.T. licensing must be completed within three (3) years of starting the certificate;
5. Students successfully pass all courses of the Skills certificate to be eligible to sit for the Post Exam.
6. Students must have a valid Emergency Medical Responder certification (or higher) at the time of the Post Board Exam.

Central Lakes College, Brainerd Campus 2020-2021

Culinary Arts

Certificate (C250)

Technical Requirements 30
Total Credits 30

Program Description

The Culinary Arts program prepares individuals for exciting careers in many culinary environments. Students learn all aspects needed to be successful in the industry, from food safety and sanitation to cooking techniques, flavors, and presentation. Students completing the program will earn the ServSafe Food Manager certificate.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify safety and sanitation methods and pass the Serv-Safe Certification;
- Identify and label culinary equipment;
- Analyze menus to determine ordering needs, food costs, and menu pricing;
- Determine and successfully use appropriate food preparation techniques for a given menu;
- Apply mathematical concepts to recipe conversion, inventory, ordering, costing, and pricing;
- Demonstrate effective customer service, oral and written communication skills with the kitchen team; and
- Apply culinary knowledge in a real-life situation and make knowledgeable decisions while on internship.

Career Opportunities

The Culinary Arts program prepares individuals for exciting careers in many culinary environments. The Culinary Arts certificate prepares individuals for careers in the restaurant, resort, hotel, casino, and institutional food service industries. Graduates of this program are prepared to work as chefs, line cooks, prep cooks, restaurant cooks, institutional/cafeteria cooks, station chefs, caterers, production developers, and various restaurant and hospitality management positions.

Program Course Requirements

CULA 1101	Culinary Techniques and Terminology	1 cr
CULA 1104	Applied Food Safety and Sanitation	1 cr
CULA 1107	Culinary Math and Spreadsheet Analysis	2 cr
CULA 1110	Food Production Lab I	3 cr
CULA 1113	Food Production Lab II	3 cr
CULA 1116	Food Production Lab III	3 cr
CULA 1119	Garde and International Flavors	2 cr
CULA 1122	Food Identification and Purchasing	1 cr
CULA 1125	Introduction to Baking Pastry Techniques	2 cr
CULA 1128	Internship I	4 cr
CULA 1131	Internship II	4 cr
CULA 1134	Internship III	4 cr

GRADUATION REQUIREMENT - 30 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Dental Assisting, A.A.S.

Associate of Applied Science Degree (A290)

Technical Requirements 44
MN Transfer Curriculum 16
Total Credits 60

Program Description

The Dental Assisting Program is designed to educate students on ways to control and prevent dental disease, as well as teach patients preventive dental care. Training is provided in chairside skills and MN State expanded functions. Fall and spring semesters are on-campus, and the nine-week summer session provides internships in dental facilities and private dental practices. This education prepares students to take national and state written examinations required for certification and registration as dental assistants. A certified registered dental assistant becomes a member of the dental team.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Perform chair side procedures in a clinical setting;
- Apply infection control, biohazards and treatment area practices;
- Perform dental office procedures;
- Perform radiographic and radiation safety procedures;
- Communicate professionally with patients, peers, and members of the dental health team; and
- Model professionalism through continuing education and membership in the American Dental Assistants Association.

Career Opportunities

Given the increasing demands for dental care, dental practices are designed for a dental team approved for the delivery of dental care. An exciting and challenging career awaits you as a professional dental assistant. This program will prepare students for a wide range of dental assisting careers, including chairside dental assistant in general or specialty practices, expanded-functions dental assistant, administrative business assistant, dental sales personnel, sterilization assistant, and dental insurance personnel. A career in dental assisting offers variety, job satisfaction, opportunity for service, and financial reward.

Program Course Requirements

DENT 1106	Dental Orientation and Anatomy	2 cr
DENT 1108**	General Anatomy	2 cr
DENT 1110	Managing Medical Emergencies	1 cr
DENT 1114	Pathology, Pharmacology, and Law	3 cr
DENT 1116*	Dental Clinic I	7 cr
DENT 1118	Dental Radiology I	3 cr
DENT 1120	Preventive Dentistry	2 cr
DENT 1123*	Dental Clinic II	9 cr
DENT 1124	Biomaterials	2 cr
DENT 1129*	Dental Radiology II	2 cr
DENT 1132*	Dental Specialties	2 cr
DENT 1133*	Principles of Practice Management and Communication	2 cr
DENT 1150*	Dental Internship (336 Hours)	7 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following course:

ENGL 1410	Composition I (Goal 1) **OR**	
ENGL 1421	Honors Composition I (Goal 1)	4 cr

Select 12 additional credits from Goals 2-10. For students planning to pursue Dental Hygiene, we suggest you choose courses that will meet prerequisite requirements for Dental Hygiene. See an advisor for assistance choosing courses for your targeted program/college. Typical Dental Hygiene course prerequisites may include BIOL 2457 Microbiology, BIOL 2467 Anatomy and Physiology I, BIOL 2468 Anatomy and Physiology II, COMM 1420 Interpersonal Communication, PSYC 2421 General Psychology, or SOCL 1401 Intro to Sociology.

Minnesota Transfer Curriculum courses ..... 12 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

***BIOL 1404 Human Biology (3 credits), or BIOL 2467 Anatomy and Physiology I and BIOL 2468 Anatomy and Physiology II (4 credits each) may be substituted for DENT 1108 General Anatomy.*

Program Accreditation

The CLC Dental Assisting program has been accredited by the Commission on Dental Accreditation (CODA) since 1967. The most recent reauthorization visit was conducted in Fall of 2019.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Fall Semester (19 credits)

DENT 1106	Dental Orientation and Anatomy	2 cr
DENT 1108**	General Anatomy	2 cr
DENT 1110	Managing Medical Emergencies	1 cr
DENT 1116*	Dental Clinic I	7 cr
DENT 1118	Dental Radiology I	3 cr
DENT 1120	Preventive Dentistry	2 cr
DENT 1124	Biomaterials	2 cr

Spring Semester (18 credits)

DENT 1114	Pathology, Pharmacology, and Law	3 cr
DENT 1123*	Dental Clinic II	9 cr
DENT 1129*	Dental Radiology II	2 cr
DENT 1132*	Dental Specialties	2 cr
DENT 1133*	Principles of Practice Management and Communication	2 cr

Summer Session (7 credits)

DENT 1150*	Dental Internship (336 Hours)	7 cr

Fall Semester (16 credits)

ENGL 1410	Composition I (Goal 1) **OR**	
ENGL 1421	Honors Composition I (Goal 1)	4 cr
Minnesota Transfer Curriculum courses		12 cr

Program Admissions Requirements

- Reading placement test is required. Admission date is fall semester, and progression through the program is sequential. Per the Commission on Dental Accreditation, students must possess a High School Diploma or GED prior to the fall semester start of the Dental Assisting Program.
- The curriculum in the dental assisting program may expose students to hazardous materials, radiation and/or infectious diseases. Students will be provided with information through education and program policies to protect themselves and their patients from harm. Students will be expected to utilize appropriate safety precautions in the classroom, laboratory and clinic. Program policies are available upon request.
- Minnesota Board of Dentistry will only accept American Heart Association Health Care Provider CPR or American Red Cross Professionals Rescuer CPR. The CPR requirement must be completed by October 1st. Students that have the required CPR must be current through August of the graduating year.
- All applications to the Minnesota Board of Dentistry for initial license will require a criminal background check.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.
4. 8 hours of dental clinical observation must be completed by October 1st.
5. Students who apply for the Dental Assisting Program who meet requirements for Admission will be accepted into the Dental Assisting Diploma for their first year with the option of pursuing their Associates in Applied Science (AAS) their second year.

Central Lakes College, Brainerd Campus 2020-2021

Dental Assisting

Diploma (D290)

Technical Requirements 44
Total Credits 44

Program Description

The Dental Assisting Diploma program is designed to educate students on ways to control and prevent dental disease, as well as teach patients preventive dental care. Training is provided in chairside skills and MN State expanded functions. Fall and spring semesters are on-campus, and the nine-week summer session provides internships in dental facilities and private dental practices. This education prepares students to take the DANB (Dental Assisting National Board Exam) and the DASLE (Dental Assistant State Licensure Exam) required for certification and licensure as a dental assistant. A certified and licensed dental assistant becomes a member of the dental team.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Perform chair side procedures in a clinical setting;
- Apply infection control, biohazards and treatment area practices;
- Perform dental office procedures;
- Perform radiographic and radiation safety procedures;
- Communicate professionally with patients, peers, and members of the dental health team; and
- Model professionalism through continuing education and membership in the American Dental Assistants Association.

Career Opportunities

Given the increasing demands for dental care, dental practices are designed for a dental team approved for the delivery of dental care. An exciting and challenging career awaits you as a professional dental assistant. This program will prepare students for a wide range of dental assisting careers, including chairside dental assistant in general or specialty practices, expanded-functions dental assistant, administrative business assistant, sterilization assistant, and dental insurance personnel. A career in dental assisting offers variety, job satisfaction, opportunity for service, and financial reward.

Program Course Requirements

DENT 1106	Dental Orientation and Anatomy	2 cr
DENT 1108**	General Anatomy	2 cr
DENT 1110	Managing Medical Emergencies	1 cr
DENT 1114	Pathology, Pharmacology, and Law	3 cr
DENT 1116*	Dental Clinic I	7 cr
DENT 1118	Dental Radiology I	3 cr
DENT 1120	Preventive Dentistry	2 cr
DENT 1123*	Dental Clinic II	9 cr
DENT 1124	Biomaterials	2 cr
DENT 1129*	Dental Radiology II	2 cr
DENT 1132*	Dental Specialties	2 cr
DENT 1133*	Principles of Practice Management and Communication	2 cr
DENT 1150*	Dental Internship (336 Hours)	7 cr

GRADUATION REQUIREMENT - 44 CREDITS

**Denotes Prerequisites*

***BIOL 1404 Human Biology (3 credits), or BIOL 2467 Anatomy and Physiology I and BIOL 2468 Anatomy and Physiology II (4 credits each) may be substituted for DENT 1108 General Anatomy.*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Accreditation

The CLC Dental Assisting program has been accredited by the Commission on Dental Accreditation (CODA) since 1967. The most recent reauthorization visit was conducted in Fall of 2019.

Semester Course Requirements

Fall Semester (19 credits)

DENT 1106	Dental Orientation and Anatomy	2 cr
DENT 1108**	General Anatomy	2 cr
DENT 1110	Managing Medical Emergencies	1 cr
DENT 1116*	Dental Clinic I	7 cr
DENT 1118	Dental Radiology I	3 cr
DENT 1120	Preventive Dentistry	2 cr
DENT 1124	Biomaterials	2 cr

Spring Semester (18 credits)

DENT 1114	Pathology, Pharmacology, and Law	3 cr
DENT 1123*	Dental Clinic II	9 cr
DENT 1129*	Dental Radiology II	2 cr
DENT 1132*	Dental Specialties	2 cr
DENT 1133*	Principles of Practice Management And Communication	2 cr

Summer Session (7 credits)

DENT 1150*	Dental Internship (336 Hours)	7 cr

Program Admissions Requirements

- Reading placement test is required. Admission date is fall semester, and progression through the program is sequential. Per the Commission on Dental Accreditation, students must possess a High School Diploma or GED prior to the fall semester start of the Dental Assisting Program.
- The curriculum in the dental assisting program may expose students to hazardous materials, radiation and/or infectious diseases. Students will be provided with information through education and program policies to protect themselves and their patients from harm. Students will be expected to utilize appropriate safety precautions in the classroom, laboratory and clinic. Program policies are available upon request.
- Minnesota Board of Dentistry will only accept American Heart Association Health Care Provider CPR or American Red Cross Professionals Rescuer CPR. The CPR requirement must be completed by October 1st. Students that have the required CPR must be current through August of the graduating year.
- All applications to the Minnesota Board of Dentistry for initial license will require a criminal background check.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.
4. 8 hours of dental clinical observation must be completed by October 1st.
5. Students who apply for the Dental Assisting Program who meet requirements for Admission will be accepted into the Dental Assisting Diploma for their first year with the option of pursuing their Associates in Applied Science (AAS) their second year.

Central Lakes College, Staples Campus 2020-2021

Diesel Equipment Technician, A.A.S.

Associate of Applied Science Degree (A340)

Technical Requirements 52
MN Transfer Curriculum 15
Total Credits 67

Program Description

The Diesel Equipment Technician Diploma is an eleven-month program that includes an accelerated six-week summer session. The Diesel Technician Associate of Applied Science (A.A.S.) Degree consists of all coursework from the diploma program, plus commercial driver's license training and internship experience, and an additional 15 credits of General Education courses from at least three of the 10 goal areas of the Minnesota Transfer Curriculum (MnTC). This program concentrates on the hydraulic/hydrostatic, power train, electrical/electronics, and engine systems of off-road construction equipment such as crawlers, excavators, backhoes, front end loaders, motor graders, and skid steer loaders.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply safe shop and equipment practices;
- Demonstrate proper use and care of shop and personal tools;
- Inspect, diagnose, and conduct failure analysis and perform preventative maintenance inspections in electrical, hydraulic, engines and power train systems;
- Use service resources and software technologies;
- Apply fundamental skills and concepts to problem solving situations;
- Communicate effectively in diesel mechanics industry situations;
- Demonstrate a high level of craftsmanship and professionalism.

Program Admissions Requirements

Students enrolled in this program must supply their own basic tool sets. A guideline of what tools are needed is available from admissions. A pre-enrollment drug test is required of all students. Enrolled students will remain in a random drug testing consortium.

Career Opportunities

The Diesel Equipment Technician program allows students to prepare for careers in maintenance, repair, and diagnostics of diesel equipment. Graduates students find employment at original equipment manufacturing dealerships, construction contractors, independent repair facilities, federal, state and local government agencies, and the related forestry, mining, and petroleum industries. Career titles may include: Diesel and Heavy Equipment Technician, Diesel Maintenance Technician, Heavy Equipment Technician, Heavy Truck Technician, Diesel Technician, Diesel Mechanic.

Program Course Requirements

DHET 1103 Introduction to Construction Equipment **OR**
HEOM 1200 Introduction to Operations .....1 cr
DHET 1107 Electrical Theory .....3 cr
DHET 1108 Electrical Lab .....5 cr
DHET 1117 Engine Theory .....3 cr
DHET 1118 Engine Lab .....5 cr
DHET 1123 Customer Service/Service Management 1 .....1 cr
DHET 1125 Hydraulic Theory .....3 cr
DHET 1126 Hydraulic Lab .....5 cr
DHET 1128 Power Trains Theory .....2 cr
DHET 1129 Power Trains Lab .....5 cr
DHET 1132* On Highway Vehicle Systems Theory .....3 cr
DHET 1133* On Highway Vehicle Systems Lab .....4 cr
DHET 1130 Diesel Internship .....2 cr
DHET 1135 Welding for Diesel Equipment .....1 cr
ENGL 1520 Language Fundamentals .....1 cr
ENGL 1521 Technical Writing Fundamentals .....1 cr
ENGL 1522 Writing Fundamentals for Diesel and Heavy Equipment Technicians .....1 cr
HEOM 1165 CDL .....3 cr
MATH 1500 Applied Math .....3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC).
Minnesota Transfer Curriculum courses .....15 cr

GRADUATION REQUIREMENT - 67 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (20 credits)

DHET 1103 Introduction to Construction Equipment **OR**
HEOM 1200 Introduction to Operations ..... 1 cr
MATH 1500 Applied Math ..... 3 cr
The following courses are offered in fall and spring semester:
DHET 1125 Hydraulic Theory ..... 3 cr
DHET 1126 Hydraulic Lab ..... 5 cr
DHET 1128 Power Trains Theory ..... 2 cr
DHET 1129 Power Trains Lab ..... 5 cr
DHET 1135 Welding for Diesel Equipment ..... 1 cr

Semester Two (20 credits)

DHET 1123 Customer Service/Service Management 1 ..... 1 cr
ENGL 1520 Language Fundamentals ..... 1 cr
ENGL 1521 Technical Writing Fundamentals ..... 1 cr
ENGL 1522 Writing Fundamentals for Diesel and Heavy Equipment Technicians ..... 1 cr
The following courses are offered in fall and spring semester:
DHET 1107 Electrical Theory ..... 3 cr
DHET 1108 Electrical Lab ..... 5 cr
DHET 1117 Engine Theory ..... 3 cr
DHET 1118 Engine Lab ..... 5 cr

Semester Three (Summer) (12 credits)

DHET 1130 Diesel Internship ..... 2 cr
DHET 1132* On Highway Vehicle Systems Theory ..... 3 cr
DHET 1133* On Highway Vehicle Systems Lab ..... 4 cr
HEOM 1165 CDL ..... 3 cr

Semester Four (Fall) (15 credits)

Minnesota Transfer Curriculum courses ..... 15 cr

Course Prerequisites

Some courses may require appropriate test score or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Accreditation

This program is accredited by Associated Equipment Distributors (AED) Foundation.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Diesel Equipment Technician

Diploma (D341)

Technical Requirements 47
Total Credits 47

Program Description

The Diesel Equipment Technician Diploma is an eleven-month program that includes an accelerated six-week summer session. This program concentrates on the hydraulic/hydrostatic, power train, electrical/electronics, and engine systems of off-road construction equipment such as crawlers, excavators, backhoes, front end loaders, motor graders, and skid steer loaders as well as on-highway vehicles. Two program options allow students to prepare for careers in maintenance, repair, and diagnostics of diesel equipment.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply safe shop and equipment practices;
- Demonstrate proper use and care of shop and personal tools;
- Inspect, diagnose, and conduct failure analysis and perform preventative maintenance inspections in electrical, hydraulic, engines and power train systems;
- Use service resources and software technologies;
- Apply fundamental skills and concepts to problem solving situations;
- Communicate effectively in written and speaking in diesel mechanics industry situations;
- Demonstrate a high level of craftsmanship and professionalism.

Program Admissions Requirements

Students enrolled in this program must supply their own basic tool sets. A guideline of what tools are needed is available from admissions. A pre-enrollment drug test is required of all students. Enrolled students will remain in a random drug testing consortium.

Career Opportunities

The Diesel Equipment Technician program allows students to prepare for careers in the maintenance, repair, and diagnostics of diesel equipment. Graduates find employment at original equipment manufacturing dealerships, construction contractors, independent repair facilities, federal, state and local government agencies, and the related forestry, mining, and petroleum industries. Career titles may include: Diesel and Heavy Equipment Technician, Diesel Maintenance Technician, Heavy Equipment Technician, Heavy Truck Technician, Diesel Technician, Diesel Mechanic.

Program Course Requirements

DHET 1103	Introduction to Construction Equipment **OR**	
HEOM 1200	Introduction to Operations	1 cr
DHET 1107	Electrical Theory	3 cr
DHET 1108	Electrical Lab	5 cr
DHET 1117	Engine Theory	3 cr
DHET 1118	Engine Lab	5 cr
DHET 1123	Customer Service/Service Management 1	1 cr
DHET 1125	Hydraulic Theory	3 cr
DHET 1126	Hydraulic Lab	5 cr
DHET 1128	Power Trains Theory	2 cr
DHET 1129	Power Trains Lab	5 cr
DHET 1132*	On Highway Vehicle Systems Theory	3 cr
DHET 1133*	On Highway Vehicle Systems Lab	4 cr
DHET 1135	Welding for Diesel Equipment	1 cr
ENGL 1520	Language Fundamentals	1 cr
ENGL 1521	Technical Writing Fundamentals	1 cr
ENGL 1522	Writing Fundamentals for Diesel and Heavy Equipment Technicians	1 cr
MATH 1500	Applied Math	3 cr

GRADUATION REQUIREMENT - 47 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (20 credits)

DHET 1103 Introduction to Construction Equipment **OR**
HEOM 1200 Introduction to Operations ..... 1 cr

The following courses are offered in fall and spring semester:

DHET 1125 Hydraulic Theory ..... 3 cr
DHET 1126 Hydraulic Lab ..... 5 cr
DHET 1128 Power Trains Theory ..... 2 cr
DHET 1129 Power Trains Lab ..... 5 cr
DHET 1135 Welding for Diesel Equipment ..... 1 cr

Semester Two (20 credits)

DHET 1123 Customer Service/
Service Management 1 ..... 1 cr
ENGL 1520 Language Fundamentals ..... 1 cr
ENGL 1521 Technical Writing Fundamentals ..... 1 cr
ENGL 1522 Writing Fundamentals for Diesel
and Heavy Equipment Technicians ..... 1 cr

The following courses are offered in fall and spring semester:

DHET 1107 Electrical Theory ..... 3 cr
DHET 1108 Electrical Lab ..... 5 cr
DHET 1117 Engine Theory ..... 3 cr
DHET 1118 Engine Lab ..... 5 cr

Semester Three (Summer) (7 credits)

DHET 1132* On Highway Vehicle Systems Theory ..... 3 cr
DHET 1133* On Highway Vehicle Systems Lab ..... 4 cr

Program Accreditation

This program is accredited by Associated Equipment Distributors (AED) Foundation.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Specialty Crops Management

Diploma (D141)

Technical Requirements 33
Electives 11
Total Credits 44

Program Description

Education for the Specialty Crops Management program is primarily delivered at the business of the student. This individualized instruction allows the instructor to design an educational program that specifically addresses the student's needs and can be delivered at the most appropriate time. Education is also delivered through annual meetings, where students are able to meet each other and through monthly newsletters, phone calls, and personal email.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify the most common diseases that attack their crops;
- Identify and control the most common insects that attack their crops;
- Understand the basic principles of Integrated Pest Management as it relates to their crops;
- Know the soil types on their property and be able to fertilize their crops according to soil type;
- Know how to vary fertilizer rates according to crop and crop stage;
- Identify the most profitable outlet to sell their produce;
- Know the applicable laws for hiring and firing employees;
- Know how to safely apply crop chemicals;
- Know the basic principles of plant physiology as it pertains to growing crops;
- Be able to give examples of good forms of advertising;
- Know the basic types of irrigation and sources of irrigation water on their property;
- Identify and choose appropriate types of crop insurance and liability insurance for their business.

Program Admissions Requirements

The program is open to any fruit or vegetable grower in the state of Minnesota who wants to participate in the program.

Career Opportunities

Students enrolled in the Specialty Crops Management Diploma program include people who want to make their living growing and selling fruits and vegetables, as well as those who want to supplement their income. Roughly one third of the students in the program are supplementing their retirement income. Demand for locally grown fruits and vegetables is increasing rapidly. There is a good future for small acreage landowners who want to earn money by growing fruits and vegetables.

Program Course Requirements

SCMT 1110 System Goal Setting .....1 cr
SCMT 1111 Introduction to Specialty Crops .....2 cr
SCMT 1112 Introduction to Financial Planning Analysis.....2 cr
SCMT 1114 Marketing of Specialty Crops .....2 cr
SCMT 1116 Introduction to Soils and Plant Growth.....2 cr
SCMT 1117 Pest Identification and Control .....2 cr
SCMT 1119 Pesticide Safety and Handling .....2 cr
SCMT 1121 Fertilizer Selection, Handling Application ..2 cr
SCMT 1124 Irrigation Planning and Management .....2 cr
SCMT 1135 Labor, Risk and Tax Management .....2 cr
SCMT 2125 Advertising and Customer Relations .....2 cr
SCMT 2127 Advanced Financial Planning and Analysis .....2 cr
SCMT 2131 Advanced Soils and Plant Nutrition .....2 cr
SCMT 2132 Advanced Marketing Strategies .....2 cr
SCMT 2136 Advanced Pest Identification and Control .....2 cr
SCMT 2000 Special Topics – Soil Management .....1 cr
SCMT 2200 Current Issues in Specialty Crop Marketing .....1 cr
SCMT 2334 Value Added Opportunities for Specialty Crops .....2 cr

Students must select an additional 11 credits from SCMT courses.

Elective Courses.....11 cr

GRADUATION REQUIREMENT - 44 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scored or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Advanced Farm Business Management

Certificate (C145)

Technical Requirements 30
Total Credits 30

Program Description

The primary emphasis of the Farm Business Management Program is to assist farm families in meeting their business and personal goals through quality farm records and sound business decisions. This program is primarily taught at the student's place of business, but classroom and group instruction are also very important. Individualized instruction is used to the fullest extent. Students are enrolled in the program on a continuous, part-time basis. Normal credit load is 10 credits per year, for the equivalent of 1/3 of a full-time college student. The instructor visits the farm on a regular basis and understands the strengths and weaknesses of each student's business.

Developing a set of sound farm records is the basis for the program. Primarily, computerized accounting is used to handle the complex records, which must be kept in an efficient farm business. At the close of the calendar year, these records are summarized by the instructor and a computerized business analysis is prepared for each student to show how well his/her business did financially during the year. Each student also receives an area Farm Business Analysis Summary, which allows them to compare their information with averages of other Farm Business Management students (farmers) in their local area and around the state.

The Farm Business Management Program offering consists of four certificate programs. The first three certificate programs are 30 credits in length. These three programs include Essentials of Farm Business Management, Applications in Farm Business Management, and Advanced Farm Business Management. The fourth certificate option is the Marketing Certificate, consisting of 25 credits.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Maintain accurate records regularly;
- Complete business analysis annually;
- Complete accurate balance sheets annually or as needed;
- Complete business planning annually and strategically;
- Continue in business after completing award area(s).

Program Admissions Requirements

The Farm Business Management Program is primarily offered as individualized instruction at the business. Classroom instruction is also offered on a limited basis. Normal credit load is 10 credits per year, for the equivalent of 1/3 of a full-time college student.

Program Course Requirements

FBMA 2930* Fundamentals of Financial Management Relates Risk Management .....3 cr
FBMA 2931* Applied Financial Management Relates Risk Management.....3 cr
FBMA 2932* Fundamentals of Financial Management/Strategic Plan Emphasis .....3 cr
FBMA 2933* Applied Financial Management/ Strategic Plan Emphasis .....3 cr
FBMA 2934* Fundamentals of Financial Management/ Business Plan Emphasis.....3 cr
FBMA 2935* Applied Financial Management/ Business Plan Emphasis.....3 cr

Students must choose 12 additional credits from the Farm Business Management Master Course Listing. .....12 cr

GRADUATION REQUIREMENT - 30 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Agricultural Commodities Marketing

Certificate (C141)

Technical Requirements 25
Total Credits 25

Program Description

The primary emphasis of the Farm Business Management Program is to assist farm families in meeting their business and personal goals through quality farm records and sound business decisions. This program is primarily taught at the student's place of business, but classroom and group instruction are also very important. Individualized instruction is used to the fullest extent. Students are enrolled in the program on a continuous, part-time basis. Normal credit load is 10 credits per year, for the equivalent of 1/3 of a full-time college student. The instructor visits the farm on a regular basis and understands the strengths and weaknesses of each student's business.

Developing a set of sound farm records is the basis for the program. Primarily, computerized accounting is used to handle the complex records, which must be kept in an efficient farm business. At the close of the calendar year, these records are summarized by the instructor and a computerized business analysis is prepared for each student to show how well his/her business did financially during the year. Each student also receives an area Farm Business Analysis Summary, which allows them to compare their information with averages of other Farm Business Management students (farmers) in their local area and around the state.

The Farm Business Management Program offering consists of four certificate programs. The first three certificate programs are 30 credits in length. These three programs include Essentials of Farm Business Management, Applications in Farm Business Management, and Advanced Farm Business Management. The fourth certificate option is the Marketing Certificate, consisting of 25 credits.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Maintain accurate records regularly.
- Complete business analysis annually.
- Complete accurate balance sheets annually or as needed.
- Complete business planning annually and strategically.
- Continue in business after completing award area(s).

Program Admissions Requirements

The Farm Business Management Program is primarily offered as individualized instruction at the business. Classroom instruction is also offered on a limited basis. Normal credit load is 10 credits per year, for the equivalent of one-third of a full-time college student.

Program Course Requirements

FBMT 1170 Introduction to Farm Commodities Marketing .....3 cr
FBMT 1173 Directed Study – Introduction to Farm Commodity Marketing .....2 cr
FBMT 1180 Applying Commodity Marketing Fundamentals.....3 cr
FBMT 1183 Directed Study – Applying Commodity Marketing Fundamentals .....2 cr
FBMT 1190 Evaluating Farm Commodity Marketing Tools .....3 cr
FBMT 1193 Directed Study - Evaluating Farm Commodity Marketing Tools.....2 cr
FBMT 2170 Monitoring Farm Commodity Marketing Plans.....3 cr
FBMT 2173 Directed Study - Monitoring Farm Commodity Marketing Plans .....2 cr
FBMT 2180 Strategies in Farm Commodity Marketing .....3 cr
FBMT 2183 Directed Study- Strategies in Farm Commodity Marketing .....2 cr

GRADUATION REQUIREMENT - 25 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scoresf or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Applications in Farm Business Management

Certificate (C142)

Technical Requirements 30
Total Credits 30

Program Description

The primary emphasis of the Farm Business Management Program is to assist farm families in meeting their business and personal goals through quality farm records and sound business decisions. This program is primarily taught at the student's place of business, but classroom and group instruction are also very important. Individualized instruction is used to the fullest extent. Students are enrolled in the program on a continuous, part-time basis. Normal credit load is 10 credits per year, for the equivalent of 1/3 of a full-time college student. The instructor visits the farm on a regular basis and understands the strengths and weaknesses of each student's business.

Developing a set of sound farm records is the basis for the program. Primarily, computerized accounting is used to handle the complex records, which must be kept in an efficient farm business. At the close of the calendar year, these records are summarized by the instructor and a computerized business analysis is prepared for each student to show how well his/her business did financially during the year. Each student also receives an area Farm Business Analysis Summary, which allows them to compare their information with averages of other Farm Business Management students (farmers) in their local area and around the state.

The Farm Business Management Program offering consists of four certificate programs. The first three certificate programs are 30 credits in length. These three programs include Essentials of Farm Business Management, Applications in Farm Business Management, and Advanced Farm Business Management. The fourth certificate option is the Marketing Certificate, consisting of 25 credits.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Maintain accurate records regularly.
- Complete business analysis annually.
- Complete accurate balance sheets annually or as needed.
- Complete business planning annually and strategically.
- Continue in business after completing award area(s).

Program Admissions Requirements

The Farm Business Management Program is primarily offered as individualized instruction at the business. Classroom instruction is also offered on a limited basis. Normal credit load is 10 credits per year, for the equivalent of 1/3 of a full-time college student.

Program Course Requirements

FBMT 2141 Interpreting and Evaluating Financial Data .....4 cr
FBMT 2142 Interpreting Trends in Business Planning....4 cr
FBMT 2151 Strategies in Farm System Data Management .....4 cr
FBMT 2152 Integrating System Information for Financial Planning.....4 cr
FBMT 2161 Examination of the Context of Farm System Management .....4 cr
FBMT 2162 Refining Farm System Management .....4 cr

Student must choose an additional 6 credits from the Farm Business Management Master Course Listing. Electives can be identified when the second numerical placeholder is a "2". (i.e. FBMT 1211). .....6 cr

GRADUATION REQUIREMENT - 30 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Current Issues in Farm Business Management

Certificate (C1444)

Technical Requirements 30
Total Credits 30

Program Description

The primary emphasis of the Farm usiness Management Program is to assist farm families in meeting their business and personal goals through quality farm records and sound business decisions. This program is primarily taught at the student s place of business, but classroom and group instruction are also very important. Individualized instruction is used to the fullest e tent. Students are enrolled in the program on a continuous, part-time basis. Normal credit load is 10 credits per year, for the equivalent of 1/3 of a full-time college student. The instructor visits the farm on a regular basis and understands the strengths and weaknesses of each student s business.

Developing a set of sound farm records is the basis for the program. Primarily, computerized accounting is used to handle the comple records, which must be kept in an efficient farm business. At the close of the calendar year, these records are summarized by the instructor and a computerized business analysis is prepared for each student to show how well his/her business did financially during the year. Each student also receives an area Farm usiness Analysis Summary, which allows them to compare their information with averages of other Farm usiness Management students (farmers) in their local area and around the state.

The Farm usiness Management Program offering consists of four certificate programs. The first three certificate programs are 30 credits in length. These three programs include Essentials of Farm usiness Management, Applications in Farm usiness Management, and Advanced Farm usiness Management. The fourth certificate option is the Marketing Certificate, consisting of 25 credits.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Maintain accurate records regularly.
- Complete business analysis annually.
- Complete accurate balance sheets annually or as needed.
- Complete business planning annually and strategically.
- Continue in business after completing award area(s).

Program Admissions Requirements

The Farm usiness Management Program is primarily offered as individualized instruction at the business. Classroom instruction is also offered on a limited basis. Normal credit load is 10 credits per year, for the equivalent of 1/3 of a full-time college student.

Program Course Requirements

F MA 2210 Current Issues in Farm usiness Management ..... 1-5 cr
F MA 2220 Directed Studies Current Issues in Farm usiness Management ..... 1-5 cr
F MA 2211 Current Issues in Farm usiness Management ..... 1-5 cr
F MA 2221 Directed Studies Current Issues in Farm usiness Management ..... 1-5 cr
F MA 2212 Current Issues in Farm usiness Management ..... 1-5 cr
F MA 2222 Directed Studies Current Issues in Farm usiness Management ..... 1-5 cr

Student must choose elective courses from the Farm usiness Management Master Course Listing to total 30 credits. Electives can be identified when the second numerical placeholder is a “2”. (i.e. F MA 2223)..... 0-12 cr

GRADUATION REQUIREMENT - 30 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement students must complete 25 of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Essentials of Farm Business Management

Certificate (C143)

Technical Requirements 30
Total Credits 30

Program Description

The primary emphasis of the Farm Business Management Program is to assist farm families in meeting their business and personal goals through quality farm records and sound business decisions. This program is primarily taught at the student's place of business, but classroom and group instruction are also very important. Individualized instruction is used to the fullest extent. Students are enrolled in the program on a continuous, part-time basis. Normal credit load is 10 credits per year, for the equivalent of one-third of a full-time college student. The instructor visits the farm on a regular basis and understands the strengths and weaknesses of each student's business.

Developing a set of sound farm records is the basis for the program. Primarily, computerized accounting is used to handle the complex records, which must be kept in an efficient farm business. At the close of the calendar year, these records are summarized by the instructor and a computerized business analysis is prepared for each student to show how well his/her business did financially during the year. Each student also receives an area Farm Business Analysis Summary, which allows them to compare their information with averages of other Farm Business Management students (farmers) in their local area and around the state.

The Farm Business Management Program consists of four certificate programs. The first three certificate programs are 30 credits in length. These three programs include Essentials of Farm Business Management, Applications in Farm Business Management, and Advanced Farm Business Management. The fourth certificate option is the Marketing Certificate, consisting of 25 credits.

Program Course Requirements

FBMT 1112 Foundations for Farm Business Management .....4 cr
FBMT 1121 Preparation for Farm Business Analysis .....4 cr
FBMT 1122 Implementing the System Management Plan .....4 cr
FBMT 1131 Management/Modifying Farm System Data.....4 cr
FBMT 1132 Interpreting and Using Farm System Data.....4 cr

Students must choose 10 additional credits of Farm Business Management courses. Electives can be identified when the second numerical placeholder is a "2"; i.e., FBMT 1211.
Additional FBM courses .....10 cr

GRADUATION REQUIREMENT - 30 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Graphic Design, A.A.S.

Associate of Applied Science Degree (A221)

Technical Requirements 45
MN Transfer Curriculum 15
Total Credits 60

Program Description

Graphic Designers are a key component in promoting people, corporations and products to consumers. We work in many areas from print/production design, website/social media design, motion graphics and animation design. Designers go through a process of conception, creation and communication of visual effects in all aspects of advertising. We offer instruction using the latest in today's technology and innovative techniques for this career field. We help connect students to challenges of exciting, creative, and rewarding career opportunities. We "Design It." In the Graphic Design Program, students will take visual ideas from initial concept through creative and technical development and, ultimately, to a final form that is ready for production. Various tools are used, from hand tools for sketches to the latest computerized aids. We focus on projects modeled with industry realities, relevant to high-impact, effective communication.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Select appropriate software tools to achieve effective design solutions;
- Communicate design concepts at various stages of development using the design process;
- Develop print and multimedia concepts using traditional, computer-based, and video design tools;
- Develop and present creative portfolios verbally and in writing to clients;
- Interact with clients, marketing personnel, copy writers, web designers, photographers, and printing companies; and
- Demonstrate a respect for diversity of ideas and concepts in a group environment.

Program Course Requirements

GDES 1105	Concepts of Design	3 cr
GDES 1120	Publication Design	3 cr
GDES 1122*	Graphic Design Production	3 cr
GDES 1124	Corporate ID	3 cr
GDES 1134	Typography	3 cr
GDES1140	Adobe Photoshop	3 cr
GDES 1142	Adobe Illustrator	3 cr
GDES 1144	Adobe InDesign	3 cr
GDES 2100*	Graphic Design I	3 cr
GDES 2102*	Graphic Design II	3 cr
GDES 2113*	Art Direction	3 cr
GDES 2120*	Packaging	3 cr
GDES 2124	Portfolio Production	3 cr
GDES 2130	Motion Graphics I	3 cr
GDES 2132	Designs in Social Media	3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students are encouraged to select courses from the following list:

ARTS 1401	Black and White Photography I (Goal 6)	3 cr
ARTS 1403	Color Photo I (Goal 6)	3 cr
ARTS 1425	Introduction to Graphic Design (Goal 6)	3 cr
ARTS 1458	Drawing (Goal 6)	3 cr
ARTS 1468	Painting (Goal 6)	3 cr
ARTS 2410	Introduction to Photo/Video Art (Goal 6)	3 cr
COMM 1420	Interpersonal Communication (Goal 1)	3 cr
COMM 1450	Introduction to Mass Communication (Goals 2,9)	3 cr
ENGL 1410	Composition I (Goal 1)	4 cr
ENGL 1422	Practical Writing (Goal 1)	3 cr
MATH 1441	Concepts in Mathematics (Goal 4)	3 cr
PHIL 1421	Critical Thinking (Goals 2 and 9)	3 cr
PHIL 2420	Ethics (Goals 6 and 9)	3 cr
SOCL 1401	Introduction to Sociology (Goals 2,5)	3 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (15 credits)

GDES 1105 Concepts of Design ..... 3 cr
GDES 1134 Typography ..... 3 cr
GDES 1140 Adobe Photoshop ..... 3 cr
GDES 1142 Adobe Illustrator ..... 3 cr
GDES 1144 Adobe InDesign ..... 3 cr

Semester Two (15 credits)

GDES 1120 Publication Design ..... 3 cr
GDES 1122* Graphic Design Production ..... 3 cr
GDES 1124 Corporate ID ..... 3 cr
Minnesota Transfer Curriculum ..... 6 cr

Semester Three (15 credits)

GDES 2100* Graphic Design I ..... 3 cr
GDES 2120* Packaging ..... 3 cr
GDES 2130 Motion Graphics I ..... 3 cr
GDES 2132 Design in Social Media ..... 3 cr
Minnesota Transfer Curriculum ..... 3 cr

Semester Four (15 credits)

GDES 2102* Graphic Design II ..... 3 cr
GDES 2113* Art Direction ..... 3 cr
GDES 2124 Portfolio Production ..... 3 cr
Minnesota Transfer Curriculum ..... 6 cr

Career Opportunities

A graphic designer is a creative problem solver who is trained to conceive, plan, and execute a design that communicates a direct message to an audience in an imaginative and visually arresting manner. Effective visual communication requires a graphic designer to communicate ideas and information in ways that will get the attention of and motivate a viewer. Ideas are generated through a design process in which graphic designers research, organize, and interpret the information; define the objectives; originate ideas; and create new visual forms. New and constantly evolving computer and communication technologies further challenge the role of the graphic designer in creating imaginative and clear messages for vastly different audiences. Meeting this challenge requires use of the best media tools for development and delivery of ideas and information: print, photography, packaging, logos, publications, the internet, film, television, and animation.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Transfer Opportunities

Students have the opportunity to transfer to Bemidji State University and finish a four-year Bachelor of Arts in Design Technology with an emphasis in Digital Design/Print, Digital Design/Electronic, or Exhibit Design.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.
4. Graphic Design students are required to purchase an Apple Macintosh laptop with the Adobe Creative Cloud software. See latest requirement through bookstore website.

Central Lakes College, Brainerd Campus 2020-2021

Graphic Design

Diploma (D230)

Technical Requirements 54
Total Credits 54

Program Description

Graphic Designers are a key component in promoting people, corporations and products to consumers. We work in many areas from print/production design, website/social media design, motion graphics and animation design. Designers go through a process of conception, creation and communication of visual effects in all aspects of advertising. We offer instruction using the latest in today's technology and innovative techniques for this career field. We help connect students to challenges of exciting, creative, and rewarding career opportunities. We "Design It." In the Graphic Design Program, students will take visual ideas from initial concept through creative and technical development and, ultimately, to a final form that is ready for production. Various tools are used, from hand tools for illustration to the latest computerized aids. We focus on projects modeled with industry realities, relevant to high-impact, effective communication.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Select appropriate software tools to achieve effective design solutions;
- Communicate design concepts at various stages of development using the design process;
- Develop print and multimedia concepts using traditional, computer-based, and video design tools;
- Develop and present creative portfolios verbally and in writing to clients;
- Interact with clients, marketing personnel, copy writers, web designers, photographers, and printing companies; and
- Demonstrate a respect for diversity of ideas and concepts in a group environment.

Career Opportunities

A graphic designer is a creative problem solver who is trained to conceive, plan, and execute a design that communicates a direct message to an audience in an imaginative and visually arresting manner. Effective visual communication requires a graphic designer to communicate ideas and information in ways that will get the attention of, and motivate, a viewer. Ideas are generated through a design process in which graphic designers research, organize, and interpret the information; define the objectives; originate ideas; and create new visual forms. New and constantly evolving computer and communication technologies further challenge the role of the graphic designer in creating imaginative and clear messages for vastly different audiences. Meeting this challenge requires use of the best media tools for development and delivery of ideas and information: print, photography, packaging, logos, publications, the internet, film, television, and animation.

Program Course Requirements

GDES 1105	Concepts of Design	3 cr
GDES 1120	Publication Design	3 cr
GDES 1122*	Graphic Design Production	3 cr
GDES 1124	Corporate ID	3 cr
GDES 1134	Typography	3 cr
GDES1140	Adobe Photoshop	3 cr
GDES 1142	Adobe Illustrator	3 cr
GDES 1144	Adobe InDesign	3 cr
GDES 2100*	Graphic Design I	3 cr
GDES 2102*	Graphic Design II	3 cr
GDES 2113*	Art Direction	3 cr
GDES 2120*	Packaging	3 cr
GDES 2124	Portfolio Production	3 cr
GDES 2130	Motion Graphics I	3 cr
GDES 2132	Designs in Social Media	3 cr
Choose credits from GDES or VPRO courses		3 cr

Students must complete six (6) credits of Minnesota Transfer Curriculum classes. Choosing from the following courses is recommended:

ARTS 1403	Color Photo I (Goal 6)	3 cr
ENGL 1410	Composition I (Goal 1)	4 cr
ENGL 1422	Practical Writing (Goal 1)	3 cr

GRADUATION REQUIREMENT - 54 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (15 credits)

GDES 1105 Concepts of Design ..... 3 cr
GDES 1134 Typography ..... 3 cr
GDES 1140 Adobe Photoshop ..... 3 cr
GDES 1142 Adobe Illustrator ..... 3 cr
GDES 1144 Adobe InDesign ..... 3 cr

Semester Two (15 credits)

GDES 1120 Publication Design ..... 3 cr
GDES 1122* Graphic Design Production ..... 3 cr
GDES 1124 Corporate ID ..... 3 cr
Minnesota Transfer Curriculum ..... 6 cr

Semester Three (12 credits)

GDES 2100* Graphic Design I ..... 3 cr
GDES 2120* Packaging ..... 3 cr
GDES 2130 Motion Graphics I ..... 3 cr
GDES 2132 Design in Social Media ..... 3 cr

Semester Four (12 credits)

GDES 2102* Graphic Design II ..... 3 cr
GDES 2113* Art Direction ..... 3 cr
GDES 2124 Portfolio Production ..... 3 cr
GDES or VPRO courses ..... 3 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Transfer Opportunities

Students have the opportunity to transfer to Bemidji State University and finish a four-year Bachelor of Arts in Design Technology with an emphasis in Digital Design/Print, Digital Design/Electronic, or Exhibit Design. See an advisor for further information.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.
4. Graphic Design students are required to purchase an Apple Macintosh laptop with the Adobe Creative Cloud software. See latest requirement through bookstore website.

Central Lakes College, Brainerd Campus 2020-2021

Graphic Design Media Technologies

Diploma (D222)

Technical Requirements 43
Total Credits 43

Program Description

Graphic Designers are a key component in promoting people, corporations and products to consumers. We work in many areas from print/production design, website/social media design, motion graphics and animation design. Designers go through a process of conception, creation and communication of visual effects in all aspects of advertising. We offer instruction using the latest in today's technology and innovative techniques for this career field. We help connect students to challenges of exciting, creative, and rewarding career opportunities. We "Design It." In the Graphic Design Program, students will take visual ideas from initial concept through creative and technical development and, ultimately, to a final form that is ready for production. Various tools are used, from hand tools for sketches to the latest computerized aids. We focus on projects modeled with industry realities, relevant to high-impact, effective communication.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Select appropriate software tools to achieve effective design solutions;
- Communicate design concepts at various stages of development using the design process;
- Develop print and multimedia concepts using traditional, computer-based, and video design tools;
- Develop and present creative portfolios verbally and in writing to clients;
- Interact with clients, marketing personnel, copy writers, web designers, photographers, and printing companies; and
- Demonstrate a respect for diversity of ideas and concepts in a group environment.

Program Course Requirements

GDES 1105	Concepts of Design	3 cr
GDES 1122*	Graphic Design Production	3 cr
GDES1140	Adobe Photoshop	3 cr
GDES 1142	Adobe Illustrator	3 cr
GDES 1144	Adobe InDesign	3 cr
GDES 2130	Motion Graphics I	3 cr
GDES 2132	Designs in Social Media	3 cr
GDES 2352	Shop Internship	12 cr
Choose credits from GDES or VPRO courses		10 cr

GRADUATION REQUIREMENT - 43 CREDITS

**Denotes Prerequisites*

Career Opportunities

A graphic designer is a creative problem solver who is trained to conceive, plan, and execute a design that communicates a direct message to an audience in an imaginative and visually arresting manner. Effective visual communication requires a graphic designer to communicate ideas and information in ways that will get the attention of, and motivate, a viewer. Ideas are generated through a design process in which graphic designers research, organize, and interpret the information; define the objectives; originate ideas; and create new visual forms. New and constantly evolving computer and communication technologies further challenge the role of the graphic designer in creating imaginative and clear messages for vastly different audiences. Meeting this challenge requires use of the best media tools for development and delivery of ideas and information: print, photography, packaging, logos, publications, the Internet, film, television, and animation.

Semester Course Requirements

Semester One (18 credits)

GDES 1105	Concepts of Design	3 cr
GDES 1140	Adobe Photoshop	3 cr
GDES 1142	Adobe Illustrator	3 cr
GDES 1144	Adobe InDesign	3 cr
GDES 2130	Motion Graphics I	3 cr
GDES 2132	Design in Social Media	3 cr

Semester Two (13 credits)

GDES 1122*	Graphic Design Production	3 cr
Choose credits from GDES or VPRO courses		10 cr

Semester Three (12 credits)

GDES 2352	Shop Internship	12 cr

Transfer Opportunities

Students have the opportunity to transfer to Bemidji State University and finish a four-year Bachelor of Arts in Design Technology with an emphasis in Digital Design/Print, Digital Design/Electronic, or Exhibit Design.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.
4. Graphic Design students are required to purchase an Apple Macintosh laptop with the Adobe Creative Cloud software. See latest requirement through bookstore website.

Central Lakes College, Brainerd Campus 2020-2021

Healthcare Administrative Specialist

Associate in Applied Science (A071)

Technical Requirements 45
MN Transfer Curriculum 15
Total Credits 60

Program Description

The 60-credit Healthcare Administrative Specialist Associate of Applied Science (A.A.S.) program graduate is prepared to assume duties in the field including basics of ICD and CPT coding, reimbursement methodologies, quality assessment, legal, accreditation, and electronic health record systems. In addition to the diploma skills, graduates of the A.A.S. program will be able to use and maintain electronic applications and work processes to support healthcare business procedures, workflow, and reform; identify and prevent fraud and abuse while maintaining corporate compliance including HIPAA and HITECH; conduct analysis to ensure the documentation in the health record supports the diagnosis and reflects the patient's progress, clinical findings, and discharge status; and to support physician reimbursement and revenue cycle management.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate understanding of how their role fits into and affects their department, other departments, and the organization;
- Identify and utilize appropriate technologies used to capture, retrieve, and maintain information from internal and external sources;
- Apply knowledge of human structure and function, diseases and disorders, and medical terminology as it relates to their healthcare role;
- Apply policies, procedures, and regulation standards surrounding issues of access and disclosure of protected health information and organizational compliance;
- Evaluate the revenue cycle management process (emphasis on billing procedures);
- Analyze documentation in the health record to ensure it supports the diagnosis and reflects the patient's progress, clinical findings, and discharge status;
- Demonstrate effective verbal and written communication within the healthcare environment;
- Describe positive work behaviors, personal traits and attitudes desirable in members of a healthcare team;
- Understand accepted ethical practices with respect to cultural, social, religious and ethnic differences within the healthcare environment.

Program Course Requirements

HINS 1122** Body Structures and Functions for Healthcare Professionals **OR**
BIOL 1404** Human Biology (Goal 3) .....3 cr
BUSN 1166 Business Communications.....3 cr
COMP 1120 Introduction to Computer Applications .....3 cr
HINS 1120 Introduction to Health Information Privacy and Security .....1 cr
HINS 1142 Healthcare Information Systems.....3 cr
HINS 1144* Pharmacology for Healthcare Admin. .....1 cr
HINS 1150* Introduction to DX and Procedure Coding ..3 cr
HINS 1152 Medical Insurance and Billing .....2 cr
HINS 1154 Introduction to Health Data Analysis .....3 cr
HINS 1156 Interpersonal Skills for Healthcare Professionals .....1 cr
HINS 1163 Medical Office Procedures .....2 cr
HINS 1165 Medical Records Management .....3 cr
HINS 1360 Medical Terminology.....3 cr
HINS 2144 Legal Aspects of Healthcare .....2 cr
HINS 2148 Healthcare Management and Organization .....3 cr
HINS 2172* Reimbursement Methodologies .....2 cr

Students must select a minimum of six (6) credits from the following courses:

BUSN 1110 Marketing Principles .....3 cr
COMP 1121 Advanced Computer Applications.....3 cr
COMP 1135 Microsoft Excel Comprehensive.....4 cr
HINS 2140 Advanced Medical Coding.....4 cr
HINS 2142 Medical Certification Prep.....3 cr
HINS 2190 Professional Practicum.....2 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must one of the include the following courses:

COMM 1420 Interpersonal Communication (Goal 1) **OR**
COMM 1422 Honors Interpersonal Communication.....3 cr

Additional Minnesota Transfer Curriculum courses to total 60 credits ..... 9-10 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*
***Students intending to transfer or pursue medical coding certification should take BIOL 1404.*

Semester Course Requirements

Semester One (15 credits)
HINS 1122** Body Structures and Functions for Healthcare Professionals **OR**
BIOL 1404** Human Biology (Goal 3) ..... 3 cr
1st Half Semester
HINS 1120 Intro to Health Info Privacy and Security ... 1 cr
HINS 1163 Medical Office Procedures ..... 2 cr
HINS 1360 Medical Terminology ..... 3 cr
2nd Half Semester
HINS 1152 Medical Insurance and Billing ..... 2 cr
HINS 1154 Introduction to Health Data Analysis ..... 3 cr
HINS 1156 Interpersonal Skills for Healthcare Professionals ..... 1 cr

Semester Two (16 credits)
BUSN 1166 Business Communications ..... 3 cr
COMP 1120 Introduction to Computer Applications ..... 3 cr
1st Half Semester
HINS 1144* Pharmacology for Healthcare Admin. ..... 1 cr
HINS 1165 Medical Records Management ..... 3 cr
2nd Half Semester
HINS 1142 Healthcare Information Systems ..... 3 cr
HINS 1150* Intro to DX and Procedure Coding ..... 3 cr

Semester Three (15 credits)
Minnesota Transfer Curriculum courses ..... 8-9 cr
1st Half Semester
HINS 2140 Advanced Medical Coding **OR**
Additional required core course from list ..... 3-4 cr
2nd Half Semester
HINS 2142 Medical Certification Prep **OR**
Additional required core course from list ..... 3 cr

Semester Four (14 credits)
Minnesota Transfer Curriculum courses ..... 7 cr
1st Half Semester
HINS 2144 Legal Aspects of Healthcare ..... 2 cr
HINS 2148 Healthcare Management and Organization ..... 3 cr
2nd Half Semester
HINS 2172* Reimbursement Methodologies ..... 2 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Career Opportunities

Healthcare Administrative Specialist is ideal for individuals interested in healthcare careers, but are not interested in hands-on patient care. The medical community depends on educated staff to collect, interpret, analyze, protect and organize medical information so that it may be used for continuity of care, reimbursement, and quality improvement. Health administrative professionals work closely with providers, nurses, and other healthcare staff to contribute to quality patient care behind the scenes. Opportunities exist in hospitals, clinics, long-term care facilities, nursing homes, behavioral health facilities, insurance agencies, home health agencies, consulting firms, government agencies, and medical supply organizations.

Admissions Requirements

The A.A.S. degree and diploma are offered as full-time programs. Students can start at the beginning of fall or spring. This program is a combination of in-classroom, hybrid (both in-class, LiveOnline and online), and online formats. Students pursuing the A.A.S. degree will find the second year courses are offered in an online format to allow for employment while completing the degree.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Healthcare Administrative Specialist

Diploma (D070)

Technical Requirements 31
Total Credits 31

Program Description

The 31-credit Healthcare Administrative Specialist Diploma program prepares students to assume duties in the healthcare field including patient service representative, registration, scheduling, and release of information. Graduates of the diploma program will be able maintain accuracy and completeness of the patient record as defined by organizational policy and external regulations and standards, apply policies and procedures for access and disclosure of personal health information, and apply confidentiality and security measures to protect electronic health information.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate understanding of how their role fits into and affects their department, other departments, and the organization;
- Identify and utilize appropriate technologies used to capture, retrieve, and maintain information from internal and external sources;
- Apply knowledge of human structure and function, diseases and disorders, and medical terminology as it relates to their healthcare role;
- Apply policies, procedures, and regulation standards surrounding issues of access and disclosure of protected health information and organizational compliance;
- Analyze documentation in the health record to ensure it supports the diagnosis and reflects the patient's progress, clinical findings, and discharge status;
- Demonstrate effective verbal and written communication within the healthcare environment;
- Describe positive work behaviors, personal traits and attitudes desirable in members of a healthcare team;
- Understand accepted ethical practices with respect to cultural, social, religious and ethnic differences within the healthcare environment.

Program Course Requirements

HINS 1122** Body Structures and Functions for Healthcare Professionals **OR**
BIOL 1404** Human Biology (Goal 3) .....3 cr
BUSN 1166 Business Communications.....3 cr
COMP 1120 Introduction to Computer Applications .....3 cr
HINS 1120 Introduction to Health Information Privacy and Security .....1 cr
HINS 1142 Healthcare Information Systems.....3 cr
HINS 1144* Pharmacology for Healthcare Admin. .....1 cr
HINS 1150* Introduction to DX and Procedure Coding.....3 cr
HINS 1152 Medical Insurance and Billing .....2 cr
HINS 1154 Introduction to Health Data Analysis .....3 cr
HINS 1156 Interpersonal Skills for Healthcare Professionals .....1 cr
HINS 1163 Medical Office Procedures .....2 cr
HINS 1165 Medical Records Management .....3 cr
HINS 1360 Medical Terminology.....3 cr

GRADUATION REQUIREMENT - 31 CREDITS

**Denotes Prerequisites*
***Students intending to transfer or pursue medical coding certification should take BIOL 1404.*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Admissions Requirements

The A.A.S. degree and diploma are offered as full-time programs. Students can start at the beginning of fall or spring. This program is a combination of in-classroom, hybrid (both in-class, LiveOnline and online), and online formats. Students pursuing the A.A.S. degree will find the second year courses are offered in an online format to allow for employment while completing the degree.

Semester Course Requirements

Semester One (15 credits)

HINS 1122** Body Structures and Functions for Healthcare Professionals **OR**
BIOL 1404** Human Biology (Goal 3) ..... 3 cr

1st Half Semester

HINS 1120 Introduction to Health Information Privacy and Security ..... 1 cr
HINS 1163 Medical Office Procedures ..... 2 cr
HINS 1360 Medical Terminology ..... 3 cr

2nd Half Semester

HINS 1152 Medical Insurance and Billing ..... 2 cr
HINS 1154 Introduction to Health Data Analysis ..... 3 cr
HINS 1156 Interpersonal Skills for Healthcare Professionals ..... 1 cr

Semester Two (16 credits)

BUSN 1166 Business Communications ..... 3 cr
COMP 1120 Introduction to Computer Applications ..... 3 cr

1st Half Semester

HINS 1144* Pharmacology for Healthcare Admin. ..... 1 cr
HINS 1165 Medical Records Management ..... 3 cr

2nd Half Semester

HINS 1142 Healthcare Information Systems ..... 3 cr
HINS 1150* Intro to DX and Procedure Coding ..... 3 cr

Career Opportunities

Healthcare Administrative Specialist is ideal for individuals interested in healthcare careers, but are not interested in hands-on patient care. The medical community depends on educated staff to collect, interpret, analyze, protect and organize medical information so that it may be used for continuity of care, reimbursement, and quality improvement. Health administrative professionals work closely with providers, nurses, and other healthcare staff to contribute to quality patient care behind the scenes. Opportunities exist in hospitals, clinics, long-term care facilities, nursing homes, behavioral health facilities, insurance agencies, home health agencies, consulting firms, government agencies, and medical supply organizations.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Healthcare Administrative Specialist

Certificate (C071)

Technical Requirements 16
Total Credits 16

Program Description

This 16-credit certificate is specifically designed to help students obtain an entry-level, rewarding position in a healthcare facility assisting patients in scheduling and preregistration. Students may be asked to research medical records and contact patients for follow-up appointments to ensure quality patient care and continuity in their healthcare maintenance plans. The certificate allows for students to complete an onsite practicum with a local healthcare facility.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate understanding of how their role fits into and affects their department, other departments, and the organization;
- Demonstrate professional behavior and communication with patients and their families using compassion and empathy;
- Effectively work with a medical office team in relation to business functions;
- Demonstrate knowledge of electronic health records diagnosis searches;
- Demonstrate initiative by asking for or suggesting work to improve departmental goals, with minimal supervision;
- Maintain patient privacy by implementing HIPAA and HITECH rules and regulations; and
- Maintain privacy with healthcare facilities business information and represent the organization positively and professionally.

Program Course Requirements

HINS 1122** Body Structures and Functions for Healthcare Professionals **OR**
BIOL 1404** Human Biology (Goal 3) .....3 cr
BUSN 1166 Business Communications.....3 cr
HINS 1120 Introduction to Health Information Privacy and Security .....1 cr
HINS 1156 Interpersonal Skills for Healthcare Professionals .....1 cr
HINS 1163 Medical Office Procedures .....2 cr
HINS 1165 Medical Records Management .....3 cr
HINS 1360 Medical Terminology.....3 cr

GRADUATION REQUIREMENT - 16 CREDITS

**Denotes Prerequisites*
***Students intending to transfer or pursue medical coding certification should take BIOL 1404.*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Career Opportunities

The medical community depends on educated staff to collect, interpret, analyze, protect and organize medical information so that it may be used for continuity of care, reimbursement, and quality improvement. Health administrative professionals work closely with providers, nurses, and other healthcare staff to contribute to quality patient care behind the scenes. Students who obtain this certificate will be qualified to work as a patient scheduler, pre-registration clerk or work in a patient care call center.

Semester Course Requirements

Semester One (10 credits)

HINS 1122** Body Structures and Functions for Healthcare Professionals **OR**
BIOL 1404** Human Biology (Goal 3) ..... 3 cr
HINS 1120 Introduction to Health Information Privacy and Security ..... 1 cr
HINS 1156 Interpersonal Skills for Healthcare Professionals ..... 1 cr
HINS 1163 Medical Office Procedures ..... 2 cr
HINS 1360 Medical Terminology ..... 3 cr

Semester Two (6 credits)

BUSN 1166 Business Communications ..... 3 cr
HINS 1165 Medical Records Management ..... 3 cr

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Heavy Equipment Operation & Maintenance

Diploma (D360)

Technical Requirements 64
Total Credits 64

Program Description

The Heavy Equipment Operation and Maintenance Program is a unique program offered in Minnesota. The program includes courses in both maintenance and operation of heavy construction equipment. Incorporated into the program is the opportunity to "fast track," which includes attending summer session and completing the program with a fourth semester paid internship in industry. Students learn skills necessary to service and maintain a fleet of heavy equipment. Opportunities exist using simulators to improve skills in truck driving and operation of equipment. Students are given real life projects in the operations field, experiencing hands-on training with dozers, scrapers, graders, backhoes, wheel loaders, excavators, skid steers and trucks. Experienced faculty share their knowledge and experience from industry with the next generation of heavy equipment operators. Training takes place at the 360-acre Staples West Campus operations training site, with ample space for students to experience hands-on equipment operation. The West Campus includes an up-to-date classroom facility and nine-bay maintenance shop with overhead cranes, welding bay and dedicated wash bays. The classroom facility includes a soils lab where students are instructed in various types of soil identification and testing. The program stresses the importance of safety, strong work ethic, and the value of continuing education and lifelong learning. We strive to train students in the highest standards of quality and integrity to enhance economic growth in communities.

Career Opportunities

This in the seat, hands-on training program will prepare you for an industry that continually shapes and changes the physical environment. You will be able to become part of the crew that builds a roadway, lays pipe for the city, or demolishes a building to make way for a new sports facility, office building or shopping center. Train under knowledgeable faculty and learn to operate dozers, excavators, motor graders, loaders, skid steer, backhoes and haul trucks. This in-depth knowledge will make you a valuable asset in the construction industry. Employment opportunities exist nationwide in various areas of the construction industry, including highway construction, underground utilities, pipelines and oil fields, mining, flood control, demolition, mining and logging, and with state and local governments.

Program Course Requirements

CCST 1530	Employment Strategies	3 cr
COMP 1101	Computer Fundamentals	3 cr
HEOM 1101	Construction Safety and First Aid	1 cr
HEOM 1107	Tools, Fasteners, Shop Practices	1 cr
HEOM 1108	Heavy Equipment Math/Estimating	2 cr
HEOM 1110*	Preventative Maintenance	5 cr
HEOM 1151	Heavy Equipment Welding	1 cr
HEOM 1165*	Commercial Driver's License	3 cr
HEOM 1166	Class A CDL Permit	1 cr
HEOM 1200	Intro to Operations	1 cr
HEOM 1211	Servicing I	3 cr
HEOM 1212*	Servicing II	2 cr
HEOM 1261*	General Lab	5 cr
HEOM 2102*	Construction Survey/Blueprints	5 cr
HEOM 2103*	Soils and Compaction	4 cr
HEOM 2110*	Backhoe/Excavator Theory	1 cr
HEOM 2111*	Loader Theory	1 cr
HEOM 2134*	Operations Theory	1 cr
HEOM 2135*	Construction Theory	1 cr
HEOM 2136*	Grading Lab I	5 cr
HEOM 2138*	Grading Lab II	4 cr
HEOM 2140*	Excavation Lab I	3 cr
HEOM 2141*	Excavation Lab II	3 cr
HEOM 2142*	Excavation Lab III	3 cr
HEOM 2150	Competent Person	2 cr

GRADUATION REQUIREMENT - 64 CREDITS

**Denotes Prerequisites*

Program Admissions Requirements

- The Heavy Equipment Operation and Maintenance Program is offered as a full-time day program. New students are accepted into the program in August and December.
- Students must complete Accuplacer assessment testing prior to acceptance into the program.
- Students must be 18 years old prior to the start of the first semester.
- Students must possess a valid Class D driver's license and have the ability to obtain a Class A (CDL) in accordance with program timelines. Once a student has passed the Class A (CDL), they must maintain the license in a valid status throughout the remainder of the program.
- Students will be required to participate in random drug and alcohol screening throughout the program.

Semester Course Requirements

Semester One (15 credits)

COMP 1101	Computer Fundamentals	3 cr
HEOM 1101	Construction Safety and First Aid	1 cr
HEOM 1107	Tools, Fasteners, Shop Practices	1 cr
HEOM 1108	Heavy Equipment Math/Estimating	2 cr
HEOM 1165*	Commercial Driver's License	3 cr
HEOM 1166	Class A CDL Permit	1 cr
HEOM 1200	Intro to Operations	1 cr
HEOM 1211	Servicing I	3 cr

Semester Two (15 credits)

HEOM 1110*	Preventative Maintenance	5 cr
HEOM 1151	Heavy Equipment Welding	1 cr
HEOM 1212*	Servicing II	2 cr
HEOM 2102*	Construction Survey/Blueprints	5 cr
HEOM 2150	Competent Person	2 cr

Semester Three (18 credits)

CCST 1530	Employment Strategies	3 cr
HEOM 2103*	Soils and Compaction	4 cr
HEOM 2134*	Operations Theory	1 cr
HEOM 2135*	Construction Theory	1 cr
HEOM 2136*	Grading Lab I	5 cr
HEOM 2138*	Grading Lab II	4 cr

Semester Four (16 credits)

HEOM 1261*	General Lab	5 cr
HEOM 2110*	Backhoe/Excavator Theory	1 cr
HEOM 2111*	Loader Theory	1 cr
HEOM 2140*	Excavation Lab I	3 cr
HEOM 2141*	Excavation Lab II	3 cr
HEOM 2142*	Excavation Lab III	3 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Courses must be taken in the semester indicated in the program planning form specific to month student began the program. Any deviation from this order requires approval by the HEOM department with full time program students having priority for classes.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Perform basic operations of earthmoving equipment related to grading and excavation needs;
- Perform basic heavy equipment maintenance and repairs;
- Demonstrate written and verbal comprehension of basic surveying techniques related to grades, elevations and blueprint reading;
- Identify and practice safe work habits as required by OSHA and industry standards;
- Obtain a current OSHA 10 hour Safety Card;
- Obtain a Class A Commercial Driver's License;
- Obtain an Adult First Aid/CPR/AED Certification;
- Obtain a Minnesota Aggregate Certification.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.
4. Students participating in the December Fast Track option must maintain a 3.0 cumulative GPA throughout the program.

Central Lakes College, Staples Campus 2020-2021

Heavy Equipment Operation & Maintenance

Diploma (D361) DECEMBER Start

Technical Requirements 64
Total Credits 64

Program Description

The Heavy Equipment Operation and Maintenance Program is a unique program offered in Minnesota. The program includes courses in both maintenance and operation of heavy construction equipment. Incorporated into the program is the opportunity to "fast track," which includes attending summer session and completing the program with a fourth semester paid internship in industry. Students learn skills necessary to service and maintain a fleet of heavy equipment. Opportunities exist using simulators to improve skills in truck driving and operation of equipment. Students are given real life projects in the operations field, experiencing hands-on training with dozers, scrapers, graders, backhoes, wheel loaders, excavators, skid steers and trucks. Experienced faculty share their knowledge and experience from industry with the next generation of heavy equipment operators. Training takes place at the 360-acre Staples West Campus operations training site, with ample space for students to experience hands-on equipment operation. The West Campus includes an up-to-date classroom facility and nine-bay maintenance shop with overhead cranes, welding bay and dedicated wash bays. The classroom facility includes a soils lab where students are instructed in various types of soil identification and testing. The program stresses the importance of safety, strong work ethic, and the value of continuing education and lifelong learning. We strive to train students in the highest standards of quality and integrity to enhance economic growth in communities.

Career Opportunities

This in the seat, hands-on training program will prepare you for an industry that continually shapes and changes the physical environment. You will be able to become part of the crew that builds a roadway, lays pipe for the city, or demolishes a building to make way for a new sports facility, office building or shopping center. Train under knowledgeable faculty and learn to operate dozers, excavators, motor graders, loaders, skid steer, backhoes and haul trucks. This in-depth knowledge will make you a valuable asset in the construction industry. Employment opportunities exist nationwide in various areas of the construction industry, including highway construction, underground utilities, pipelines and oil fields, mining, flood control, demolition, mining and logging, and with state and local governments.

Program Course Requirements

CCST 1530	Employment Strategies	3 cr
COMP 1101	Computer Fundamentals	3 cr
HEOM 1101	Construction Safety and First Aid	1 cr
HEOM 1107	Tools, Fasteners, Shop Practices	1 cr
HEOM 1108	Heavy Equipment Math/Estimating	2 cr
HEOM 1110*	Preventative Maintenance	5 cr
HEOM 1151	Heavy Equipment Welding	1 cr
HEOM 1165*	Commercial Driver's License	3 cr
HEOM 1166	Class A CDL Permit	1 cr
HEOM 1200	Intro to Operations	1 cr
HEOM 1211	Servicing I	3 cr
HEOM 1212*	Servicing II	2 cr
HEOM 2102*	Construction Survey/Blueprints	5 cr
HEOM 2103*	Soils and Compaction	4 cr
HEOM 2110*	Backhoe/Excavator Theory	1 cr
HEOM 2111*	Loader Theory	1 cr
HEOM 2134*	Operations Theory	1 cr
HEOM 2135*	Construction Theory	1 cr
HEOM 2138*	Grading Lab II	4 cr
HEOM 2141*	Excavation Lab II	3 cr
HEOM 2142*	Excavation Lab III	3 cr
HEOM 2150	Competent Person	2 cr
HEOM 2350*	Operator Internship	13 cr

GRADUATION REQUIREMENT - 64 CREDITS

**Denotes Prerequisites*

Program Admissions Requirements

- The Heavy Equipment Operation and Maintenance Program is offered as a full-time day program. New students are accepted into the program in August and December.
- Students must complete Accuplacer assessment testing prior to acceptance into the program.
- Students must be 18 years old prior to the start of the first semester.
- Students must possess a valid Class D driver's license and have the ability to obtain a Class A (CDL) in accordance with program timelines. Once a student has passed the Class A (CDL), they must maintain the license in a valid status throughout the remainder of the program.
- Students will be required to participate in random drug and alcohol screening throughout the program.

Semester Course Requirements

Semester One (16 credits)

HEOM 1107 Tools, Fasteners, Shop Practices 1
HEOM 1108 Heavy Equipment Math/Estimating 2
HEOM 1110* Preventative Maintenance 5
HEOM 1211 Servicing I 3
HEOM 2102* Construction Survey/Blueprints 5

Semester Two (19 credits)

COMP 1101 Computer Fundamentals 3
CCST 1530 Employment Strategies 3
HEOM 1101 Construction Safety and First Aid 1
HEOM 1151 Heavy Equipment Welding 1
HEOM 1165* Commercial Driver's License 3
HEOM 1166 Class A CDL Permit 1
HEOM 1200 Intro to Operations 1
HEOM 2103* Soils and Compaction 4
HEOM 2150 Competent Person 2

Semester Three - Summer 1st Year (16 credits)

HEOM 1212* Servicing II 2
HEOM 2110* Backhoe/Excavator Theory 1
HEOM 2111* Loader Theory 1
HEOM 2134* Operations Theory 1
HEOM 2135* Construction Theory 1
HEOM 2138* Grading Lab II 4
HEOM 2141* Excavation Lab II 3
HEOM 2142* Excavation Lab III 3

Semester Four - Fall 2nd Year (13 credits)

HEOM 2350* Operator Internship 13

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Courses must be taken in the semester indicated in the program planning form specific to month student began the program. Any deviation from this order requires approval by the HEOM department with full time program students having priority for classes.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Perform basic operations of earthmoving equipment related to grading and excavation needs;
- Perform basic heavy equipment maintenance and repairs;
- Demonstrate written and verbal comprehension of basic surveying techniques related to grades, elevations and blueprint reading;
- Identify and practice safe work habits as required by OSHA and industry standards;
- Obtain a current OSHA 10 hour Safety Card;
- Obtain a Class A Commercial Driver's License;
- Obtain an Adult First Aid/CPR/AED Certification;
- Obtain a Minnesota Aggregate Certification.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.
4. Students participating in the December Fast Track option must maintain a 3.0 cumulative GPA throughout the program.

Central Lakes College, Brainerd Campus 2020-2021

Horticulture, A.A.S.

Associate of Applied Science Degree (A250)

Technical Requirements 45
Mn Transfer Curriculum 15
Total Credits 60

Program Description

For 40+ years CLC has been training students for careers in horticulture. The Horticulture Associate of Applied Science (A.A.S.) Degree covers a broad spectrum of the horticulture industry. While completing their A.A.S. Degree, students may also complete the Sustainable Local Food Certificate, Sustainable Greenhouse Diploma, or Sustainable Landscaping Diploma. One of the best things about horticulture is the number of different specialties and career opportunities available. This variety allows people with different backgrounds, skills and interests to find satisfying careers. Students appreciate the hands-on instruction and practice they receive; planting and caring for plants in the greenhouse; being able to identify and design with the many annuals, perennials, shrubs and trees; and participating in many other activities connected with plants.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify regional and Minnesota plants by common name, genus and species;
- Propagate, grow, and maintain plants in horticultural production systems;
- Identify and prescribe sustainable options in horticulture which benefit the environment while maintaining productivity and economic viability;
- Design, construct and install plants for landscape projects;
- Apply effective communication and interpersonal skills with co-workers, supervisors, suppliers and customers.

Career Opportunities

An Associate of Applied Science (A.A.S.) in Horticulture is the gateway to a wide variety of careers in the ever-growing horticulture industry. Employment opportunities can be found in greenhouse production, landscaping, floral design and sales, as well as horticulture therapy, interior plantscaping, plant and flower brokering, and freelance design. Careers available are largely dependent on your goals.

Program Course Requirements

HORT 1104	Plant Science	4 cr
HORT 1106	Applied Plant Science Lab	2 cr
HORT 1108	Fundamentals of Floral Design	4 cr
HORT 1113	Annuals and Perennials	4 cr
HORT 1118	Indoor Flowering & Foliage Plants	4 cr
HORT 1122	Local Food Production	3 cr
HORT 1180	Sustainable Landscaping	3 cr
HORT 1196	Sustainable Greenhouse Management	4 cr
HORT 2112	Aquaponics and Hydroponics	5 cr
HORT 2116	Integrated Pest Management	4 cr
HORT 2140	Arboriculture	4 cr
HORT 2165	Landscape Design	4 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC).
Minnesota Transfer Curriculum courses .....15 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (15 credits)

HORT 1104 Plant Science..... 4 cr
HORT 1106 Applied Plant Science Lab..... 2 cr
HORT 1108 Fundamentals of Floral Design ..... 4 cr
HORT 2112 Aquaponics and Hydroponics..... 5 cr

Semester Two (16 credits)

HORT 2112 Aquaponics and Hydroponics..... 5 cr
HORT 1122 Local Food Production..... 3 cr
HORT 1180 Sustainable Landscaping..... 3 cr
HORT 1196 Sustainable Greenhouse Management ..... 4 cr
Minnesota Transfer Curriculum courses..... 6 cr

Semester Three (15 credits)

HORT 1113 Annuals and Perennials ..... 4 cr
HORT 2140 Arboriculture ..... 4 cr
HORT 2165 Landscape Design ..... 4 cr
Minnesota Transfer Curriculum courses..... 3 cr

Semester Four (14 credits)

HORT 1118 Indoor Flowering & Foliage Plants..... 4 cr
HORT 2116 Integrated Pest Management ..... 4 cr
Minnesota Transfer Curriculum courses..... 6 cr

Transfer Opportunities

Articulation agreements are currently in place with the University of Minnesota. You may attend your first two years of college at Central Lakes College and transfer your credits to further your degree in Agricultural Education or Horticulture at the University of Minnesota Twin Cities or Crookston Campuses. Courses may also transfer to many other four-year universities Students planning to pursue a bachelor's degree are strongly encouraged to consult with an advisor about transfer information for specific four-year colleges.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Sustainable Greenhouse Production

Diploma (D251)

Technical Requirements 32
Total Credits 32

Program Description

Students enrolled in the one-year Sustainable Greenhouse Production Program will learn how to schedule, produce, and care for a wide variety of plants grown commercially in the Upper Midwest, as well as how to properly construct and manage a greenhouse production facility. A state-of-the-art greenhouse and laboratory provide the opportunity to learn in real-life situations.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify and practice safe use of tools, equipment and supplies used in horticulture careers;
- Identify regional and Minnesota plants by common name, genus and species003B
- Propagate, grow, and maintain plants in horticultural production systems;
- Identify and prescribe sustainable options in horticulture which benefit the environment while maintaining productivity and economic viability;
- Design greenhouse production structures and systems;
- Apply effective communication and interpersonal skills with co-workers, supervisors, suppliers and customers.

Career Opportunities

Sustainable Greenhouse Production graduates help produce a variety of ornamental plants such as bedding plants, holiday plants (Easter lilies, poinsettias, etc.), and plants for special occasions. The greenhouse facilities range from small, family run operations to large commercial production greenhouses. The greenhouse industry is quickly becoming a high-tech industry with computers, robotics, and other exciting innovations. People who appreciate natural beauty, enjoy caring for plants and flowers, and have an attention for detail are particularly well suited for this career. This program will help students prepare for a wide range of careers, including greenhouse owner/manager, greenhouse foreman, propagator, pest control, coordinator, plant sales, plant and supply buyer, greenhouse supply, representative, and plant consultant.

Program Course Requirements

HORT 1104	Plant Science	4 cr
HORT 1106	Applied Plant Science Lab	2 cr
HORT 1113	Annuals and Perennials	4 cr
HORT 1118	Indoor Flowering & Foliage Plants	4 cr
HORT 1196	Sustainable Greenhouse Management	4 cr
HORT 1122	Local Food Production	3 cr
HORT 1345	Internship	2 cr
HORT 2112	Aquaponics and Hydroponics	5 cr
HORT 2116	Integrated Pest Management	4 cr

GRADUATION REQUIREMENT - 32 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (16-17 credits)

HORT 1104	Plant Science	4 cr
HORT 1106	Applied Plant Science Lab	2 cr
HORT 1113	Annuals and Perennials	4 cr
HORT 1345	Internship	1-2 cr
HORT 2112	Aquaponics and Hydroponics	5 cr

Semester Two (15-16 credits)

HORT 1118	Indoor Flowering & Foliage Plants	4 cr
HORT 1196	Sustainable Greenhouse Management	4 cr
HORT 1122	Local Food Production	3 cr
HORT 1345	Internship	1-2 cr
HORT 2116	Integrated Pest Management	4 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Transfer Opportunities

Many horticulture courses can be transferred to a variety of four-year colleges and universities. Because each college has its own requirements, always check with an advisor or counselor about transferability of specific courses to these other colleges.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Sustainable Landscaping

Diploma (D252)

Technical Requirements 56
General Education 6
Total Credits 62

Program Description

The Sustainable Landscaping Diploma provides students with a broad knowledge of the landscaping profession through real life situations in a practical, hands-on atmosphere. The courses are designed to provide knowledge for all phases of a landscape project. This knowledge includes in-depth information about the plants and products used in the landscaping industry, proper landscape design principles, up-to-date installation and construction practices, and procedures for estimating and bidding landscape projects.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify and practice safe use of tools, equipment and supplies used in horticulture careers;
- Identify regional and Minnesota plants by common name, genus and species;
- Propagate, grow, and maintain plants in horticultural production systems;
- Identify and prescribe sustainable options in horticulture which benefit the environment while maintaining productivity and economic viability;
- Design, construct and install landscape projects which include plants, patios, retaining walls and ponds; and
- Apply effective communication and interpersonal skills with co-workers, supervisors, suppliers and customers.

Career Opportunities

Sustainable landscaping graduates find careers in a variety of positions related to landscape design, landscape construction, landscape installation, golf course maintenance, and nursery production. The demand for qualified individuals with good skills and work habits is very high. People who enjoy creating beautiful surroundings, working outside, and improving the environment will benefit from the Sustainable Landscaping Program. Job opportunities include landscape design, construction, and installation, garden center sales and positions in the greenhouse and nursery industry.

Program Course Requirements

HORT 1103	Ornamental Trees and Shrubs	4 cr
HORT 1104	Plant Science	4 cr
HORT 1106	Applied Plant Science Lab	2 cr
HORT 1113	Annuals and Perennials	4 cr
HORT 1122	Local Food Production	3 cr
HORT 1150	Turf Management	3 cr
HORT 1180	Sustainable Landscaping	3 cr
HORT 1196	Sustainable Greenhouse Management	4 cr
HORT 2116	Integrated Pest Management	4 cr
HORT 2140	Arboriculture	4 cr
HORT 2150	Retaining Wall Construction	4 cr
HORT 2155	Deck, Patio, and Pond Construction	4 cr
HORT 2165	Landscape Design	4 cr
HORT 2170*	Advanced Landscape Design	4 cr
HORT 2180	Computer Assisted Landscape Design	4 cr
HORT 1345	Internship	1 cr
General Education		6 cr

GRADUATION REQUIREMENT - 62 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (17 credits)

HORT 1104 Plant Science....4 cr
HORT 1106 Applied Plant Science Lab....2 cr
HORT 2165 Landscape Design....4 cr
HORT 2150 Retaining Wall Construction OR....4 cr
HORT 2155 Deck, Patio, and Pond Construction....4 cr
General Education....3 cr

Semester Two (15 credits)

HORT 1103 Ornamental Trees and Shrubs....4 cr
HORT 1180 Sustainable Landscaping....3 cr
HORT 1196 Sustainable Greenhouse Management....4 cr
HORT 2180 Computer Assisted Landscape Design OR....4 cr
HORT 2170 Advanced Landscape Design....4 cr

Semester Three (15 credits)

HORT 1113 Annuals and Perennials....4 cr
HORT 2140 Arboriculture....4 cr
HORT 2150 Retaining Wall Construction OR....4 cr
HORT 2155 Deck, Patio, and Pond Construction....4 cr
General Education....3 cr

Semester Four (15 credits)

HORT 1150 Turf Management....3 cr
HORT 2116 Integrated Pest Management....4 cr
HORT 2170* Advanced Landscape Design OR....4 cr
HORT 2180 Computer Assisted Landscape Design....4 cr
HORT 1345 Internship....1 cr
HORT 1122 Local Food Production....3 cr

Transfer Opportunities

Many horticulture courses can be transferred to a variety of four-year colleges and universities. Because each college has its own requirements, always check with an advisor about transferability of specific courses to other colleges.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Sustainable Local Food

Certificate (C259)

Technical Requirements 22
Total Credits 22

Program Description

This Sustainable Local Food Certificate provides students with a broad knowledge of growing and marketing fresh fruits and vegetables near the area in which they were grown. Courses are designed to provide knowledge of common vegetable and fruit production practices in the upper Midwest, with an emphasis on growing those products in environmentally, socially, and economically sustainable manner. This knowledge includes best practices used in the production, harvesting, and storage of the produce that is most in demand in the local foods movement.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify and practice safe use of tools, equipment and supplies used in horticulture careers;
- Identify regional and Minnesota fruits, vegetables and nuts used for human consumption by common name, genus and species;
- Propagate, grow, and maintain plants in horticultural production systems;
- Identify and prescribe sustainable options in horticulture which benefit the environment while maintaining productivity and economic viability;
- Analyze and design food production systems for use in growing vegetable, fruit and nut species for the Upper Midwest; and
- Apply effective communication and interpersonal skills with co-workers, supervisors, suppliers and customers.

Career Opportunities

Local indoor and outdoor food production is on the rise due to the increased demand by consumers who want to know the origins of the food they eat in addition to the knowledge of how those plants were grown. Vegetable and fruit growing is a specialized occupation that requires knowledge of a variety of requirements for every individual plant. Companies are now recognizing that they need to hire people who have been well-trained in the details of plant growth needs. In addition, many people are finding opportunities to start their own business in fruit and vegetable production. Job opportunities are available as managers, growers, marketers, and sales in the companies that produce local food.

Program Course Requirements

HORT 1104	Plant Science	4 cr
HORT 1106	Applied Plant Science Lab	2 cr
HORT 1122	Local Food Production	3 cr
HORT 1196	Sustainable Greenhouse Management	4 cr
HORT 2112	Aquaponics and Hydroponics	5 cr
HORT 2116	Integrated Pest Management	4 cr

GRADUATION REQUIREMENT - 22 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (11 credits)

HORT 1104	Plant Science	4 cr
HORT 1106	Applied Plant Science Lab	2 cr
HORT 2112	Aquaponics and Hydroponics	5 cr

Semester Two (11 credits)

HORT 1122	Local Food Production	3 cr
HORT 1196	Sustainable Greenhouse Management	4 cr
HORT 2116	Integrated Pest Management	4 cr

Transfer Opportunities

Many horticulture courses can be transferred to a variety of four-year colleges and universities. Because each college has its own requirements, always check with an advisor or counselor about transfer-ability of specific courses to other colleges.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

CNC Technologies, A.A.S.

Associate of Applied Science Degree (A186)

Technical Requirements 49
MN Transfer Curriculum 15
Total Credits 64

Program Description

In the Machine Tool Technology program students learn how to use hand tools, laths and mills, computer-aided-drafting and design software, power machinery, and computerized equipment. The Associate of Applied Science (A.A.S.) Degree curriculum includes geometric tolerancing, advanced CAD/CAM, and advanced CNC milling and turning operations. Instruction takes place in a well-equipped shop for a hands-on, practical experience.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Read and interpret a mechanical working drawing;
- Perform precision measurement, layout, drilling, sawing, turning, milling, and precision grinding safely;
- Perform shop calculations;
- Program, setup, and operate a computer numerical control (CNC) turning center and machining center;
- Anticipate, choose, and troubleshoot the proper tooling based on manufacturing requirements;
- Manufacture assemblies to specification; and
- Apply effective communication and interpersonal skills in the machining industry.

Career Opportunities

Computer numerically controlled (CNC) machine tool programmers and operators develop and operate programs to control the machining or processing of metal or plastic parts by automatic machine tools, equipment, or systems. Most jobs are in manufacturing settings in a variety of industries including machine shops, aerospace, medical, automotive, and metalworking machining. Math, computer, and engineering skills are important in this field, but machinists also use a creative side to solve problems and make new designs. Examples of career titles in this field include numerical control machine operator, CNC programmer, robotic machine operator, numerical control drill press operator, lathe operator, automated cutting machine operator, machinist tool and die, precision instrument maker, and tool maker.

Program Course Requirements

CMAE 1528	Career Success Skills **OR**	
CMAE 1529	Career Success Skills	1 cr
MATH 1500	Applied Mathematics	3 cr
MTTS 1110	Principles of Machine Operations I	2 cr
MTTS 1111*	Principles of Machine Operations II	2 cr
MTTS 1120	Machine Operations I	3 cr
MTTS 1121	Machine Operations II	3 cr
MTTS 1122*	Machine Operations III	3 cr
MTTS 1124	Introduction to Engineering Graphics	2 cr
MTTS 1130	Print Reading	2 cr
MTTS 1131*	Print Applications	2 cr
MTTS 1134*	CNC Operations	3 cr
MTTS 1135	CNC Programming and Process Planning	2 cr
MTTS 1140	CAD/CAM I	2 cr
MTTS 2110	Geometric Dimensioning and Tolerancing	1 cr
MTTS 2112	Metallurgy	1 cr
MTTS 2116*	Introduction to EDM	2 cr
MTTS 2118*	Jigs and Fixtures	1 cr
MTTS 2130*	CNC Milling and Turning	4 cr
MTTS 2134*	CNC Operations Theory	2 cr
MTTS 2140*	CAD/CAM II	2 cr
MTTS 2155	Capstone Project	1-6 cr
MTTS 2190	Internship	4-6 cr
RAST 1109	Computers in Industry	2 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following courses:

ENGL 1422	Practical Writing (Goal 1)	3 cr
PHYS 1407*	Principles of Physics (Goal 3)	3 cr
Minnesota Transfer Curriculum Courses		9 cr

GRADUATION REQUIREMENT - 64 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (16 credits)

CMAE 1528 Career Success Skills **OR**
CMAE 1529 Career Success Skills 1
MATH 1500 Applied Mathematics 3
MTTS 1110 Principles of Machine Operations I 2
MTTS 1120 Machine Operations I 3
MTTS 1121 Machine Operations II 3
MTTS 1130 Print Reading 2
RAST 1109 Computers in Industry 2

Semester Two (16 credits)

MTTS 1111* Principles of Machine Operations II 2
MTTS 1122* Machine Operations III 3
MTTS 1124 Introduction to Engineering Graphics 2
MTTS 1131* Print Applications 2
MTTS 1134* CNC Operations 3
MTTS 1135 CNC Programming and Process Planning 2
MTTS 1140 CAD/CAM I 2

Semester Three (16 credits)

MTTS 2110 Geometric Dimensioning and Tolerancing 1
MTTS 2112 Metallurgy 1
MTTS 2116* Introduction to EDM 2
MTTS 2118* Jigs and Fixtures 1
MTTS 2130* CNC Milling and Turning 4
MTTS 2134* CNC Operations Theory 2
MTTS 2140* CAD/CAM II 2
Minnesota Transfer Curriculum Courses 3

Semester Four (16 credits)

ENGL 1422 Practical Writing (Goal 1) 3
PHYS 1407* Principles of Physics (Goal 3) 3
MTTS 2155 Capstone Project OR 1-6
MTTS 2190 Internship 4-6
Minnesota Transfer Curriculum Courses 6

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

CNC Technologies

Diploma (D186)

Technical Requirements 48
Total Credits 48

Program Description

In our Computer Numerical Controlled (CNC) Technologies Diploma you will learn how to use hand tools, power machinery, and computerized equipment. In addition, you will learn how to use lathes and mills. Our one-year diploma curriculum includes the use of computer-aided-drafting and design software. Instruction takes place in a well-equipped shop for a hands-on, practical experience.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Read and interpret a mechanical working drawing;
- Perform precision measurement, layout, drilling, sawing, turning, milling, and precision grinding safely;
- Perform shop calculations;
- Program, setup, and operate a computer numerical control (CNC) turning center and machining center;
- Anticipate, choose, and troubleshoot the proper tooling based on manufacturing requirements;
- Manufacture assemblies to specification; and
- Apply effective communication and interpersonal skills in the machining industry.

Career Opportunities

The machine shop technologist does precise creation and modification of metal parts. In this program, students learn how to use machines to make various parts for the repair, design, or manufacture of other products. Most jobs are in manufacturing settings and in a variety of industries, including aerospace, medical, and paper. Math, computer, and engineering skills are important in this field, but machinists also use a creative side to solve problems and make new designs. Machinists work with their hands to create and fix tools and machines and work on parts that are cast, formed, shaped, or molded. They also work on parts that are heat-treated, cut, or twisted. In addition, students can work on parts that are pressed, fused, stamped, or worked. A CLC graduate is well prepared for related career opportunities including machinists, tool and die makers, mold makers, maintenance machinists, machine setup lead, machine operator, quality control analyst, machine tool sales person, industrial repairer, plastics injection, and many other related positions.

Program Course Requirements

CMAE 1528	Career Success Skills **OR**	
CMAE 1529	Career Success Skills	1 cr
ENGL 1422	Practical Writing	3 cr
MATH 1500	Applied Mathematics	3 cr
MTTS 1110	Principles of Machine Operations I	2 cr
MTTS 1111*	Principles of Machine Operations II	2 cr
MTTS 1120	Machine Operations I	3 cr
MTTS 1121	Machine Operations II	3 cr
MTTS 1122*	Machine Operations III	3 cr
MTTS 1124	Introduction to Engineering Graphics	2 cr
MTTS 1130	Print Reading	2 cr
MTTS 1131*	Print Applications	2 cr
MTTS 1134*	CNC Operations	3 cr
MTTS 1135	CNC Programming and Process Planning	2 cr
MTTS 1140	CAD/CAM I	2 cr
MTTS 2110	Geometric Dimensioning and Tolerancing	1 cr
MTTS 2112	Metallurgy	1 cr
MTTS 2116*	Introduction to EDM	2 cr
MTTS 2118*	Jigs and Fixtures	1 cr
MTTS 2130*	CNC Milling and Turning	4 cr
MTTS 2134*	CNC Operations Theory	2 cr
MTTS 2140*	CAD/CAM II	2 cr
RAST 1109	Computers in Industry	2 cr

GRADUATION REQUIREMENT - 48 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (16 credits)

CMAE 1528	Career Success Skills **OR**	
CMAE 1529	Career Success Skills	1
MATH 1500	Applied Mathematics	3
MTTS 1110	Principles of Machine Operations I	2
MTTS 1120	Machine Operations I	3
MTTS 1121	Machine Operations II	3
MTTS 1130	Print Reading	2
RAST 1109	Computers in Industry	2

Semester Two (16 credits)

MTTS 1111*	Principles of Machine Operations II	2
MTTS 1122*	Machine Operations III	3
MTTS 1124	Introduction to Engineering Graphics	2
MTTS 1131*	Print Applications	2
MTTS 1134*	CNC Operations	3
MTTS 1135	CNC Programming and Process Planning	2
MTTS 1140	CAD/CAM I	2

Semester Three (16 credits)

ENGL 1422	Practical Writing (Goal 1)	3
MTTS 2110	Geometric Dimensioning and Tolerancing	1
MTTS 2112	Metallurgy	1
MTTS 2116*	Introduction to EDM	2
MTTS 2118*	Jigs and Fixtures	1
MTTS 2130*	CNC Milling and Turning	4
MTTS 2134*	CNC Operations Theory	2
MTTS 2140*	CAD/CAM II	2

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Machine Operations

Diploma (D184)

Technical Requirements 32
Total Credits 32

Program Description

The Machine Operations Diploma program at Central Lakes College provides a comprehensive foundation to get you started as a technician suited to work in any industrial plant where precision, efficiency, and safety are valued. You will learn skills in electronics, mechanical systems, and troubleshooting to become qualified to repair and maintain computerized equipment. Instruction takes place in a state-of-the art shop for a hands-on, practical experience. The diploma you earn from CLC will signify your competency is skills necessary for multiple career opportunities.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Select correct testing equipment for troubleshooting machine malfunctions;
- Use and understand preventive maintenance procedures;
- Use and understand predictive maintenance procedures;
- Troubleshoot complex electrical control circuits and devices, and;
- Troubleshoot complex mechanical systems.

Career Opportunities

Machine operators clean, oil, and maintain machine tools, in addition to repairing and constructing new parts for existing machinery. Skilled machine operators are needed to keep the complex industrial machinery of today's manufacturing facilities running smoothly. Their work keeps factories productive, ensuring the high quality of the final product and the safety of machine operators. The machine operator is often responsible for performing entry-level to complex troubleshooting and repair techniques on manufacturing equipment and electrical/electronic or mechanical systems. As a technician you will be responsible for analyzing, troubleshooting, maintaining, and repairing equipment. To advance in this career, machine operators must gain proficiency with basic mechanical/hydraulic and pneumatic concepts related to machine tools.

Program Course Requirements

CMAE 1528	Career Success Skills **OR**	
CMAE 1529	Career Success Skills	1 cr
MATH 1500	Applied Mathematics	3 cr
MTTS 1110	Principles of Machine Operations I	2 cr
MTTS 1111*	Principles of Machine Operations II	2 cr
MTTS 1120	Machine Operations I	3 cr
MTTS 1121	Machine Operations II	3 cr
MTTS 1122*	Machine Operations III	3 cr
MTTS 1124	Introduction to Engineering Graphics	2 cr
MTTS 1130	Print Reading	2 cr
MTTS 1131*	Print Applications	2 cr
MTTS 1134*	CNC Operations	3 cr
MTTS 1135	CNC Programming and Process Planning	2 cr
MTTS 1140	CAD/CAM I	2 cr
RAST 1109	Computers in Industry	2 cr

GRADUATION REQUIREMENT - 32 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (16 credits)

CMAE 1528	Career Success Skills **OR**	
CMAE 1529	Career Success Skills	1
MATH 1500	Applied Mathematics	3
MTTS 1110	Principles of Machine Operations I	2
MTTS 1120	Machine Operations I	3
MTTS 1121	Machine Operations II	3
MTTS 1130	Print Reading	2
RAST 1109	Computers in Industry	2

Semester Two (16 credits)

MTTS 1111*	Principles of Machine Operations II	2
MTTS 1122*	Machine Operations III	3
MTTS 1124	Introduction to Engineering Graphics	2
MTTS 1131*	Print Applications	2
MTTS 1134*	CNC Operations	3
MTTS 1135	CNC Programming and Process Planning	2
MTTS 1140	CAD/CAM I	2

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Marine Powersports Technology, A.A.S.

Associate of Applied Science Degree (A371)

Technical Requirements 54
Mn Transfer Curriculum 15
Total Credits 69

Program Description

The Marine and Powersports Technology Program is designed to provide the students with the knowledge and skills needed for the rapidly growing recreational and power equipment fields. Courses in the program cover all aspects of maintenance and repair, including machine overhauls, shop operation, set up, and delivery. Choose either the Associate in Applied Science (A.A.S.) or Diploma. Both options are two-year programs.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply safe work practices in a manner compatible with OSHA requirements and industry expectations;
- Demonstrate industry standard applications of selected tools and equipment for powersports engine maintenance, diagnostic and repair tools;
- Apply basic diagnostic and repair concepts to powersports engine, marine engine equipment power train and chassis systems;
- Apply preventative maintenance concepts to powersports engine equipment care and storage;
- Identify the functional relationships among small engine components and systems; and
- Use a variety of computer, Web and technical resources to find information, troubleshoot problems and prepare estimates.

Career Opportunities

Graduates of this program typically become employed at dealerships as service technicians. The most common types of dealerships include outdoor power equipment, snowmobile, marine, motorcycle, and all-terrain vehicle (ATV). After completing this program, students will be prepared for a variety of careers, including service technician, general manager, service manager, service writer, individual business owner, parts personnel, factory service representative, and parts manager.

Program Course Requirements

MAPS 1101 Basic Engines .....3 cr
MAPS 1103 Basic Engines Lab .....4 cr
MAPS 1106 Intro to Electronics .....2 cr
MAPS 1120 Lawn and Garden .....2 cr
MAPS 1130 Marine Outboard I .....4 cr
MAPS 1132* Marine Outboard II .....4 cr
MAPS 1134 Marine Lower Unit .....4 cr
MAPS 1136 Industry Certifications I .....2 cr
MAPS 1140 Snowmobile Systems and Lab .....4 cr
MAPS 2133* Advance Marine .....3 cr
MAPS 2134* Advance Marine and Personal Water .....3 cr
MAPS 2135* Machine Shop.....2 cr
MAPS 2136* Industry Certifications II .....2 cr
MAPS 2143* Diagnostic Troubleshooting .....3 cr
MAPS 2162* ATV Motorcycle Systems I .....4 cr
MAPS 2164* ATV Motorcycle Systems II .....4 cr
MAPS 2169* MAPS Tune Up .....3 cr
MAPS 1370 Open Lab .....1 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC).
Minnesota Transfer Curriculum courses .....15 cr

GRADUATION REQUIREMENT - 69 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One First Year (18 credits)

MAPS 1101 Basic Engines ..... 3 cr
MAPS 1103 Basic Engines Lab ..... 4 cr
MAPS 1106 Introduction to Electronics ..... 2 cr
MAPS 1120 Lawn and Garden ..... 2 cr
MAPS 1136 Industry Certifications I ..... 2 cr
Minnesota Transfer Curriculum ..... 5 cr

Semester Two First Year (18 credits)

MAPS 1130 Marine Outboard I ..... 4 cr
MAPS 1132* Marine Outboard II ..... 4 cr
MAPS 1134 Marine Lower Unit ..... 4 cr
MAPS 1140 Snowmobile Systems and Lab ..... 4 cr
Minnesota Transfer Curriculum ..... 2 cr

Semester Three Second Year (18 credits)

MAPS 2133* Advance Marine ..... 3 cr
MAPS 2134* Advance Marine and Personal Water ..... 3 cr
MAPS 2135* Machine Shop ..... 2 cr
MAPS 2136* Industry Certifications II ..... 2 cr
MAPS 2169* MAPS Tune Up ..... 3 cr
Minnesota Transfer Curriculum ..... 5 cr

Semester Four Second Year (15 credits)

MAPS 2143* Diagnostic Troubleshooting ..... 3 cr
MAPS 2162* ATV Motorcycle Systems I ..... 4 cr
MAPS 2164* ATV Motorcycle Systems II ..... 4 cr
MAPS 1370 Open Lab ..... 1 cr
Minnesota Transfer Curriculum ..... 3 cr

Transfer Opportunities

The Marine and Powersports Technology Program has an articulation agreement with Bemidji State University for transfer to its Industrial Technology Program.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Marine Powersports Technology

Diploma (D371)

Technical Requirements 59
Electives 5
Total Credits 64

Program Description

The Marine and Powersports Technology Program is designed to provide the students with the knowledge and skills needed for the rapidly growing recreational and power equipment fields. Courses in the program cover all aspects of maintenance and repair, including machine overhauls, shop operation, set up, and delivery. Choose either the Associate in Applied Science (A.A.S.) or Diploma. Both options are two-year programs.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply safe work practices in a manner compatible with OSHA requirements and industry expectations;
- Demonstrate industry standard applications of selected tools and equipment for powersports engine maintenance, diagnostic and repair tools;
- Apply basic diagnostic and repair concepts to powersports engine, marine engine equipment power train and chassis systems;
- Apply preventative maintenance concepts to powersports engine equipment care and storage;
- Identify the functional relationships among small engine components and systems; and
- Use a variety of computer, Web and technical resources to find information, troubleshoot problems and prepare estimates.

Career Opportunities

Graduates of this program typically become employed at dealerships as service technicians. The most common types of dealerships include outdoor power equipment, snowmobile, marine, motorcycle, and all-terrain vehicle (ATV). After completing this program, students will be prepared for a variety of careers, including service technician, general manager, service manager, individual business owner, parts personnel, factory service representative, and parts manager.

Program Course Requirements

CCST 1530	Employment Strategies **OR**	
COMP 1101	Computer Fundamentals	3 cr
MAPS 1101	Basic Engines	3 cr
MAPS 1103	Basic Engines Lab	4 cr
MAPS 1106	Intro to Electronics	2 cr
MAPS 1120	Lawn and Garden	2 cr
MAPS 1130	Marine Outboard I	4 cr
MAPS 1132*	Marine Outboard II	4 cr
MAPS 1134	Marine Lower Unit	4 cr
MAPS 1136	Industry Certifications I	2 cr
MAPS 1140	Snowmobile Systems and Lab	4 cr
MAPS 2133*	Advance Marine	3 cr
MAPS 2134*	Advance Marine and Personal Water	3 cr
MAPS 2135*	Machine Shop	2 cr
MAPS 2136*	Industry Certifications II	2 cr
MAPS 2143*	Diagnostic Troubleshooting	3 cr
MAPS 2162*	ATV Motorcycle Systems I	4 cr
MAPS 2164*	ATV Motorcycle Systems II	4 cr
MAPS 2169*	MAPS Tune Up	3 cr
MATH 1500	Applied Mathematics	3 cr
Electives		5 cr

GRADUATION REQUIREMENT - 64 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better.CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One First Year (16 credits)

MAPS 1101	Basic Engines	3 cr
MAPS 1103	Basic Engines Lab	4 cr
MAPS 1106	Introduction to Electronics	2 cr
MAPS 1120	Lawn and Garden	2 cr
MAPS 1136	Industry Certifications I	2 cr
MATH 1500	Applied Mathematics	3 cr

Semester Two First Year (16 credits)

MAPS 1130	Marine Outboard I	4 cr
MAPS 1132*	Marine Outboard II	4 cr
MAPS 1134	Marine Lower Unit	4 cr
MAPS 1140	Snowmobile Systems and Lab	4 cr

Semester Three Second Year (16 credits)

MAPS 2133*	Advance Marine	3 cr
MAPS 2134*	Advance Marine and Personal Water	3 cr
MAPS 2135*	Machine Shop	2 cr
MAPS 2136*	Industry Certifications II	2 cr
MAPS 2169*	MAPS Tune Up	3 cr
	Electives	3 cr

Semester Four Second Year (16 credits)

CCST 1530	Employment Strategies **OR**	
COMP 1101	Computer Fundamentals	3 cr
MAPS 2143*	Diagnostic Troubleshooting	3 cr
MAPS 2162*	ATV Motorcycle Systems I	4 cr
MAPS 2164*	ATV Motorcycle Systems II	4 cr
Electives		2 cr

Transfer Opportunities

The Marine and Powersports Technology Program has an articulation agreement with Bemidji State University for transfer to their Industrial Technology Program.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Small Outboard Motor Technician

Diploma (D372)

Technical Requirements 29
General Education 3
Total Credits 32

Program Description

Courses in the Marine and Powersports Technology Program are designed to provide students with the knowledge and skills needed for positions the rapidly growing recreational and outdoor power equipment industry. All aspects of maintenance and repair are taught, including machine overhauls, shop operation, set up, and delivery.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply safe work practices in a manner compatible with OSHA requirements and industry expectations;
- Demonstrate industry standard applications of selected tools and equipment for small outboard motors and lawn and garden engine maintenance, diagnostic and repair tools;
- Apply basic diagnostic and repair concepts to small outboard motors and lawn and garden equipment;
- Apply preventative maintenance concepts to small outboard motors and lawn and garden equipment care and storage;
- Identify the functional relationships among small engine components and systems; and
- Use a variety of computer, web and technical resources to find information, troubleshoot problems and prepare estimates.

Career Opportunities

After completing this program, students will be prepared to be a small outboard motor technician or a lawn and garden service technician. Graduates typically become employed as service technicians at dealerships, hardware stores, resorts, golf courses, or marinas.

Program Course Requirements

MAPS 1101	Basic Engines	3 cr
MAPS 1103	Basic Engines Lab	4 cr
MAPS 1106	Introduction to Electronics	2 cr
MAPS 1120	Lawn and Garden	2 cr
MAPS 1130	Marine Outboard I	4 cr
MAPS 1132*	Marine Outboard II	4 cr
MAPS 1134	Marine Lower Unit	4 cr
MAPS 1136	Industry Certifications I	2 cr
MAPS 1140	Snowmobile Systems and Lab	4 cr
MATH 1500	Applied Mathematics	3 cr

GRADUATION REQUIREMENT - 32 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (16 credits)

MAPS 1101	Basic Engines	3
MAPS 1103	Basic Engines Lab	4
MAPS 1106	Introduction to Electronics	2
MAPS 1120	Lawn and Garden	2
MAPS 1136	Industry Certifications I	2
MATH 1500	Applied Mathematics	3

Semester Two (16 credits)

MAPS 1130	Marine Outboard I	4
MAPS 1132*	Marine Outboard II	4
MAPS 1134	Marine Lower Unit	4
MAPS 1140	Snowmobile Systems and Lab	4

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Lawn & Garden Technician

Certificate (C371)

Technical Requirements 16
Total Credits 16

Program Description

Courses in the Marine and Powersports Technology Program are designed to provide students with the knowledge and skills needed for positions the rapidly growing recreational and outdoor power equipment industry. All aspects of maintenance and repair are taught, including machine overhauls, shop operation, set up, and delivery.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply safe work practices in a manner compatible with OSHA requirements and industry expectations;
- Demonstrate industry standard applications of selected tools and equipment for lawn and garden engine maintenance, diagnostic and repair tools;
- Apply basic diagnostic and repair concepts to lawn and garden equipment;
- Apply preventative maintenance concepts to lawn and garden equipment care and storage;
- Identify the functional relationships among small engine components and systems; and
- Use a variety of computer, web and technical resources to find information, troubleshoot problems and prepare estimates.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Course Requirements

MAPS 1101 Basic Engines .....3 cr
MAPS 1103 Basic Engines Lab .....4 cr
MAPS 1106 Introduction to Electronics.....2 cr
MAPS 1120 Lawn and Garden .....2 cr
MAPS 1136 Industry Certifications I .....2 cr
MATH 1500* Applied Mathematics .....3 cr

GRADUATION REQUIREMENT - 16 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (16 credits)

MAPS 1101 Basic Engines .....3 cr
MAPS 1103 Basic Engines Lab .....4 cr
MAPS 1106 Introduction to Electronics.....2 cr
MAPS 1120 Lawn and Garden .....2 cr
MAPS 1136 Industry Certifications I .....2 cr
MATH 1500 Applied Mathematics .....3 cr

Career Opportunities

After completing this program, students will be prepared to be a lawn and garden service technician. Graduates typically become employed as lawn and garden technicians at dealerships, hardware stores, or resorts and golf courses.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Medical Assistant, A.A.S.

Associate of Applied Science Degree (A295)

Technical Requirements 36
Mn Transfer Curriculum..... 15
Electives 9
Total Credits 60

Program Description

The Medical Assistant Program is designed to prepare students for career opportunities in the rapidly growing, high-demand field of health care support. Instruction is focused to enable graduates to perform clinical, laboratory, and administrative tasks to keep the offices of physicians, podiatrists, chiropractors, and other health care practitioners running smoothly. The general education credits allow students the opportunity to obtain an AAS Degree. By doing so, students become more well-rounded in their knowledge of the world around them when interacting with patients, families, providers and healthcare team members.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Interact with patients, families, providers and healthcare team members in a respectful and caring manner;
- Apply administrative business and office procedures and implement medical documentation systems;
- Assist providers and healthcare team members in clinical procedures related to examination and treatment;
- Effectively use quality assurance requirements in performing clinical and laboratory procedures;
- Perform common diagnostic procedures under a licensed healthcare provider ensuring patient comfort and safety; and
- Demonstrate professional behaviors and attitudes consistent with delivery of safe, ethical, legal and compassionate patient care.

Program Admissions Requirements

American Heart Association Health Care Provider (CPR) certification is required before working with patients. Admission start date is Fall semester. A high school diploma or GED is required. Please contact the Admissions Department on the Brainerd or Staples campus for information or to apply to the program.

Program Accreditation

The Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on the recommendation of the Medical Assisting Education Review Board (MAERB). In addition, the program is also accredited by the American Medical Technologists.

Program Course Requirements

HINS 1150	Introduction to Diagnosis Procedure Coding	3 cr
MEDA 1110*	Clinical Procedure I	3 cr
MEDA 1115*	Clinical Procedures II	3 cr
MEDA 1120	Laboratory Techniques I	3 cr
MEDA 1125*	Laboratory Techniques II	3 cr
MEDA 1128	Medical Terminology **OR**	
PNUR 1138	Medical Terminology	1 cr
MEDA 1130	Ethics and Issues	2 cr
MEDA 1132*	Phlebotomy	2 cr
MEDA 1135	Administrative Procedures I	3 cr
MEDA 1137*	Administrative Procedures II	2 cr
MEDA 1141	Disease Conditions	2 cr
MEDA 1142	Pharmacology	2 cr
MEDA 2150*	Medical Assistant Internship	5 cr
PNUR 1130	Life Span **OR**	1 cr
PSYC 2431	Human Development (Goal 5)	3 cr
PNUR 1140	Medication Calculations	1 cr
Electives		9 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include within the MnTC component the following courses:

AMSL 1410	American Sign Language (Goal 8) **OR**	
SPAN 1401	Beginning Spanish (Goal 8)	4 cr
BIOL 1404	Human Biology (Goal 3)	3 cr
COMM 2420	Intercultural Communication (Goals 1,7)	3 cr
ENGL 1410	Composition I (Goal 1) OR	4 cr
ENGL 1422	Practical Writing (Goals 1,2)	3 cr
Additional Minnesota Transfer Curriculum courses		1-2 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One First Year (19 credits)

BIOL 1404	Human Biology (Goal 3)	3 cr
MEDA 1110*	Clinical Procedure I	3 cr
MEDA 1120	Laboratory Techniques I	3 cr
MEDA 1128	Medical Terminology **OR**	
PNUR 1138	Medical Terminology	1 cr
MEDA 1130	Ethics and Issues	2 cr
MEDA 1132*	Phlebotomy	2 cr
MEDA 1135	Administrative Procedures I	3 cr
PNUR 1130	Life Span **OR**	1 cr
PSYC 2431	Human Development (Goal 5)	3 cr
PNUR 1140	Medication Calculations	1 cr

Semester Two First Year (15 credits)

HINS 1150	Introduction to Diagnosis Procedure Coding	3 cr
MEDA 1115*	Clinical Procedures II	3 cr
MEDA 1125*	Laboratory Techniques II	3 cr
MEDA 1137*	Administrative Procedures II	2 cr
MEDA 1141	Disease Conditions	2 cr
MEDA 1142	Pharmacology	2 cr

Semester Three Summer First Year (5 credits)

MEDA 2150*	Medical Assistant Internship	5 cr

Semester Four Second Year (10 credits)

Minnesota Transfer Curriculum and Electives ..... 10 cr

Semester Five Second Year (11 credits)

Minnesota Transfer Curriculum and Electives ..... 11 cr

Career Opportunities

According to the Department of Employment and Economic Development, the need for health care support workers to meet both short-term and long-term workforce needs is high. Medical assistants are multi-skilled individuals who are able to competently perform clinical and laboratory duties including collecting medical histories, taking and recording vital signs, explaining treatment procedures, preparing patients for examinations and x-rays, administering medications, removing sutures, changing dressings, sterilizing medical instruments, preparing examining room equipment and instruments, assisting the physician during examinations, preparing laboratory specimens, drawing blood, and performing basic laboratory tests. They may also perform duties that include answering phones, greeting patients, scheduling appointments, as well as other administrative duties. Upon successful completion of all coursework and a 225 hour clinical internship, students will prepare to sit for the national AAMA certification exam to become a Certified Medical Assistant (CMA) AAMA, or to sit for the national AMT certification exam to become a Registered Medical Assistant (RMA).

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Medical Assistant

Diploma (D295)

Technical Requirements 39
Total Credits 39

Program Description

The Medical Assistant Program is designed to prepare students for career opportunities in the rapidly growing, high-demand field of health care support. Instruction is focused to enable graduates to perform clinical, laboratory, and administrative tasks to keep the offices of physicians, podiatrists, chiropractors, and other health care practitioners running smoothly.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Interact with patients, families, providers and healthcare team members in a respectful and caring manner;
- Apply administrative business and office procedures and implement medical documentation systems;
- Assist providers and healthcare team members in clinical procedures related to examination and treatment;
- Effectively use quality assurance requirements in performing clinical and laboratory procedures;
- Perform common diagnostic procedures under a licensed healthcare provider ensuring patient comfort and safety; and
- Demonstrate professional behaviors and attitudes consistent with delivery of safe, ethical, legal and compassionate patient care.

Program Admissions Requirements

American Heart Association Health Care Provider (CPR) certification is required before working with patients. Admission start date is Fall semester. A high school diploma or GED is required. Please contact the Admissions Department on the Brainerd or Staples campus for information or to apply to the program.

Program Accreditation

The Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on the recommendation of the Medical Assisting Education Review Board (MAERB). In addition, the program is also accredited by the American Medical Technologists.

Program Course Requirements

BIOL 1404	Human Biology (Goal 3)	3 cr
HINS 1150	Introduction to Diagnosis Procedure Coding	3 cr
MEDA 1110*	Clinical Procedure I	3 cr
MEDA 1115*	Clinical Procedures II	3 cr
MEDA 1120	Laboratory Techniques I	3 cr
MEDA 1125*	Laboratory Techniques II	3 cr
MEDA 1128	Medical Terminology **OR**	
PNUR 1138	Medical Terminology	1 cr
MEDA 1130	Ethics and Issues	2 cr
MEDA 1132*	Phlebotomy	2 cr
MEDA 1135	Administrative Procedures I	3 cr
MEDA 1137*	Administrative Procedures II	2 cr
MEDA 1141	Disease Conditions	2 cr
MEDA 1142	Pharmacology	2 cr
MEDA 2150*	Medical Assistant Internship	5 cr
PNUR 1130	Life Span **OR**	1 cr
PSYC 2431	Human Development	3 cr
PNUR 1140	Medication Calculations	1 cr

GRADUATION REQUIREMENT - 39 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One First Year (19 credits)

BIOL 1404	Human Biology (Goal 3)	3 cr
MEDA 1110*	Clinical Procedure I	3 cr
MEDA 1120	Laboratory Techniques I	3 cr
MEDA 1128	Medical Terminology **OR**	
PNUR 1138	Medical Terminology	1 cr
MEDA 1130	Ethics and Issues	2 cr
MEDA 1132*	Phlebotomy	2 cr
MEDA 1135	Administrative Procedures I	3 cr
PNUR 1130	Life Span **OR**	1 cr
PSYC 2431	Human Development	3 cr
PNUR 1140	Medication Calculations	1 cr

Semester Two First Year (15 credits)

HINS 1150	Introduction to Diagnosis Procedure Coding	3 cr
MEDA 1115*	Clinical Procedures II	3 cr
MEDA 1125*	Laboratory Techniques II	3 cr
MEDA 1137*	Administrative Procedures II	2 cr
MEDA 1141	Disease Conditions	2 cr
MEDA 1142	Pharmacology	2 cr

Semester Three Summer First Year (5 credits)

MEDA 2150*	Medical Assistant Internship	5 cr

Career Opportunities

According to the Department of Employment and Economic Development, the need for health care support workers to meet both short-term and long-term workforce needs is high. Medical assistants are multi-skilled individuals who are able to competently perform clinical and laboratory duties including collecting medical histories, taking and recording vital signs, explaining treatment procedures, preparing patients for examinations and x-rays, administering medications, removing sutures, changing dressings, sterilizing medical instruments, preparing examining room equipment and instruments, assisting the physician during examinations, preparing laboratory specimens, drawing blood, and performing basic laboratory tests. They may also perform duties that include answering phones, greeting patients, scheduling appointments, as well as other administrative duties. Upon successful completion of all coursework and a 225 hour clinical internship, students will prepare to sit for the national AAMA certification exam to become a Certified Medical Assistant (CMA) AAMA, or to sit for the national AMT certification exam to become a Registered Medical Assistant (RMA).

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Phlebotomy Technician

Certificate (C295)

Technical Requirements 18
Total Credits 18

Program Description

The Phlebotomy Technician Certificate is designed to prepare students for career opportunities in the rapidly growing, high-demand field of health care support. After receiving the detailed, hands-on instruction, you'll be able to use quality assurance requirements in performing phlebotomy and laboratory procedures. What's more, you'll learn how to interact with patients, families, physicians and healthcare teams, all while demonstrating professional behavior to deliver safe, ethical, legal and compassionate patient care. You'll have experience in medical laboratory protocol, which will help with the transition into the work world. This certificate enables students to complete the academic requirements for a phlebotomy technician in one semester and complete the internship requirements following instruction.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate professional behaviors and attitudes consistent with delivery of safe, ethical, legal and compassionate patient care.
- Effectively use quality assurance requirements in obtaining patient blood specimens by venipuncture or micro-techniques.
- Interact with patients, families, providers, and other healthcare team members in a respectful and caring manner.

Program Admissions Requirements

American Heart Association Health Care Provider (CPR) certification is required before working with patients. Admission start date is Fall semester. A high school diploma or GED is required. Please contact the Admissions Department on the Brainerd or Staples campus for information or to apply to the program.

Career Opportunities

A Phlebotomy Technician (Phlebotomist) is an integral member of the medical laboratory team whose primary function is the collection of blood samples from patients via venipuncture or micro-techniques. The Phlebotomy Technician facilitates the collection and transportation of laboratory specimens, and is often the patient's only contact with the medical laboratory. The need to assure quality and patient safety mandates strict professional behavior and standards of practice for Phlebotomists. Upon successful completion of all coursework and a 135 hour internship, students will be prepared to sit for the Certified Phlebotomy Technician national certification exam.

Program Course Requirements

BIOL 1404	Human Biology (Goal 3)	3 cr
ENGL 1422	Practical Writing (Goals 1,2) **OR**	3 cr
ENGL 1410	Composition I	4 cr
MEDA 1120	Laboratory Techniques I	3 cr
MEDA 1128	Medical Terminology **OR**	
PNUR 1138	Medical Terminology	1 cr
MEDA 1130	Ethics and Issues	2 cr
MEDA 1132*	Phlebotomy	2 cr
MEDA 1134	Phlebotomy Technician Internship	3 cr
PNUR 1130	Life Span **OR**	1 cr
PSYC 2431	Human Development (Goal 5)	3 cr

GRADUATION REQUIREMENT - 18 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (15 credits)

BIOL1404	Human Biology (Goal 3)	3 cr
ENGL 1422	Practical Writing (Goals 1,2) **OR**	3 cr
ENGL 1410	Composition I	4 cr
MEDA 1120	Laboratory Techniques I	3 cr
MEDA 1128	Medical Terminology **OR**	
PNUR 1138	Medical Terminology	1 cr
MEDA 1130	Ethics and Issues	2 cr
MEDA 1132*	Phlebotomy	2 cr
PNUR 1130	Life Span **OR**	1 cr
PSYC 2431	Human Development	3 cr

Semester Two (3 credits)

MEDA 1134	Phlebotomy Technician Internship	3 cr

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Natural Resource Technology, A.A.S.

Associate of Applied Science Degree (A260)

Technical Requirements 48
MN Transfer Curriculum 15
Total Credits 63

Program Description

For more than fifty years, the CLC Natural Resources Program has been providing students with a well-rounded background in natural resources, preparing them for work in a variety of fields. Courses in the natural resources program at Central Lakes College include a strong outdoor laboratory component, reinforcing classroom learning through application of these skills and knowledge in the field. Many of the first-year courses are blocked together to allow additional time for outdoor laboratories and opportunities to work on multidiscipline projects. Students also have the opportunity to experience additional extracurricular opportunities through paid summer internships offered by a variety of natural resources agencies, and participation in the Natural Resources Club that provides students with outdoor-based activities throughout the year, such as radio-tracking collared animals, administering deer check stations, and hosting interpretive programs. The relatively small size of the Natural Resource Program allows students the opportunity to know their instructors personally and to develop friendships with other students that last a lifetime.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate field identification of regionally important plants, mammals, birds and fish and their communities;
- Use a broad range of technological tools to research, document, map, measure, record and analyze data relevant to natural resources;
- Interpret how ecological relationships influence plants, mammals, birds and fish distribution, succession and biodiversity in ecosystems;
- Analyze land characteristics and create land management plans;
- Communicate in oral and written forms with supervisors, peers, area visitors and natural resource agencies;
- Navigate and safely function in an outdoor workplace.

Program Course Requirements

NATR 1112	Land Measurement	3 cr
NATR 1115	Plant Taxonomy	2 cr
NATR 1120	Dendrology	3 cr
NATR 1125	Ichthyology	3 cr
NATR 1130	Mammalogy	3 cr
NATR 1135	Ornithology	3 cr
NATR 1140	Limnology	3 cr
NATR 1200	Introduction to Natural Resources	3 cr
NATR 1280	Introduction to GPS and GIS (Arc)	2 cr
NATR 2110	Herpetology	2 cr
NATR 2120*	Wetland Ecology	3 cr
NATR 2130*	Wildlife Management	3 cr
NATR 2140*	Fisheries Management	3 cr
NATR 2155	Soil Science	3 cr
NATR 2161*	Ecosystem Management	2 cr
NATR 2170	Advanced GPS and GIS	2 cr
NATR 2201	Introduction to Parks and Interpretation	2 cr
NATR 2235*	Silviculture and Forest Management	3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include within the MnTC component the following courses:

BIOL 2415	General Ecology (Goals 3,10)	4 cr
COMM 1410	Intro to Communication Studies (Goal 1) **OR**	
COMM 1420	Interpersonal Communication (Goal 1) **OR**	
COMM 1430	Public Speaking (Goals 1 and 2) **OR**	
COMM 2420	Intercultural Communication (Goals 1,7)	3 cr
ENGL 1410	Composition I (Goal 1)	4 cr
ENGL 1411	Composition II (Goal 1)	4 cr

GRADUATION REQUIREMENT - 63 CREDITS

**Denotes Prerequisites*

Transfer Opportunities

The Central Lakes College Natural Resources Program offers an affordable alternative to a four-year institution. Through formal agreements, graduates of the program have the opportunity to transfer to Bemidji State University, the University of Wisconsin at Stevens Point, WI and the University of Minnesota at Crookston, MN, to complete baccalaureate degrees.

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Semester Course Requirements

Semester One First Year (12 credits)

NATR 1115	Plant Taxonomy	2 cr
NATR 1120	Dendrology	3 cr
NATR 1200	Introduction to Natural Resources	3 cr
NATR 1280	Introduction to GPS and GIS (Arc)	2 cr
NATR 2110	Herpetology	2 cr

Semester Two First Year (18 credits)

BIOL 2415	General Ecology	4 cr
NATR 1125	Ichthyology	3 cr
NATR 1130	Mammalogy	3 cr
NATR 1135	Ornithology	3 cr
NATR 1140	Limnology	3 cr
NATR 2170	Advanced GPS and GIS	2 cr

Semester Three Second Year (19 credits)

NATR 1112	Land Measurement	3 cr
NATR 2120*	Wetland Ecology	3 cr
NATR 2130*	Wildlife Management	3 cr
NATR 2155	Soil Science	3 cr
Minnesota Transfer Curriculum		7 cr

Semester Four Second Year (14 credits)

NATR 2140*	Fisheries Management	3 cr
NATR 2161*	Ecosystem Management	2 cr
NATR 2201	Introduction to Parks and Interpretation	2 cr
NATR 2235*	Silviculture and Forest Management	3 cr
Minnesota Transfer Curriculum		4 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Career Opportunities

People in the natural resources work with environmental systems and human needs to manage a variety of resources in a sustainable fashion. Natural resources professionals regularly deal with issues such as biodiversity, economics, population trends, and the future quality of human life. The best opportunities for full-time work will require a bachelor’s degree from a four-year university in one of the natural resource disciplines or from a more holistic natural resource management degree. Some agencies (e.g., MN DNR Forestry) are beginning to hire students with two-year degrees for permanent, full-time work. Potential careers include forestry technician, wildlife manager, fisheries manager, fisheries technician, parks manager, park naturalist, hydrologist, soils scientist, and botanist.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Natural Resource Law Enforcement, A.A.S.

Associate of Applied Science Degree (A261)

Technical Requirements 55
MN Transfer Curriculum 17
Total Credits 72

Program Description

Get a hands-on learning experience outside of the classroom walls with weekly fieldwork in the woods. This two-year program has produced many successful conservation officers who work throughout the Midwest and inside the federal government. A fleet of new state-of-the-art squad cars gives students a driver's seat view into law enforcement. Because of a close partnership between area law enforcement and the college, students have a wide selection of choices for internships. With this Natural Resource Law Enforcement A.A.S Degree, you can be a conservation officer or hold nearly any other law enforcement position.

Program Course Requirements

CRJU 1101	Criminal Justice	3 cr
CRJU 1104	Juvenile Justice	3 cr
CRJU 2101**	Criminal Law	3 cr
CRJU 2102*	Criminal Procedures	4 cr
CRJU 2108	Criminal Investigations	3 cr
CRJU 2140	Law Enforcement Behavioral Science	3 cr
NATR 1106	Intro to Nat Resources Law Enforcement	2 cr
NATR 1125	Ichthyology	3 cr
NATR 1130	Mammalogy	3 cr
NATR 1135	Ornithology	3 cr
NATR 1360	Animal Behavior	3 cr
NATR 2110	Herpetology	2 cr

Students must select one of the following pathways:

Professional Peach Officer License Pathway

CRJU 1112	Police and the Community	3 cr
CRJU 2106**	Fitness for Law Enforcement	2 cr
CRJU 2114**	Traffic Law	3 cr
CRJU 2124	General Evidence Identification Prep	4 cr
CRJU 2160*	Use of Force	2 cr
CRJU 2162*	Firearms	3 cr
CRJU 2164*	Patrol Practicals	5 cr
CRJU 2166*	Tactical Communications/Relations	2 cr

Non-Licensure Pathway

NATR 1112	Land Measurement	3
NATR 1120	Dendrology	3
NATR 1140	Limnology	3
NATR 1200	Introduction to Natural Resources	3 cr
NATR 1280	Introduction to GPS & GIS (Arc View)	2 cr
NATR 2130*	Wildlife Management	3 cr
NATR 2140*	Fisheries Management	3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following courses:

AMSL 2420	Deaf Culture (Goals 6,7) **OR**	
SPAN 2420	Many Faces of Mexico (Goals 6,8)	3 cr
BIOL 2415	General Ecology (Goals 3,10)	4 cr
ENGL 1410	Composition I (Goal 1)	4 cr
SOCL 2405	Criminology (Goal 5)	3 cr
SOCL 2481	Race, Ethnicity, Oppression (Goals 5,7)	3 cr
ENGL 1410	Composition I (Goal 1)	4 cr
SOCL 2405	Criminology (Goal 5)	3 cr
SOCL 2481	Race, Ethnicity and Oppression (Goals 5,7)	3 cr

GRADUATION REQUIREMENT - 72 CREDITS

**Denotes Prerequisites*

*** These courses must be completed prior to SKILLS.*

****Total program credits for students pursuing the Professional Peace Officer Pathway is 76 credits.*

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate field identification of regionally important mammals, birds and fish and their communities;
- Use a broad range of technological tools to research, document, map, measure, record and analyze data relevant to natural resources;
- Navigate and safely function in an outdoor workplace;
- Demonstrate knowledge of structure, process and relationships between law enforcement, the courts and correctional systems;
- Apply tactical skills, weapon safety, defense and arrest tactics, vehicle operation, crisis management and force options;
- Process crime scenes from preliminary stage through disposition;
- Function in a multicultural society as a mature, adaptable citizen, while meeting the needs and challenges of clients and communities;

- Interpret and apply theory, law, policy and practice as it relates to juvenile delinquency and deviant behavior;
- Demonstrate an understanding of the roles of the legislative, judicial and executive branches and how they relate to criminal law;
- Apply knowledge of criminal law, constitutional law and Minnesota traffic code;
- Demonstrate strong and effective written and oral communication skills; and
- Understand the importance of ethics and ethical behavior in law enforcement.

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Program Admissions Requirements

- Students must complete and pass a background check prior to being officially admitted into the program. This background check must be completed prior to the first day of classes.
- Students must also complete the Minnesota Multiphasic Personality Inventory (MMPI) with a psychologist approved by the Program Coordinator prior to admission into the program.
- Students must have completed, or be concurrently enrolled in, an Associate in Arts, Bachelors, or Criminal Justice AAS Degree from an accredited institution for admission into this program.
- Student must be able to complete the skills portion of the program to become licensed. This involves several real-life crime scene situations, firearms and physical proficiency, and law enforcement procedural practices.

Please see the Criminal Justice Coordinator for further information.

Career Opportunities

Students in the Natural Resources Law Enforcement Program learn skills that lead to becoming a conservation officer. Conservation officers work with fish and wildlife agencies, state parks, trails, forests, waters and wetlands, as well as work in educational activities within and throughout Minnesota. Conservation officers often work from 4x4 patrol vehicles, snowmobiles, ATV, and various watercrafts. The selection process for being a conservation officer in Minnesota includes a written exam, division interview, background investigation, functional capacity exam, psychological assessment and a medical evaluation. In addition, conservation officers must be a United States Citizen, possess a valid Minnesota driver's license, have no felony convictions, have the ability to swim and possess a license or be eligible for licensing as a Minnesota peace officer at the time of hire.

Transfer Opportunities

Central Lakes College has an Articulation Agreement with Bemidji State University for transfer of Criminal Justice courses. Other colleges and universities conduct a student-by-student evaluation regarding transfer of courses and degree. Please see an advisor for further information.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College;
4. Courses required for Minnesota P.O.S.T. licensing must be completed within three (3) years of starting the certificate;
5. Students must have a valid Emergency Medical Responder certification (or higher) at the time of the Post Board Exam.

Central Lakes College, Brainerd Campus 2020-2021

Wildlife Tourism

Certificate (C260)

Technical Requirements 19
Total Credits 19

Program Description

The Central Lakes College Natural Resources Program provides students a well-rounded background in natural resources, preparing them for work in a variety of fields including wildlife and fisheries management, forestry, water resources, or parks and interpretation. The natural resources core courses include a strong outdoor laboratory component which allows students to reinforce classroom learning by applying it in environmental settings.

The outdoor focus, a cornerstone of the program, also prepares students to work safely and effectively in the field, skills critically important to potential employers. The relatively small size of the Natural Resources Program allows students full access to their instructors and to get to know other students and forge life-long friendships.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate field identification of regionally important plants, mammals, birds and fish and their communities;
- Use a broad range of technological tools to research, document, map, measure, record and analyze data relevant to natural resources;
- Interpret how ecological relationships influence plants, mammals, birds and fish distribution, succession and biodiversity in ecosystems;
- Analyze land characteristics and create land management plans;
- Communicate in oral and written forms with supervisors, peers, area visitors and natural resource agencies;
- Navigate and safely function in an outdoor workplace.

Career Opportunities

People in the natural resource field often become involved with issues like biodiversity, environmental pollution, endangered species, and the future quality of human life. To prepare for this field, students will gain the skills needed for assessing, implementing and evaluating land and water practices as part of an integrated wildlife program. Graduates in natural resources use their knowledge and develop skills in forestry, fisheries, wildlife, and parks and recreation. They have learned the identification of organisms, methods for collecting data, and resource management principles.

Program Course Requirements

NATR 1130	Mammalogy	3 cr
NATR 1135	Ornithology	3 cr
NATR 1360	Animal Behavior	3 cr
NATR 2110	Herpetology	2 cr
NATR 2130	Wildlife Management	3 cr
NATR 2201*	Introduction to Parks and Interpretation	2 cr
COMM 1410	Introduction to Communication **OR**	
COMM 1420	Interpersonal Communications **OR**	
COMM 1430	Public Speaking	3 cr

GRADUATION REQUIREMENT - 19 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual Semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: Cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: Cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Nursing A.S.

Associate of Science Degree (A301) Traditional

Prerequisites..... 12
Technical Requirements 21
MN Transfer Curriculum 31
Total Credits 64

Program Description

The Associate Degree in Nursing (A.S.) at Central Lakes College is a traditional nursing program designed to educate and prepare individuals to take the National Council Licensure E amination for Registered Nurses. The program is four semesters long or two academic school years.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Client Centered Care (NLN Human Flourishing) - The Associate Degree Nursing graduate advocates for individual clients in providing compassionate and culturally competent care through therapeutic communication and holistic assessments based on respect for clients preferences, values, and needs.
- Nursing udgment - The Associate Degree Nursing graduate applies the nursing process, evidence based decision making, and prioritization to develop a plan of care that ensures safe, quality treatment and health promotion for clients, families, and the community.
- Professional Identity - The Associate Degree Nursing graduate practices professional nursing in an ethical and legal manner, including case management of clients, which demonstrates leadership, teamwork, delegation, collaboration, and life-long learning.
- Quality Improvement (NLN Spirit of In uiry) - The Associate Degree Nursing graduate contributes to continuous quality improvement by developing policies and procedures that incorporate evidence based practice while effectively using resources and technology to achieve optimal client outcomes.

Transfer Opportunities

roader career opportunities are available for RNs with a achelor s or Master s Degree in Nursing. Contact an advisor for assistance with transfer information for baccalaureate nursing programs at other colleges. Admission requirements and course equivalencies may vary. This program has articulation agreements with emidji State University, Metro State University, Minnesota State University - Mankato, Minnesota State University - Moorhead, St. Cloud State University, and inona State University.

Program Course Requirements

IOL 2457	Microbiology (Goal 3)	4 cr
IOL 2467	Anatomy Physiology I (Goal 3)	4 cr
IOL 2468	Anatomy Physiology II (Goal 3)	4 cr
CHEM 1407	Life Science Chemistry (Goal 3)	4 cr
ENGL 1410	Composition I (Goal 1)	4 cr
ENGL 1411	Composition II (Goal 1)	4 cr
NURS 1540	Professional Nursing Fundamentals	3 cr
NURS 1541	Professional Nursing Fundamentals Lab	2 cr
NURS 1542	Medication Administration Concepts	1 cr
NURS 1544	Professional Nursing Concepts I	4 cr
NURS 1545	Professional Nursing Practicum I	2 cr
NURS 2540	Professional Nursing Concepts II	6 cr
NURS 2541	Professional Nursing Practicum II	3 cr
NURS 2542	Advanced Skills for the Professional Nurse	1 cr
NURS 2545	Professional Nursing Concepts III	6 cr
NURS 2546	Professional Nursing Practicum III	3 cr
NURS 2547	Professional Nursing Leadership	2 cr
PHIL 2422	Medical Ethics (Goals 6,9)	3 cr
PS C 2421	General Psychology (Goals 2,5)	4 cr

GRADUATION REQUIREMENT - 64 CREDITS

**Denotes Prerequisites*

***C M 1 10, 1 1 , 1 or 1 , 7 or 7 may be substituted for C M 1 07.*

**** RS may be substituted for RS 1 .*

Career Opportunities

Registered Nurses (RNs) make up the largest number of health care professionals in the United States. Currently there are 2.6 million RN jobs in the nation with an e pected job growth rate of 22 , accounting for a more rapid growth rate than the national average for all other professions. RNs work to promote health, prevent disease, and help clients cope with illness. They are advocates and health educators for clients, families, and communities.

hen providing direct client care they assess and record symptoms, responses, and progress of clients; assist physicians during e aminations, treatments, and surgeries; administer medications; and assist in convalescence and rehabilitation. RNs develop and manage nursing care plans and must possess critical thinking and problem solving skills.

Semester Course Requirements

Semester One – First ear (18 credits)
CHEM 1407 Life Science Chemistry (Goal 3) ..... 4 cr
ENGL 1410 Composition I (Goal 1) ..... 4 cr
NURS 1540 Professional Nursing Fundamentals ..... 3 cr
NURS 1541 Professional Nursing Fundamentals Lab .... 2 cr
NURS 1542 Medication Administration Concepts ..... 1 cr
PS C 2421 General Psychology (Goals 2 and 5) ..... 4 cr

Semester Two - First ear (17 credits)
IOL 2467 Anatomy Physiology I (Goal 3) ..... 4 cr
ENGL 1411 Composition II (Goal 1) ..... 4 cr
NURS 1544 Professional Nursing Concepts I ..... 4 cr
NURS 1545 Professional Nursing Practicum I ..... 2 cr
PHIL 2422 Medical Ethics (Goals 6 and 9) ..... 3 cr

Semester Three - Second ear (14 credits)
IOL 2468 Anatomy Physiology II (Goal 3) ..... 4 cr
NURS 2540 Professional Nursing Concepts II ..... 6 cr
NURS 2541 Professional Nursing Practicum II ..... 3 cr
NURS 2542 Advanced Skills for the Professional Nurse ..... 1 cr

Semester Four - Second ear (15 credits)
IOL 2457 Microbiology (Goal 3) ..... 4 cr
NURS 2545 Professional Nursing Concepts III ..... 6 cr
NURS 2546 Professional Nursing Practicum III ..... 3 cr
NURS 2547 Professional Nursing Leadership ..... 2 cr

***C M 1 10, 1 1 , 1 or 1 , 7 or 7 may be substituted for C M 1 07.*
**** RS may be substituted for RS 1 .*

Program Admissions Requirements

- NSGA 1110 Nursing Assistant Course, OR 75 hour Minnesota Department of Health Nursing Assistant, OR active on the MN Registry of Nursing Assistants.
- This program has a special application process that includes completion of a CLC application and the College Entrance Test (CET). Traditional nursing application must be completed along with the TEAS Test.
- Students must apply each semester that they are seeking acceptance to the AD Nursing Program. Applications are accepted on an ongoing basis. First review of applicants will be completed with a priority deadline of February 1st for Fall start and with a priority deadlines of uly 1st for Spring start. Applicants will continue to be reviewed and accepted up until the start of the semester if space is available in the program.
- Any person who has direct contact with patients and residents at health care facilities licensed by the Minnesota Department of Health must have a criminal background check completed. Results of the study are to be on file in the Department of Nursing before students begin their clinical e periences. Any student who does not pass the criminal background check will not be permitted to participate in clinical e periences, thereby rendering the individual ineligible to progress in the AD Nursing Program.
- Drug testing is required.
- Immunization documentation is required.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, clinical courses may require students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement students must complete 25 of their credits at Central Lakes College;
3. Students must achieve a grade of - or better in all Nursing (NURS) courses;
4. Students must achieve a grade of C or better and a cumulative GPA of 2.75 or higher in the following courses IOL 2457, IOL 2467, IOL 2468, CHEM 1407, ENGL 1410, ENGL 1411, PHIL 2422, and PS C 2421.

Program Accreditation

The CLC Associate Degree in Nursing Program is accredited by the National League for Nursing Commission for Nursing Education Accreditation (NLN CNEA). The most recent accreditation was affirmed in une, 2019.

Central Lakes College, Brainerd Campus 2020-2021

Nursing A.S.

Associate of Science Degree (A300) Advanced Standing

Prerequisites..... 12
Technical Requirements 21
MN Transfer Curriculum 31
Total Credits 64

Program Description

The Advance Standing Associates Degree (AD) Nursing Program at Central Lakes College is designed to educate and prepare qualified Licensed Practical Nurses (LPNs) to take the National Council Licensure E amination for Registered Nurses. The program is two semesters long.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Client Centered Care (NLN Human Flourishing) - The Associate Degree Nursing graduate advocates for individual clients in providing compassionate and culturally competent care through therapeutic communication and holistic assessments based on respect for clients preferences, values, and needs.
- Nursing udgment - The Associate Degree Nursing graduate applies the nursing process, evidence based decision making, and prioritization to develop a plan of care that ensures safe, quality treatment and health promotion for clients, families, and the community.
- Professional Identity - The Associate Degree Nursing graduate practices professional nursing in an ethical and legal manner, including case management of clients, which demonstrates leadership, teamwork, delegation, collaboration, and life-long learning.
- Quality Improvement (NLN Spirit of In uiry) - The Associate Degree Nursing graduate contributes to continuous quality improvement by developing policies and procedures that incorporate evidence based practice while effectively using resources and technology to achieve optimal client outcomes.

Transfer Opportunities

roader career opportunities are available for RNs with a achelor s or Master s Degree in Nursing. Contact an advisor for assistance with transfer information for baccalaureate nursing programs at other colleges. Admission requirements and course equivalencies may vary. This program has articulation agreements with emidji State University, Metro State University, Minnesota State University - Mankato, Minnesota State University - Moorhead, St. Cloud State University, and inona State University.

Program Course Requirements

Successful completion of a Practical Nursing Program ....8 cr

IOL 2457	Microbiology (Goal 3)	4 cr
IOL 2467	Anatomy Physiology I (Goal 3)	4 cr
IOL 2468	Anatomy Physiology II (Goal 3)	4 cr
CHEM 1407	Life Science Chemistry (Goal 3)	4 cr
ENGL 1410	Composition I (Goal 1)	4 cr
ENGL 1411	Composition II (Goal 1)	4 cr
NURS 1547	Professional Nursing Role Transition	4 cr
NURS 2540	Professional Nursing Concepts II	6 cr
NURS 2541	Professional Nursing Practicum II	3 cr
NURS 2542	Advanced Skills for the Professional Nurse	1 cr
NURS 2545	Professional Nursing Concepts III	6 cr
NURS 2546	Professional Nursing Practicum III	3 cr
NURS 2547	Professional Nursing Leadership	2 cr
PHIL 2422	Medical Ethics (Goals 6,9)	3 cr
PS C 2421	General Psychology (Goals 2,5)	4 cr

GRADUATION REQUIREMENT - 64 CREDITS

**Denotes Prerequisites*

***C M 1 10, 1 1 , 1 or 1 , 7 or 7 may be substituted for C M 1 07.*

Career Opportunities

Registered Nurses (RNs) make up the largest number of health care professionals in the United States. Currently there are 2.6 million RN jobs in the nation with an e pected job growth rate of 22 , accounting for a more rapid growth rate than the national average for all other professions. RNs work to promote health, prevent disease, and help clients cope with illness. They are advocates and health educators for clients, families, and communities.

hen providing direct client care they assess and record symptoms, responses, and progress of clients; assist physicians during e aminations, treatments, and surgeries; administer medications; and assist in convalescence and rehabilitation. RNs develop and manage nursing care plans and must possess critical thinking and problem solving skills.

Semester Course Requirements

Prere uisites (35 credits)

Successful completion of a Practical Nursing Program.... 8 cr
IOL 2467 Anatomy Physiology I (Goal 3)..... 4 cr
CHEM 1407 Life Science Chemistry (Goal 3)..... 4 cr
ENGL 1410 Composition I (Goal 1)..... 4 cr
ENGL 1411 Composition II (Goal 1)..... 4 cr
NURS 1547 Professional Nursing Role Transition..... 4 cr
PHIL 2422 Medical Ethics (Goals 6 and 9)..... 3 cr
PS C 2421 General Psychology (Goals 2 and 5)..... 4 cr

Semester One First ear (14 credits)

IOL 2468 Anatomy Physiology II (Goal 3)..... 4 cr
NURS 2540 Professional Nursing Concepts II..... 6 cr
NURS 2541 Professional Nursing Practicum II..... 3 cr
NURS 2542 Advanced Skills for the Professional Nurse..... 1 cr

Semester Two First ear (15 credits)

IOL 2457 Microbiology (Goal 3)..... 4 cr
NURS 2545 Professional Nursing Concepts III..... 6 cr
NURS 2546 Professional Nursing Practicum III..... 3 cr
NURS 2547 Professional Nursing Leadership..... 2 cr

L 7 and L 6 may be ta en concurrently with required courses however, applications are considered more competitive when completed prior to admission.

Program Admissions Requirements

- NSGA 1110 Nursing Assistant Course, OR 75 hour Minnesota Department of Health Nursing Assistant, OR active on the MN Registry of Nursing Assistants.
- This program has a special application process that includes completion of a CLC application and the College Entrance Test (CET). Traditional nursing application must be completed along with the TEAS Test.
- Prerequisite courses (35 credits) must be completed prior to acceptance into the program. IOL 2457 and IOL 2468 may be taken concurrently with required courses. See an advisor for further information.
- Students must apply each semester that they are seeking acceptance to the AD Nursing Program. Applications are accepted on an ongoing basis. First review of applicants will be completed with a priority deadline of February 1st for Fall start and with a priority deadlines of uly 1st for Spring start. Applicants will continue to be reviewed and accepted up until the start of the semester if space is available in the program.
- Any person who has direct contact with patients and residents at health care facilities licensed by the Minnesota Department of Health must have a criminal background check completed. Results of the study are to be on file in the Department of Nursing before students begin their clinical e periences. Any student who does not pass the criminal background check will not be permitted to participate in clinical e periences, thereby rendering the individual ineligible to progress in the AD Nursing Program.
- Drug testing is required.
- Immunization documentation is required.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, clinical courses may require students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement students must complete 25 of their credits at Central Lakes College;
3. Students must achieve a grade of - or better in all Nursing (NURS) courses;
4. Students must achieve a grade of C or better and a cumulative GPA of 2.75 or higher in the following courses IOL 2457, IOL 2467, IOL 2468, CHEM 1407, ENGL 1410, ENGL 1411, PHIL 2422, and PS C 2421.

Program Accreditation

The CLC Associate Degree in Nursing Program is accredited by the National League for Nursing Commission for Nursing Education Accreditation (NLN CNEA). The most recent accreditation was affirmed in une, 2019.

Central Lakes College, Brainerd Campus 2020-2021

Practical Nursing

Diploma (D300)

Technical Requirements 29
MN Transfer Curriculum 7
Total Credits 36

Program Description

The Practical Nursing Diploma program prepares graduates to take the National Council Licensure E amination for Practical Nursing. Course requirements include a wide variety of clinical e periences in hospitals, clinics and nursing homes. Graduates join the healthcare team as Licensed Practical Nurses (LPNs) upon successful completion of the licensing requirements.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Client Centered Care (NLN Human Flourishing) - The Practical Nursing graduate utilizes therapeutic communication skills when providing care through focus assessments, founded on basic holistic needs of individual clients across the lifespan.
- Nursing udgment - The Practical Nursing graduate applies the nursing process and evidence based decision making when working within an established plan of care by implementing interventions, reporting changes, and promoting safety and health of individual clients across the lifespan.
- Professional Identity - The Practical Nursing graduate demonstrates professionalism and teamwork in an ethical and legal manner when implementing or assigning aspects of care for an individual client, under the direction of a Registered Nurse or other health care provider.
- Quality Improvement (NLN Spirit of In uiry) - The Practical Nursing graduate contributes to continuous quality improvement by providing input into the development of policies and procedures and effectively using resources and technology to achieve optimal client outcomes.

Career Opportunities

Licensed practical nurses (LPNs) and licensed vocational nurses (L Ns) care for people who are sick, injured or disabled under the direction of physicians and registered nurses. The nature of the direction and supervision required varies by state and job setting. Available employment options can be found in acute care hospitals, nursing homes, home health care settings and clinics.

Program Course Requirements

IOL 1404	Human iology (Goal 3) OR	3 cr
IOL 2467	Anatomy Physiology I (Goal 3) AND	4 cr
IOL 2468	Anatomy Physiology II (Goal 3)	4 cr
ENGL 1410	Composition I (Goal 1)	4 cr
PNUR 1130	Life Span	1 cr
PNUR 1140	Medication Calculations for Healthcare Professionals	1 cr
PNUR 1149	Clinical Lab I	2 cr
PNUR 1150	Clinical Lab II	4 cr
PNUR 1160	Practical Nursing Skills Lab	3 cr
PNUR 1166	Gerontological Nursing	2 cr
PNUR 1168	Psychosocial Nursing	3 cr
PNUR 1175	Maternal Child Health	2 cr
PNUR 1265	Medical Surgical Nursing I	5 cr
PNUR 1270	Medical Surgical Nursing II	6 cr

GRADUATION REQUIREMENT - 36 CREDITS

**Denotes Prerequisites*

***Students may substitute PS C 1 for P R 11 0.*

Transfer Opportunities

This program has transfer articulation agreements with Ale andria Technical and Community College, Anoka-Ramsey Community College, Century College, Fond du Lac Tribal Community College, Hibbing Community Technical College, Inver Hills Community College, Minneapolis Community Technical College, Minnesota State College - Southeast Technical, Minnesota State Community and Technical College, Minnesota est Community Technical College, Normandale Community College, North Hennepin Community College, Northland Community Technical College, Northwest Technical College emidji, Pine Technical College, Ridgewater College, Riverland Community College, Rochester Community Technical College, South Central College, St Cloud Technical and Community College.

Semester Course Requirements

Semester One – Summer Session (9 credits)

IOL 1404	Human iology (Goal 3) OR	3 cr
IOL 2467	Anatomy Physiology I (Goal 3) AND	4 cr
IOL 2468	Anatomy Physiology II (Goal 3)	4 cr
ENGL 1410	Composition I (Goal 1)	4 cr
PNUR 1130	Life Span	1 cr
PNUR 1140	Medication Calculations for Healthcare Professionals	1 cr

Semester Two - First ear (13 credits)

PNUR 1149	Clinical Lab I	2 cr
PNUR 1160	Practical Nursing Skills Lab	3 cr
PNUR 1168	Psychosocial Nursing	3 cr
PNUR 1265	Medical Surgical Nursing I	5 cr

Semester Three - Second ear (14 credits)

PNUR 1150	Clinical Lab II	4 cr
PNUR 1166	Gerontological Nursing	2 cr
PNUR 1175	Maternal Child Health	2 cr
PNUR 1270	Medical Surgical Nursing II	6 cr

**Denotes Prerequisites*
***Students may substitute PS C 1 for P R 11 0.*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Admissions Requirements

- Health Care Provider or Professional Rescuer CPR Certificate.
- NSGA 1110 Nursing Assistant Course, OR 75 hour Minnesota Department of Health Nursing Assistant, OR active on the MN Registry of Nursing Assistants.
- This program has a special application process that includes completion of a CLC application and the College Entrance Test (CET). A practical nursing application must be completed along with the TEAS Test. Please contact the admissions department for information or to apply to the program.
- Any person who has direct contact with patients and residents at health care facilities licensed by the Minnesota Department of Health must have a criminal background check completed. Results of the study are to be on file in the Department of Nursing before students begin their clinical e periences. Any student who does not pass the criminal background check will not be permitted to participate in clinical e periences, thereby rendering the individual ineligible to progress in the AD Nursing Program.
- Drug testing is required.
- Immunization documentation is required.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. Residency Requirement students must complete 25 of their credits at Central Lakes College;
3. Students must achieve a grade of - or better in all Practical Nursing (PNUR) courses;
4. Students must achieve a grade of C or better in all required Minnesota Transfer Curriculum courses.

Program Accreditation

The CLC Practical Nursing Diploma program is accredited by the National League for Nursing Commission for Nursing Education Accreditation (NLN CNEA).

Central Lakes College, Brainerd Campus 2020-2021

Occupational Skills

Diploma (D310)

Technical Requirements 32
Electives 2
Total Credits 34

Program Description

Occupational Skills is a nine-month diploma program designed for individuals with mild to moderate disability, focusing on competitive entry-level employment. The program is geared toward individuals who can possess the ability to work competitive entry-level employment with training and support, but may find it difficult to meet the rigor of a traditional college program. Work experiences as well as coursework to support independence in the workplace and in the community are the main components of the program. Students also participate in a number of exciting and educational off-campus experiences designed to promote community access, social skills, recreation and healthy living.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Communicate with supervisors and peers;
- Maintain employment in supervised settings;
- Follow specified procedures and timelines;
- Exhibit self-advocacy skills in personal and work settings;
- Set appropriate short term and long term goals.

Admissions

Students in Occupational Skills have documented disabilities and the ability to compete for entry-level job positions in the community in which they reside. All services required for independent living are secured by the student and family before the start of Fall Semester. Students may apply beginning on September 1st, the year preceding attendance in the program. Student interviews for applicants meeting program criteria begin in January. Interviews and acceptance of students are completed from January to April with new students attending orientation in late spring.

Career Opportunities

The Occupational Skills Program offers work-based training and classroom instruction for persons with disabilities with the outcome of competitive entry-level employment. Students actively participate in opportunities in the workplace and the classroom to expand their work experience background and increase their employability in the entry-level skilled work market. Experiences in the program also promote social, physical and emotional growth in the college setting.

Program Course Requirements

COMP 1103	Computer Basics I	1 cr
COMP 1104	Computer Basics II	1 cr
OSKL 1142	Communication I	3 cr
OSKL 1144	Critical Reasoning Skills I	4 cr
OSKL 1146	Critical Reasoning Skills II	3 cr
OSKL 1148	Employability Skills I	3 cr
OSKL 1150	Employability Skills II	4 cr
OSKL 1154	Supervised Pre-Internship I	4 cr
OSKL 1156	Supervised Pre-Internship II	4 cr
OSKL 1162	Study Skills I	1 cr
OSKL 1164	Study Skills II	1 cr
OSKL 1166	Communication II	3 cr

Students must select an additional two (2) credits that have been approved by the instructor or advisor

Electives		2 cr

GRADUATION REQUIREMENT - 34 CREDITS

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (17 credits)

COMP 1103	Computer Basics I	1 cr
OSKL 1142	Communication I	3 cr
OSKL 1144	Critical Reasoning Skills I	4 cr
OSKL 1148	Employability Skills I	3 cr
OSKL 1154	Supervised Pre-Internship I	4 cr
OSKL 1162	Study Skills I	1 cr
Elective		1 cr

Semester Two (17 credits)

COMP 1104	Computer Basics II	1 cr
OSKL 1146	Critical Reasoning Skills II	3 cr
OSKL 1150	Employability Skills II	4 cr
OSKL 1156	Supervised Pre-Internship II	4 cr
OSKL 1164	Study Skills II	1 cr
OSKL 1166	Communication II	3 cr
Elective		1 cr

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Robotics/Automated Systems Technology, A.A.S.

Associate of Applied Science Degree (A240)

Technical Requirements 55
MN Transfer Curriculum 15
Total Credits 70

Program Description

Robotic Automated Systems Technicians are an integral part of modern manufacturing companies. Technologies such as new-generation robot controllers, sensors, and electrical control systems have created a need for highly specialized training. The Robotics Automated Systems Technology Associate in Applied Science (A.A.S.) Degree prepares students for careers in the industrial robotic and automated manufacturing industry. The program has multiple robot and automation labs utilizing current technology with popular industrial robot models. The program is aligned with advisory board members, industrial partners, and industrial associations to deliver relevant content and instruction. Students are trained on the same robots, controllers, and programming languages used by manufacturing companies. The curriculum was created and is maintained by experienced technical faculty, advisory board members, and past graduates to best prepare students for employment in the industrial robotics industry. The A.A.S. Degree includes the Minnesota State Transfer Curriculum to prepare students for career advancement and articulates to other universities for additional educational awards.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify and apply appropriate safety procedures;
- Apply knowledge and skills in electrical systems;
- Apply knowledge and skills in mechanical systems;
- Apply knowledge and skills in creating program code;
- Analyze and apply specific troubleshooting knowledge and technology in the areas of electrical, mechanical, software and program code;
- Apply effective communication and interpersonal skills as an individual and as a team member.

Program Course Requirements

MTTS 1264	Introduction to Machining Processes	2 cr
RAST 1101*	Industrial Electronics I	3 cr
RAST 1102*	Industrial Electronics II	3 cr
RAST 1103*	Motors and Drives	3 cr
RAST 1104	Introduction to Automation	2 cr
RAST 1109	Computers in Industry	2 cr
RAST 1110	Introduction to Manufacturing	2 cr
RAST 1111	Industrial Electronics Lab I	2 cr
RAST 1113*	Motors and Drives Lab	3 cr
RAST 1120	Introduction to Engineering Graphics	2 cr
RAST 1206*	Programmable Logic Controllers I	3 cr
RAST 1212*	Industrial Electronics Lab II	2 cr
RAST 2101*	Application Planning & Layout	2 cr
RAST 2105*	Transducers	2 cr
RAST 2106*	Industrial Electronics III	2 cr
RAST 2116*	Industrial Electronics Lab III	2 cr
RAST 2132*	Robotic Programming	3 cr
RAST 2151*	Robotic Integration Lab	6 cr
RAST 2154*	Robot Controller Maintenance	2 cr
RAST 2165*	Fluid Power	2 cr
RAST 2355*	Programmable Logic Controllers II	2 cr
RAST 2395*	Advanced Robot Controller Programming	2 cr
RAST 2390*	Robotics Internship **OR**	
RAST2399*	Independent Study	1-3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include within the following course:

MATH 1470 College Algebra (Goal 3) .....3 cr

Additional Minnesota Transfer Curriculum courses .....12 cr

GRADUATION REQUIREMENT - 70 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (18 credits)

MTTS 1264	Introduction to Machining Processes	2 cr
RAST 1101*	Industrial Electronics I	3 cr
RAST 1104	Introduction to Automation	2 cr
RAST 1109	Computers in Industry	2 cr
RAST 1110	Introduction to Manufacturing	2 cr
RAST 1111	Industrial Electronics Lab I	2 cr
RAST 1120	Introduction to Engineering Graphics	2 cr
Minnesota Transfer Curriculum		3 cr

Semester Two (17 credits)

RAST 1102*	Industrial Electronics II	3 cr
RAST 1103*	Motors and Drives	3 cr
RAST 1113*	Motors & Drives Lab	3 cr
RAST 1206*	Programmable Logic Controllers I	3 cr
RAST 1212*	Industrial Electronics Lab II	2 cr
Minnesota Transfer Curriculum		3 cr

Semester Three First Year Summer (6 credits)

RAST 2101*	Application Planning & Layout	2 cr
RAST 2106*	Industrial Electronics III	2 cr
RAST 2116*	Industrial Electronics Lab III	2 cr

Semester Four (18 credits)

RAST 2105*	Transducers	2 cr
RAST 2132*	Robotic Programming	3 cr
RAST 2151*	Robotic Integration Lab	6 cr
RAST 2165*	Fluid Power	2 cr
RAST 2355*	Programmable Logic Controllers I	2 cr
MATH 1470	College Algebra (Goal 3)	3 cr

Semester Five (11 credits)

RAST 2154*	Robot Controller Maintenance	2 cr
RAST 2395*	Advanced Robot Controller Programming	2 cr
RAST 2390*	Robotics Internship **OR**	
RAST2399*	Independent Study	1-3 cr
Minnesota Transfer Curriculum		6 cr

Career Opportunities

This program prepares students for careers working for systems integrators, original equipment manufacturers, and robot manufacturers. Career opportunities may also be found in the automotive, aerospace, medical, machine tool, packaging, welding, and nuclear power industries. Career titles include Robotic Automated Systems Technician, Field Servicing Technician, and Electrical Controls Technician with responsibilities in building, repairing, installing, maintaining, and programming robotics and automated systems. The A.A.S. degree also prepares students for employment advancement or other opportunities including design, engineering, or management.

Transfer Opportunities

Courses in this program transfer to Bemidji State University, St. Cloud State University, and North Dakota State University.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Robotics/Automated Systems Technology

Diploma (D240)

Technical Requirements 55
General Education 6
Total Credits 61

Program Description

Robotic Automated Systems Technicians are an integral part of modern manufacturing companies. Technologies such as new-generation robot controllers, sensors, and electrical control systems have created a need for highly specialized training. The Robotics Automated Systems Technology Diploma program prepares students for careers in the industrial robotic and automated manufacturing industry. The program has multiple robot and automation labs utilizing current technology with popular industrial robot models. The program is aligned with advisory board members, industrial partners, and industrial associations to deliver relevant content and instruction. Students are trained on the same robots, controllers, and programming languages used by automated manufacturing companies. The curriculum was created and is maintained by experienced technical faculty, advisory board members, and past graduates to best prepare students for employment in the industrial robotics industry.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify and apply appropriate safety procedures;
- Apply knowledge and skills in electrical systems;
- Apply knowledge and skills in mechanical systems;
- Apply knowledge and skills in creating program code;
- Analyze and apply specific troubleshooting knowledge and technology in the areas of electrical, mechanical, software and program code;
- Apply effective communication and interpersonal skills as an individual and as a team member.

Program Course Requirements

MTTS 1264	Introduction to Machining Processes	2 cr
RAST 1101*	Industrial Electronics I	3 cr
RAST 1102*	Industrial Electronics II	3 cr
RAST 1103*	Motors and Drives	3 cr
RAST 1104	Introduction to Automation	2 cr
RAST 1109	Computers in Industry	2 cr
RAST 1110	Introduction to Manufacturing	2 cr
RAST 1111	Industrial Electronics Lab I	2 cr
RAST 1113*	Motors and Drives Lab	3 cr
RAST 1120	Introduction to Engineering Graphics	2 cr
RAST 1206*	Programmable Logic Controllers I	3 cr
RAST 1212*	Industrial Electronics Lab II	2 cr
RAST 2101*	Application Planning & Layout	2 cr
RAST 2105*	Transducers	2 cr
RAST 2106*	Industrial Electronics III	2 cr
RAST 2116*	Industrial Electronics Lab III	2 cr
RAST 2132*	Robotic Programming	3 cr
RAST 2151*	Robotic Integration Lab	6 cr
RAST 2154*	Robot Controller Maintenance	2 cr
RAST 2165*	Fluid Power	2 cr
RAST 2355*	Programmable Logic Controllers II	2 cr
RAST 2395*	Advanced Robot Controller Programming	2 cr
RAST 2390*	Robotics Internship **OR**	
RAST2399*	Independent Study	1-3 cr
MATH 1500	Applied Mathematics (or higher)	3 cr
General Education Courses		3 cr

GRADUATION REQUIREMENT - 61 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (18 credits)

MTTS 1264	Introduction to Machining Processes	2 cr
RAST 1101*	Industrial Electronics I	3 cr
RAST 1104	Introduction to Automation	2 cr
RAST 1109	Computers in Industry	2 cr
RAST 1110	Introduction to Manufacturing	2 cr
RAST 1111	Industrial Electronics Lab I	2 cr
RAST 1120	Introduction to Engineering Graphics	2 cr
Minnesota Transfer Curriculum		3 cr

Semester Two (17 credits)

RAST 1102*	Industrial Electronics II	3 cr
RAST 1103*	Motors and Drives	3 cr
RAST 1113*	Motors & Drives Lab	3 cr
RAST 1206*	Programmable Logic Controllers I	3 cr
RAST 1212*	Industrial Electronics Lab II	2 cr
MATH 1500	Applied Mathematics (or higher)	3 cr

Semester Three First Year Summer (6 credits)

RAST 2101*	Application Planning & Layout	2 cr
RAST 2106*	Industrial Electronics III	2 cr
RAST 2116*	Industrial Electronics Lab III	2 cr

Semester Four (15 credits)

RAST 2105*	Transducers	2 cr
RAST 2132*	Robotic Programming	3 cr
RAST 2151*	Robotic Integration Lab	6 cr
RAST 2165*	Fluid Power	2 cr
RAST 2355*	Programmable Logic Controllers I	2 cr

Semester Five (5 credits)

RAST 2154*	Robot Controller Maintenance	2 cr
RAST 2395*	Advanced Robot Controller Programming	2 cr
RAST 2390*	Robotics Internship **OR**	
RAST2399*	Independent Study	1-3 cr

Career Opportunities

This program prepares students for careers working for systems integrators, original equipment manufacturers, and robot manufacturers. Career opportunities are available in the automotive, aerospace, medical, machine tool, packaging, welding, and nuclear power industries. Career titles include Robotic Automated Systems Technician, Field Servicing Technician, and Electrical Controls Technician with responsibilities in building, repairing, installing, maintaining, and programming robotics and automated systems.

Transfer Opportunities

Courses in this diploma will transfer into the Robotics Automated Systems Technology A.A.S. Degree at Central Lakes College.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Mechatronics

Diploma (D241)

Technical Requirements 40
Total Credits 40

Program Description

The Mechatronics Diploma program prepares students for careers in electrical maintenance for the manufacturing industry. As manufacturing processes increasingly become more advanced, maintenance employees must understand robotic and automated systems to properly maintain industrial equipment. Students are introduced to the same robots, controllers, and programming languages used by manufacturing companies. The curriculum was created and is maintained by experienced technical faculty, advisory board members, and past graduates to best prepare students for employment in the industrial robotics industry.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify and apply appropriate safety procedures;
- Apply knowledge and skills in electrical systems;
- Apply knowledge and skills in mechanical systems;
- Apply knowledge and skills in creating program code;
- Analyze and apply specific troubleshooting knowledge and technology in the areas of electrical, mechanical, software, and program code; and
- Apply effective communication and interpersonal skills as an individual and as a team member.

Career Opportunities

This program prepares students for career opportunities working for maintenance departments in the manufacturing industry. Career opportunities include maintaining electrical systems, electrical control panel building, and machine wiring. Career titles include Electrical Maintenance Technician, Panel Builder, and Electrical Assembler.

Program Course Requirements

MATH 1500	Applied Mathematics (or higher)	3 cr
MTTS 1264	Introduction to Machining Processes	2 cr
RAST 1101*	Industrial Electronics I	3 cr
RAST 1102*	Industrial Electronics II	3 cr
RAST 1103*	Motors and Drives	3 cr
RAST 1104	Introduction to Automation	2 cr
RAST 1109	Computers in Industry	2 cr
RAST 1110	Intro to Manufacturing	2 cr
RAST 1111	Industrial Electronics Lab I	2 cr
RAST 1113*	Motors and Drives Lab	3 cr
RAST 1120	Introduction to Engineering Graphics	2 cr
RAST 1206*	Programmable Logic Controllers I	3 cr
RAST 1212*	Industrial Electronics Lab II	2 cr
RAST 2105*	Transducers	2 cr
RAST 2106*	Industrial Electronics III	2 cr
RAST 2116*	Industrial Electronics Lab III	2 cr
RAST 2165*	Fluid Power	2 cr

GRADUATION REQUIREMENT - 40 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Transfer Opportunities

Courses in this program will transfer into the Robotics Automated Systems Technology A.A.S. Degree and Diploma programs at Central Lakes College.

Semester Course Requirements

Semester One (15 credits)

MTTS 1264	Introduction to Machining Processes	2 cr
RAST 1101*	Industrial Electronics I	3 cr
RAST 1104	Introduction to Automation	2 cr
RAST 1109	Computers in Industry	2 cr
RAST 1110	Intro to Manufacturing	2 cr
RAST 1111	Industrial Electronics Lab I	2 cr
RAST 1120	Introduction to Engineering Graphics	2 cr

Semester Two (17 credits)

RAST 1102*	Industrial Electronics II	3 cr
RAST 1103*	Motors and Drives	3 cr
RAST 1113*	Motors & Drives Lab	3 cr
RAST 1206*	Programmable Logic Controllers I	3 cr
RAST 1212*	Industrial Electronics Lab II	2 cr
MATH 1500	Applied Mathematics (or higher)	3 cr

Semester Three (8 credits)

RAST 2105*	Transducers	2 cr
RAST 2106*	Industrial Electronics III	2 cr
RAST 2116*	Industrial Electronics Lab III	2 cr
RAST 2165*	Fluid Power	2 cr

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Robotic Human Machine Interface Advanced

Advanced Certificate (C242)

Technical Requirements 10
Total Credits 10

Program Description

The Robotic Human Machine Interface (HMI) Advanced Certificate is an add-on certificate for both the Robotics Automated Systems Technology A.A.S. Degree and Diploma programs. HMI control panels are widely used in the manufacturing industry for operator control of robotic and automated systems. This certificate prepares students to program and interface HMI devices into robotic and automated systems.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Identify, select, and configure HMI device hardware;
- Integrate HMI devices into robotic and automated systems; and
- Create HMI operator control graphical interface code.

Career Opportunities

This certificate prepares students for career opportunities working with HMI operator control panels for system integrators, original equipment manufacturers, and robot manufacturers. Career opportunities also include working with HMI control panels in the automotive, aerospace, medical, machine tool, packaging, welding, and nuclear power industries. Career titles include Robotic Automated Systems Technician, Field Servicing Technician, and Electrical Controls Technician with specific responsibilities in HMI setup and programming.

Program Admissions Requirements

Students must be currently enrolled in either the Robotics Automated Systems Technology A.A.S. or Diploma program to be accepted into this certificate program.

Program Course Requirements

RAST 2121	SCADA Programming	2 cr
RAST 2122	HMI Programming	2 cr
RAST 2153	Applied Robotic Certification Lab	6 cr

GRADUATION REQUIREMENT - 10 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement students must complete 25 of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Robotic Manufacturing

Certificate (C239)

Technical Requirements 18
Total Credits 18

Program Description

The Robotic Manufacturing Certificate is an entry-level certificate for students seeking employment in the manufacturing industry. Industrial robotics are increasingly becoming more common in the manufacturing environment and employers need employees who can operate and setup robotic and automated production systems. This certificate prepares students to work with industrial automation.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify and apply appropriate safety procedures;
- Apply knowledge and skills in creating program code;
- Apply knowledge and skills of electrical systems;
- Apply effective communication and interpersonal skills as an individual and as a team member.

Career Opportunities

This certificate prepares students to work for the manufacturing industry, working for end-users of robotics and automated equipment. Career opportunities include working on manufacturing production and assembly lines working with and maintaining automated equipment. Career titles include Operator and Setup Operator.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Course Requirements

MTTS 1264	Introduction to Machining Process	2 cr
RAST 1101	Industrial Electronics I	3 cr
RAST 1104	Introduction to Automation	2 cr
RAST 1109	Computers in Industry	2 cr
RAST 1110	Introduction to Manufacturing	2 cr
RAST 1111	Industrial Electronics Lab I	2 cr
RAST 1120	Introduction to Engineering Graphics	2 cr
MATH 1500	Applied Mathematics (or higher)	3 cr

GRADUATION REQUIREMENT - 18 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Transfer Opportunities

Courses from this certificate will transfer into the Robotics Automated Systems Technology A.A.S. Degree and Diploma at Central Lakes College.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Robotic Offline Programming Advanced

Advanced Certificate (C244)

Technical Requirements 9
Total Credits 9

Program Description

The Robotic Offline Programming Advanced Certificate is an add-on certificate for both the Robotics Automated Systems Technology A.A.S. Degree and Diploma programs. Robotic offline programming is a widely used programming process for robotics in the manufacturing industry. This certificate prepares students to use 3-D simulation software packages to create virtual robotic systems. These virtual systems are used for modeling, programming, and setup for physical industrial robotic systems found in the manufacturing industry.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Create virtual robotic systems using proprietary software packages commonly used in the robotics industry;
- Create and develop robot programs in the virtual environment; and
- Deploy virtual simulation programs to physical robotic systems.

Career Opportunities

This certificate prepares students for career opportunities working with simulation software packages for system integrators, original equipment manufacturers, and robot manufacturers. Career opportunities also include offline robotic simulation for the automotive, aerospace, medical, machine tool, packaging, welding, and nuclear power industries. Career titles include Robotic Automated Systems Technician, Field Servicing Technician, and Electrical Controls Technician with specific responsibilities in robotic programming and simulation.

Program Admissions Requirements

Students must be currently enrolled in either the Robotics Automated Systems Technology A.A.S. or Diploma program to be accepted into this certificate program.

Program Course Requirements

RAST 2120 Offline Programming and Simulation.....3 cr
RAST 2153 Applied Robotic Certification Lab.....6 cr

GRADUATION REQUIREMENT - 9 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement students must complete 25 of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Robotic Vision Advanced

Certificate (C243)

Technical Requirements 10
Total Credits 10

Program Description

The Robotic ision Advanced Certificate is an add-on certificate for both the Robotics Automated Systems Technology A.A.S. Degree and Diploma programs. Robotic and machine vision systems are increasingly becoming more of an integral part of robotics and automation. ision systems are used for quality control, product location and orientation, and identification purposes.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Identify and apply appropriate safety procedures;
- Integrate machine vision systems into robotic and automated systems;
- Create machine vision system code; and
- Interpret machine vision system data.

Career Opportunities

This certificate prepares students for career opportunities working with vision systems for system integrators, original equipment manufacturers, and robot manufacturers. Career opportunities also include working with vision systems in the automotive, aerospace, medical, machine tool, packaging, welding, and nuclear power industries. Career titles include Robotic Automated Systems Technician, Field Servicing Technician, and Electrical Controls Technician with specific responsibilities in the setup and programming of machine vision systems.

Program Admissions Requirements

Students must be currently enrolled in either the Robotics Automated Systems Technology A.A.S. or Diploma program to be accepted into this certificate program.

Program Course Requirements

RAST 2123 Robotic ision Programming.....2 cr
RAST 2124 Lenses, Lighting, and ision Hardware.....2 cr
RAST 2153 Applied Robotic Certification Lab.....6 cr

GRADUATION REQUIREMENT - 10 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement students must complete 25 of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Robotic Welding

Certificate (C381)

Technical Requirements 16
Total Credits 16

Program Description

The Robotic Welding Certificate instructs students in welding cell safety devices, blueprints, and symbols. Upon successful completion of the program, students will be skilled in manual and robotic Gas Metal Arc Welding (GMAW) welding processes, welding procedures, and creating and editing robotic welding programs.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply proper industry safety standards;
- Interpret and follow industrial welding prints;
- Identify GMAW processes and procedures;
- Demonstrate manual GMAW processes and procedures;
- Configure multiple robotic weld procedures, weld schedules, and weave schedules;
- Create welding programs and use techniques found in the industrial robotic welding industry; and
- Configure and utilize advanced welding programming options.

Career Opportunities

This certificate prepares students for career opportunities as welders to setup automated equipment within a robotic welding cell using safety devices, user operator systems, and welding power supplies. They also maintain welding torch equipment, create and modify robotic welding programs, and change existing welding parameters. Common career titles in this field are Robotic Welding Cell Operator, Robotic Welding System Technician, Robotic Welding System Operator, Robotic Welding Setup Operator.

Program Course Requirements

RAST 1104	Introduction to Automation	2 cr
RAST 2134*	Robotic ARC Welding	3 cr
WELD 1100	Introduction to Welding	2 cr
WELD 1111	Blueprint Reading I	2 cr
WELD 1112*	Blueprint Reading II	2 cr
WELD 1117	Gas Metal ARC Welding I	2 cr
WELD 1118*	Gas Metal ARC Welding II	3 cr

GRADUATION REQUIREMENT - 16 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Robotic Welding Advanced

Advanced Certificate (C382)

Technical Requirements 12
Total Credits 12

Program Description

The Robotic elding Advanced Certificate is an add-on certificate for both the Robotics Automated Systems Technology A.A.S. Degree and Diploma programs. Robotic welding is a widely used process for fabrication in the manufacturing industry. This certificate prepares students to use robotics for the welding process.

Program Outcomes

y completing this program, students will achieve the following learning outcomes

- Identify and configure multiple weld procedures, weld schedules, and weave schedules;
- Create welding programs and use techniques found in the industrial robotic welding industry;
- Configure and utilize advanced welding programming options;
- Create virtual robotic systems using proprietary software packages commonly used in the robotics industry;
- Create and develop robot programs in the virtual environment; and
- Deploy virtual simulation programs to physical robotic systems.

Career Opportunities

This certificate prepares students for career opportunities working with robotic welding systems for system integrators, original equipment manufacturers, and robot manufacturers. Career opportunities also include robotic welding systems in the automotive, aerospace, medical, machine tool, packaging, welding, and nuclear power industries. Career titles include Robotic Automated Systems Technician, Field Servicing Technician, and Electrical Controls Technician with specific responsibilities in robotic welding and programming.

Program Admissions Requirements

Students must be currently enrolled in either the Robotics Automated Systems Technology A.A.S. or Diploma program to be accepted into this certificate program.

Program Course Requirements

RAST 2120 Offline Programming and Simulation.....3 cr
RAST 2134 Robotic ARC elding .....3 cr
RAST 2153 Applied Robotic Certification Lab.....6 cr

GRADUATION REQUIREMENT - 12 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate

1. College Cumulative GPA Requirement cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement students must complete 25 of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Videography Production, A.A.S

Associate of Applied Science Degree (A219)

Technical Requirements 45
MN Transfer Curriculum 15
Total Credits 60

Program Description

Central Lakes College Videography is designed to simulate the experience of an actual production environment. Students produce authentic videos for actual clients who are in pursuit of video content. The curriculum has an emphasis on learning in a lab-based environment. We believe learning is enhanced by frequent repetition of basic filmmaking procedures. That's why students at CLC *write, shoot and edit* content every week, using the latest technology in equipment and software. Our goal is simple: prepare students for entry-level careers in media – which includes television, filmmaking, corporate communications, webcasting and social media content.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply protocol and safety in video production working environments;
- Recognize and apply knowledge in script writing, camera operation, sound recording, editing, and production design for video applications;
- Utilize video production equipment and software programs used in videography applications and creating special effects;
- Analyze and apply appropriate lighting techniques for motion picture programming; and
- Encode video files for distribution to broadcast, web, and digital recording.

Career Opportunities

Nationally and regionally, the industry is in a dramatic growth period with the explosion of internet and mobile delivery options. Organizations are increasingly turning to web-based video conferencing for corporate communications. Video content has become the *de facto* form of communication in business. According to Minnesota State CAREERwise, the outlook for editors, producers, directors, graphic designers and social media directors is for ***high growth*** between 2016 & 2026. Our focused approach to hands-on learning at Central Lakes College ensures graduates will be positioned appropriately for successful entry into the industry.

Program Course Requirements

GDES 1146	Video Graphics	3 cr
GDES 2130	Motion Graphics I	3 cr
GDES 2126	Video in Social Media	2 cr
GDES 2134	Motion Graphics II	3 cr
VPRO 1100*	Media Script Writing	3 cr
VPRO 1110	Video Editing Workflow	3 cr
VPRO 1114	Camera Operations	3 cr
VPRO 1126	Media Lighting and Sound	4 cr
VPRO 1128	Business of Media	3 cr
VPRO 2104	CLC Productions I	4 cr
VPRO 2106	CLC Productions II	4 cr
VPRO 2110	Advanced Camera	3 cr
VPRO 2112	Advanced Video Editing	3 cr
VPRO 2130	Creative Development	4 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include one of the following courses:

ENGL 1410	Composition I (Goal 1) **OR**	4 cr
ENGL 1422	Practical Writing (Goals 1 and 2)	3 cr

Additional Minnesota Transfer Curriculum courses ..... 12 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (15-16 credits)

ENGL 1410	Composition I (Goal 1) **OR**	4 cr
ENGL 1422	Practical Writing (Goals 1 and 2)	3 cr
GDES 1146	Video Graphics	3 cr
VPRO 1110	Video Editing Workflow	3 cr
VPRO 1114	Camera Operations	3 cr
Minnesota Transfer Curriculum		3 cr

Semester Two (16 credits)

VPRO 1100*	Media Script Writing	3 cr
VPRO 1128	Business of Media	3 cr
VPRO 1126	Media Lighting and Sound	4 cr
GDES 2130	Motion Graphics I	3 cr
Minnesota Transfer Curriculum		3 cr

Semester Three (16 credits)

GDES 2134	Motion Graphics II	3 cr
VPRO 2104	CLC Productions I	4 cr
VPRO 2110	Advanced Camera	3 cr
VPRO 2112	Advanced Video Editing	3 cr
Minnesota Transfer Curriculum		3 cr

Semester Four (13 credits)

GDES 2126	Video in Social Media	2 cr
VPRO 2106	CLC Productions II	4 cr
VPRO 2130	Creative Development	4 cr
Minnesota Transfer Curriculum		3 cr

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Videography Production

Diploma (D219)

Technical Requirements 45
General Education 6
Total Credits 51

Program Description

Central Lakes College Videography is designed to simulate the experience of an actual production environment. Students produce authentic videos for actual clients who are in pursuit of video content. The curriculum has an emphasis on learning in a lab-based environment. We believe learning is enhanced by frequent repetition of basic filmmaking procedures. That's why students at CLC *write, shoot and edit* content every week, using the latest technology in equipment and software. Our goal is simple: prepare students for entry-level careers in media – which includes television, filmmaking, corporate communications, webcasting and social media content.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply protocol and safety in video production working environments;
- Recognize and apply knowledge in script writing, camera operation, sound recording, editing, and production design for video applications;
- Utilize video production equipment and software programs used in videography applications and creating special effects;
- Analyze and apply appropriate lighting techniques for motion picture programming; and
- Encode video files for distribution to broadcast, web, and digital recording.

Career Opportunities

Nationally and regionally, the industry is in a dramatic growth period with the explosion of internet and mobile delivery options. Organizations are increasingly turning to web-based video conferencing for corporate communications. Video content has become the *de facto* form of communication in business. According to Minnesota State CAREERwise, the outlook for editors, producers, directors, graphic designers and social media directors is for ***high growth*** between 2016 & 2026. Our focused approach to hands-on learning at Central Lakes College ensures graduates will be positioned appropriately for successful entry into the industry.

Program Course Requirements

GDES 1146	Video Graphics	3 cr
GDES 2130	Motion Graphics I	3 cr
GDES 2126	Video in Social Media	2 cr
GDES 2134	Motion Graphics II	3 cr
VPRO 1100*	Media Script Writing	3 cr
VPRO 1110	Video Editing Workflow	3 cr
VPRO 1114	Camera Operations	3 cr
VPRO 1126	Media Lighting and Sound	4 cr
VPRO 1128	Business of Media	3 cr
VPRO 2104	CLC Productions I	4 cr
VPRO 2106	CLC Productions II	4 cr
VPRO 2110	Advanced Camera	3 cr
VPRO 2112	Advanced Video Editing	3 cr
VPRO 2130	Creative Development	4 cr

Students must include within the General Education component one (1) of the following courses:

ENGL 1410	Composition I (Goal 1) **OR**	4 cr
ENGL 1422	Practical Writing (Goals 1,2)	3 cr
Additional General Education Courses		3 cr

GRADUATION REQUIREMENT - 51 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (12-13 credits)

ENGL 1410	Composition I (Goal 1) **OR**	4 cr
ENGL 1422	Practical Writing (Goals 1,2)	3 cr
GDES 1146	Video Graphics	3 cr
VPRO 1110	Video Editing Workflow	3 cr
VPRO 1114	Camera Operations	3 cr

Semester Two (13 credits)

VPRO 1100*	Media Script Writing	3 cr
VPRO 1128	Business of Media	3 cr
VPRO 1126	Media Lighting and Sound	4 cr
GDES 2130	Motion Graphics I	3 cr

Semester Three (13 credits)

GDES 2134	Motion Graphics II	3 cr
VPRO 2104	CLC Productions I	4 cr
VPRO 2110	Advanced Camera	3 cr
VPRO 2112	Advanced Video Editing	3 cr

Semester Four (13 credits)

GDES 2126	Video in Social Media	2 cr
VPRO 2106	CLC Productions II	4 cr
VPRO 2130	Creative Development	4 cr
General Education		3 cr

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Viticulture, A.A.S

Associate of Applied Science Degree (A275)

Technical Requirements 41
MN Transfer Curriculum 19
Total Credits 60

Program Description

The Viticulture Technology program provides a comprehensive examination of the field of viticulture (grape growing). The program provides the knowledge required to maintain vineyards in Minnesota and the Midwest, with specific attention given to varietal selection, soil preparation, pest management and marketing, as well as the science, agriculture and business skills necessary to succeed in Minnesota's rapidly growing viticulture business. The program includes fieldwork and practicums at local vineyards.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Manage all part-time and seasonal vineyard workers;
- Maintain records of all vineyard operation activities;
- Assist wine maker in crop load management, harvest coordination and execution;
- Monitor the vineyard regarding nutrient status, grape diseases, insect, fungus, weeds, and other pests;
- Maintain records of all viticultural monitoring activities;
- Practice IPM (Integrated Pest Management);
- Recommend and plan any large scale changes in vineyard plantings, specifically cultivars and selection of the site;
- Plan and assist in irrigation scheduling and operation;
- Plan and assist in general property maintenance;
- Operate vineyard machinery safely.

Career Opportunities

Vineyard managers oversee the growing and care of grapes. They develop a system of grape management that is appropriate for each vineyard. They decide how to manage planting, fertility, harvesting and pruning. They are heavily involved in varietal selection, site preparation, equipment maintenance and safety, first season establishment, vine growth development, trellis systems and pruning. They also are involved in pest management, soil quality and the overall impact on the environment.

Program Course Requirements

BUSN 1166	Business Communications	3 cr
COMP 1120	Intro to Computer Applications	3 cr
MATH 1506	Beginning College Algebra	4 cr
VITI 1105	Molecular Principals of Grape and Wine	4 cr
VITI 1111	Introduction to Viticulture and Vineyard Establishment	3 cr
VITI 1112	Botanical Viticulture	4 cr
VITI 1117	Cold Climate Viticulture	1 cr
VITI 1146*	Introduction to Enology	3 cr
VITI 1212*	Winter Viticulture Technology	2 cr
VITI 1214*	Spring Viticulture Technology	2 cr
VITI 1215*	Summer/Fall Viticulture Technology	2 cr
VITI 1211	Integrated Pest Management	2 cr
VITI 1213*	Regional Vineyard Management	2 cr
VITI 1266*	Sensory Evaluation	3 cr
VITI 1293	Soils for Viticulture	3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following courses:

BIOL 1431	General Biology I (Goal 3)	5 cr
COMM 1430	Public Speaking (Goals 1,2)	3 cr
ENGL 1410	Composition I (Goal 1)	4 cr
MATH 1460	Introduction to Statistics (Goal 4)	4 cr
POLS 1435	American Government and Politics (Goals 5,9)	3 cr

GRADUATION REQUIREMENT – 60 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Semester Course Requirements

Semester One (15 credits)

BIOL 1431	General Biology I (Goal 3)	5 cr
COMM 1120	Intro to Computer Applications	3 cr
MATH 1506	Beginning College Algebra	4 cr
VITI 1111	Introduction to Viticulture and Vineyard Establishment	3 cr

Semester Two (16 credits)

COMM 1430	Public Speaking (Goals 1 and 2)	3 cr
ENGL 1410	Composition I (Goal 1)	4 cr
VITI1105	Molecular Principles of Grape and Wine	4 cr
VITI 1212*	Winter Viticulture Technology	2 cr
VITI 1293	Soils for Viticulture	3 cr

Semester Three (2 credits)

VITI 1215*	Summer/Fall Viticulture Technology	2 cr

Semester Four (15 credits)

MATH 1460	Introduction to Statistics (Goal 4)	4 cr
VITI 1112	Botanical Viticulture	4 cr
VITI 1146*	Introduction to Enology	3 cr
VITI 1211	Integrated Pest Management	2 cr
VITI 1213*	Regional Vineyard Management	2 cr

Semester Five (12 credits)

BUSN 1166	Business Communications	3 cr
POLS 1435	American Government and Politics (Goals 5 and 9)	3 cr
VITI 1117	Cold Climate Viticulture	1 cr
VITI 1214*	Spring Viticulture Technology	2 cr
VITI 1266*	Sensory Evaluation	3 cr

Transfer Opportunities

Viticulture and Enology Science and Technology Alliance (VESTA) is a consortium of colleges, including Central Lakes College, Northeast Iowa Community College, Missouri State University, Rend Lake (Ill.) Community College, and Redlands (Okla) Community College. See an advisor for further information about completing a bachelor's degree.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Enology, A.A.S.

Associate of Applied Science Degree (A277)

Technical Requirements 42
MN Transfer Curriculum 18
Total Credits 60

Program Description

The program provides the knowledge required to produce wines of the highest quality. Students learn the science, agriculture, and business skills necessary to enhance Minnesota's rapidly growing wine industry. Included is a foundation in chemistry and biology along with specific courses related to cultivar selection, soil preparation, cellar maintenance and marketing. The program is specifically designed to include fieldwork and laboratory practicums at local wineries.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Examine grape samples to ascertain sweetness and acidity of crop, and determine harvest time based off of this information;
- Select yeasts for fermentation and barrels for aging;
- Communicate with vineyard manager regarding crop load, harvest time, and other issues related to crop quality;
- Correct sugar and acid levels of must and wine if necessary;
- Oversee primary fermentation by punching down the grape skin cap, regulating fermentation temperature and the amount of time the skins are in contact with the must, and initiating malolactic fermentation;
- Supervise workers in crushing and pressing processes, or perform those duties themselves;
- Supervise cellar operations during secondary fermentation with tasks such as aging, topping off barrels, and clearing wine of fermentation residue;
- Direct and coordinate blending and bottling of wine, or perform those duties themselves.

Career Opportunities

Enologists oversee the production of wine. They inspect grapes and evaluate the crops to determine when to harvest and start wine production. They ensure proper crushing methods and techniques. Responsibilities depend on the size of the winery. The enologist is heavily involved in quality control. One may work with a laboratory technician if employed by a larger winery. Another may develop new wines or specialize in a specific wine in a larger winery.

Program Course Requirements

BUSN 1166	Business Communications	3 cr
COMP 1120	Intro to Computer Applications	3 cr
MATH 1506	Beginning College Algebra	4 cr
VITI 1105	Molecular Principles of Grape and Wine	4 cr
VITI 1146*	Introduction to Enology	3 cr
VITI 1148*	Winery Sanitation	3 cr
VITI 1160*	Winery Equipment Operation	2 cr
VITI 1110	Introduction to Wine Microorganisms	3 cr
VITI 1246*	Intermediate Enology – Harvest/Crush	2 cr
VITI 1247*	Intermediate Enology – Post Harvest	2 cr
VITI 1257*	Fall Wine Production Internship	3 cr
VITI 1259*	Cellar Operations Technology	2 cr
VITI 1266*	Sensory Evaluation	3 cr
VITI 1268*	Wine and Must Analysis	3 cr

Students must choose a minimum of two (2) credits from the following courses:

VITI 1111	Introduction to Viticulture and Vineyard Establishment	3 cr
VITI 1147*	Introduction to Fruit Wine Production	2 cr
VITI 1211	Integrated Pest Management	2 cr
VITI 1293	Soils for Viticulture	3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC). Students must include the following courses:

BIOL 1431	General Biology I (Goal 3)	5 cr
BIOL 2457*	Microbiology (Goal 3)	4 cr
COMM 1430	Public Speaking (Goals 1,2)	3 cr
ENGL 1422	Practical Writing (Goal 1)	3 cr
POLS 1435	American Government and Politics (Goals 5,9)	3 cr

GRADUATION REQUIREMENT – 60 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (15 credits)

BIOL 1431	General Biology I (Goal 3)	5 cr
COMP 1120	Intro to Computer Applications	3 cr
MATH 1506	Beginning College Algebra	4 cr
VITI 1146*	Introduction to Enology	3 cr

Semester Two (15 credits)

COMM 1430	Public Speaking (Goals 1,2)	3 cr
VITI 1105	Molecular Principals of Grape & Wine	4 cr
VITI 1148*	Winery Sanitation	3 cr
VITI 1160*	Winery Equipment Operation	2 cr
VITI 1110	Introduction to Wine Microorganisms	3 cr

Semester Three (12 credits)

BIOL 2457*	Microbiology (Goal 3)	4 cr
ENGL 1422	Practical Writing (Goal 1)	3 cr
POLS 1435	American Government and Politics (Goals 5,9)	3 cr
VITI 1246*	Intermediate Enology – Harvest/Crush	2 cr

Semester Four (15 credits)

BUSN 1166	Business Communications	3 cr
VITI 1247*	Intermediate Enology – Post Harvest	2 cr
VITI 1259*	Cellar Operations Technology	2 cr
VITI 1266*	Sensory Evaluation	3 cr
VITI 1268*	Wine and Must Analysis	3 cr
	Elective	2 cr

Semester Five (3 credits)

VITI 1257*	Fall Wine Production Internship	3 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Transfer Opportunities

Viticulture and Enology Science and Technology Alliance (VESTA) is a consortium of colleges, including Central Lakes College, Northeast Iowa Community College, Missouri State University, Rend Lake (Ill.) Community College, and Redlands (Okla) Community College. See an advisor for further information about completing a bachelor’s degree.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Viticulture

Diploma (D275)

Technical Requirements 31
Total Credits 31

Program Description

The Viticulture Technology program provides a comprehensive examination of the field of viticulture (grape growing). The program provides the knowledge required to maintain vineyards in Minnesota and the Midwest, with specific attention given to varietal selection, soil preparation, pest management and marketing, as well as the science, agriculture and business skills necessary to succeed in Minnesota's rapidly growing viticulture business. The program includes fieldwork and practicums at local vineyards.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Manage all part-time and seasonal vineyard workers;
- Maintain records of all vineyard operation activities;
- Assist wine maker in crop load management, harvest coordination and execution;
- Monitor the vineyard regarding nutrient status, grape diseases, insect, fungus, weeds, and other pests;
- Maintain records of all viticultural monitoring activities;
- Practice IPM (Integrated Pest Management);
- Recommend and plan any large scale changes in vineyard plantings, specifically cultivars and selection of the site;
- Plan and assist in irrigation scheduling and operation;
- Plan and assist in general property maintenance;
- Operate vineyard machinery safely.

Career Opportunities

Vineyard managers oversee the growing and care of grapes. They develop a system of grape management that is appropriate for each vineyard. They decide how to manage planting, fertility, harvesting and pruning. They are heavily involved in varietal selection, site preparation, equipment maintenance and safety, first season establishment, vine growth development, trellis systems and pruning. They also are involved in pest management, soil quality and the overall impact on the environment.

Program Course Requirements

COMP 1120	Intro to Computer Applications	3 cr
VITI 1105	Molecular Principals of Grape and Wine	4 cr
VITI 1111	Introduction to Viticulture and Vineyard Establishment	3 cr
VITI 1112	Botanical Viticulture	4 cr
VITI 1117	Cold Climate Viticulture	1 cr
VITI 1146*	Introduction to Enology **OR**	
VITI 1266*	Sensory Evaluation	3 cr
VITI 1212*	Winter Viticulture Technology	2 cr
VITI 1214*	Spring Viticulture Technology	2 cr
VITI 1215*	Summer/Fall Viticulture Technology	2 cr
VITI 1211	Integrated Pest Management	2 cr
VITI 1213*	Regional Vineyard Management	2 cr
VITI 1293	Soils for Viticulture	3 cr

GRADUATION REQUIREMENT - 31 CREDITS

**Denotes Prerequisites*

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Transfer Opportunities

Viticulture and Enology Science and Technology Alliance (VESTA) is a consortium of colleges, including Central Lakes College, Northeast Iowa Community College, Missouri State University, Rend Lake (Ill.) Community College, and Redlands (Okla) Community College. See an advisor for further information about completing a bachelor's degree.

Semester Course Requirements

Semester One (12-15 credits)

VITI 1111	Introduction to Viticulture and Vineyard Establishment	3 cr
VITI 1112	Botanical Viticulture	4 cr
VITI 1211	Integrated Pest Management	2 cr
VITI 1293	Soils for Viticulture	3 cr
VITI 1146**	Introduction to Enology **OR**	3 cr
VITI 1266**	Sensory Evaluation	3 cr

Semester Two (14-17 credits)

COMP 1120	Intro to Computer Applications	3 cr
VITI1105	Molecular Principles of Grape and Wine	4 cr
VITI 1117	Cold Climate Viticulture	1 cr
VITI 1212*	Winter Viticulture Technology	2 cr
VITI 1213*	Regional Vineyard Management	2 cr
VITI 1214*	Spring Viticulture Technology	2 cr
VITI 1146**	Introduction to Enology **OR**	3 cr
VITI 1266**	Sensory Evaluation	3 cr

***VITI 1146 or 1266 may be taken either Fall or Spring Semester*

Semester Three (2 credits)

VITI 1215*	Summer/Fall Viticulture Technology	2 cr

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Staples Campus 2020-2021

Enology

Diploma (D277)

Technical Requirements 32
Total Credits 32

Program Description

The program provides the knowledge required to produce wines of the highest quality. Students learn the science, agriculture, and business skills necessary to enhance Minnesota's rapidly growing wine industry. Included is a foundation in chemistry and biology along with specific courses related to cultivar selection, soil preparation, cellar maintenance and marketing. The program is specifically designed to include fieldwork and laboratory practicums at local wineries.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Examine grape samples to ascertain sweetness and acidity of crop, and determine harvest time based off of this information;
- Select yeasts for fermentation and barrels for aging;
- Communicate with vineyard manager regarding crop load, harvest time, and other issues related to crop quality;
- Correct sugar and acid levels of must and wine if necessary;
- Oversee primary fermentation by punching down the grape skin cap, regulating fermentation temperature and the amount of time the skins are in contact with the must, and initiating malolactic fermentation;
- Supervise workers in crushing and pressing processes, or perform those duties themselves;
- Supervise cellar operations during secondary fermentation with tasks such as aging, topping off barrels, and clearing wine of fermentation residue;
- Direct and coordinate blending and bottling of wine, or perform those duties themselves.

Transfer Opportunities

Viticulture and Enology Science and Technology Alliance (VESTA) is a consortium of colleges, including Central Lakes College, Northeast Iowa Community College, Missouri State University, Rend Lake (Ill.) Community College, and Redlands (Okla) Community College. See an advisor for further information about completing a bachelor's degree.

Career Opportunities

Enologists oversee the production of wine. They inspect grapes and evaluate the crops to determine when to harvest and start wine production. They ensure proper crushing methods and techniques. Responsibilities depend on the size of the winery. The enologist is heavily involved in quality control. One may work with a laboratory technician if employed by a larger winery. Another may develop new wines or specialize in a specific wine in a larger winery.

Program Course Requirements

VITI 1105	Molecular Principles of Grape and Wine	4 cr
VITI 1146*	Introduction to Enology	3 cr
VITI 1148*	Winery Sanitation	3 cr
VITI 1160*	Winery Equipment Operation	2 cr
VITI 1110	Introduction to Wine Microorganisms	3 cr
VITI 1246*	Intermediate Enology – Harvest/Crush	2 cr
VITI 1247*	Intermediate Enology – Post Harvest	2 cr
VITI 1257*	Fall Wine Production Internship	3 cr
VITI 1259*	Cellar Operations Technology	2 cr
VITI 1266*	Sensory Evaluation	3 cr
VITI 1268*	Wine and Must Analysis	3 cr

Students must choose a minimum of two (2) credits from the following courses:

VITI 1111	Introduction to Viticulture and Vineyard Establishment	3 cr
VITI 1147*	Introduction to Fruit Wine Production	2 cr
VITI 1211	Integrated Pest Management	2 cr
VITI 1293	Soils for Viticulture	3 cr

GRADUATION REQUIREMENT – 32 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (12 credits)

VITI 1105	Molecular Principals of Grape & Wine	4 cr
VITI 1110	Introduction to Wine Microorganisms	3 cr
VITI 1146*	Introduction to Enology	3 cr
	Elective	2 cr

Semester Two (17 credits)

VITI 1148*	Winery Sanitation	3 cr
VITI 1160*	Winery Equipment Operation	2 cr
VITI 1246*	Intermediate Enology – Harvest/Crush	2 cr
VITI 1247*	Intermediate Enology – Post Harvest	2 cr
VITI 1259*	Cellar Operations Technology	2 cr
VITI 1266*	Sensory Evaluation	3 cr
VITI 1268*	Wine and Must Analysis	3 cr

Semester Three (3 credits)

VITI 1257*	Fall Wine Production Internship	3 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Welding and Fabrication, A.A.S

Associate of Applied Science Degree (A380)

Technical Requirements 45
MN Transfer Curriculum 15
Total Credits 60

Program Description

The Welding and Fabrication program is designed to create a foundation of skills and knowledge, leading to a career in welding and fabrication. Instructors bring a wealth of industry experience and professionalism to the program. The welding lab is state-of-the-art, and the area is spacious, clean and well-ventilated, and features the latest equipment for a superior training environment. At CLC, welding students are prepared with techniques that will elevate their skill set above the average student. CLC students develop skills in welding processes, cutting processes, metallurgy, fabrication, blueprint reading, and math. Upon completion of the program, students will be prepared to take welding certification and job entry tests.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply proper industry safety standards;
- Apply welding and cutting safety procedures;
- Identify proper welding consumables and fluxes for a selected process;
- Perform a variety of welding processes using appropriate equipment and setup procedures and for GMAW, SMAW, GTAW, and OAW;
- Apply principles of basic welding fundamentals, symbols, blueprints and welding metallurgy;
- Design and execute fabrication projects to specifications;
- Read and interpret fabrication blueprints and drawings;
- Demonstrate effective written and oral communication skills.

Transfer Opportunities

Some welding courses can be transferred to a variety of the four-year colleges. Because each college has its own requirements, check with an advisor about transferability.

Career Opportunities

Upon graduation, welding students will be prepared for careers in the construction, pipe line, metal fabrication, manufacturing, repair, and specialty/custom job fields. Jobs that utilize arc welding, gas metal arc welding, flux core, TIG, oxyacetylene cutting, plasma cutting, and general fabrication are examples of the choices available to graduates. The welding and fabrication field is ideal for the person who likes hands on work. Common career titles include production welder, welder fabrication person, metal fabrication person, shop foreman in fabrication, welding shop foreman, welding shop owner or manager, welding supply salesperson, and welding product salesperson.

Program Course Requirements

CCST 1530	Employment Strategies	3 cr
WELD 1100	Introduction to Welding	2 cr
WELD 1101	Shielded Metal ARC Welding I	2 cr
WELD 1102*	Shielded Metal ARC Welding II	3 cr
WELD 1111	Blueprint Reading I	2 cr
WELD 1112*	Blueprint Reading II (Welding Symbols)	2 cr
WELD 1113*	Blueprint Reading III (CAD Systems)	2 cr
WELD 1115	Gas Tungsten ARC Welding I	2 cr
WELD 1116*	Gas Tungsten ARC Welding II	3 cr
WELD 1117	Gas Metal ARC Welding I	2 cr
WELD 1118*	Gas Metal ARC Welding II	3 cr
WELD 1120*	Fabrication Design and Construction	4 cr
WELD 1134*	Welding Qualification	3 cr
WELD 1140	Welding Trade Knowledge	4 cr
WELD 1150*	Advanced Metal Fabrication/ CNC Automation	4 cr
WELD 1160	Welding Theory	4 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC).

Minnesota Transfer Curriculum courses .....15 cr

GRADUATION REQUIREMENT - 60 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (18 credits)

WELD 1100	Introduction to Welding	2 cr
WELD 1101	Shielded Metal ARC Welding I	2 cr
WELD 1111	Blueprint Reading I	2 cr
WELD 1115	Gas Tungsten ARC Welding I	2 cr
WELD 1117	Gas Metal ARC Welding I	2 cr
WELD 1140	Welding Trade Knowledge	4 cr
WELD 1160	Welding Theory	4 cr

Semester Two (18 credits)

CCST 1530	Employment Strategies	3 cr
WELD 1102*	Shielded Metal ARC Welding II	3 cr
WELD 1112*	Blueprint Reading II (Welding Symbols)	2 cr
WELD 1116*	Gas Tungsten ARC Welding II	3 cr
WELD 1118*	Gas Metal ARC Welding II	3 cr
WELD 1150*	Advanced Metal Fabrication/CNC Automation	4 cr

Semester Three First Year Summer (9 credits)

WELD 1113*	Blueprint Reading III (CAD Systems)	2 cr
WELD 1120*	Fabrication Design and Construction	4 cr
WELD 1134*	Welding Qualification	3 cr

Semester Four (15 credits)

	MnTC	15 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: Cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: Cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Welding and Fabrication

Diploma (D380)

Technical Requirements 45
Total Credits 45

Program Description

The Welding and Fabrication program is designed to create a foundation of skills and knowledge, leading to a career in welding and fabrication. Instructors bring a wealth of industry experience and professionalism to the program. The welding lab is state-of-the-art, and the area is spacious, clean and well-ventilated, and features the latest equipment for a superior training environment. At CLC, welding students are prepared with techniques that will elevate their skill set above the average student. CLC students develop skills in welding processes, cutting processes, metallurgy, fabrication, blueprint reading, and math. Upon completion of the program, students will be prepared to take welding certification and job entry tests.

Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply proper industry safety standards;
- Apply welding and cutting safety procedures;
- Identify proper welding consumables and fluxes for a selected process;
- Perform a variety of welding processes using appropriate equipment and setup procedures and for GMAW, SMAW, GTAW, and OAW;
- Apply principles of basic welding fundamentals, symbols, blueprints and welding metallurgy;
- Design and execute fabrication projects to specifications;
- Read and interpret fabrication blueprints and drawings; and
- Demonstrate effective written and oral communication skills.

Transfer Opportunities

Some welding courses can be transferred to a variety of the four-year colleges. Because each college has its own requirements, check with an advisor about transferability.

Career Opportunities

Upon graduation, welding students will be prepared for careers in the construction, pipe line, metal fabrication, manufacturing, repair, and specialty/custom job fields. Jobs that utilize arc welding, gas metal arc welding, flux core, TIG, oxyacetylene cutting, plasma cutting, and general fabrication are examples of the choices available to graduates. The welding and fabrication field is ideal for the person who likes hands on work. Common career titles include production welder, welder fabrication person, metal fabrication person, shop foreman in fabrication, welding shop foreman, welding shop owner or manager, welding supply salesperson, and welding product salesperson.

Program Course Requirements

CCST 1530	Employment Strategies	3 cr
WELD 1100	Introduction to Welding	2 cr
WELD 1101	Shielded Metal ARC Welding I	2 cr
WELD 1102*	Shielded Metal ARC Welding II	3 cr
WELD 1111	Blueprint Reading I	2 cr
WELD 1112*	Blueprint Reading II (Welding Symbols)	2 cr
WELD 1113*	Blueprint Reading III (CAD Systems)	2 cr
WELD 1115	Gas Tungsten ARC Welding I	2 cr
WELD 1116*	Gas Tungsten ARC Welding II	3 cr
WELD 1117	Gas Metal ARC Welding I	2 cr
WELD 1118*	Gas Metal ARC Welding II	3 cr
WELD 1120*	Fabrication Design and Construction	4 cr
WELD 1134*	Welding Qualification	3 cr
WELD 1140	Welding Trade Knowledge	4 cr
WELD 1150*	Advanced Metal Fabrication/CNC Automation	4 cr
WELD 1160	Welding Theory	4 cr

GRADUATION REQUIREMENT - 45 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

Semester One (18 credits)

WELD 1100	Introduction to Welding	2 cr
WELD 1101	Shielded Metal ARC Welding I	2 cr
WELD 1111	Blueprint Reading I	2 cr
WELD 1115	Gas Tungsten ARC Welding I	2 cr
WELD 1117	Gas Metal ARC Welding I	2 cr
WELD 1140	Welding Trade Knowledge	4 cr
WELD 1160	Welding Theory	4 cr

Semester Two (18 credits)

CCST 1530	Employment Strategies	3 cr
WELD 1102*	Shielded Metal ARC Welding II	3 cr
WELD 1112*	Blueprint Reading II (Welding Symbols)	2 cr
WELD 1116*	Gas Tungsten ARC Welding II	3 cr
WELD 1118*	Gas Metal ARC Welding II	3 cr
WELD 1150*	Advanced Metal Fabrication/CNC Automation	4 cr

Semester Three First Year Summer (9 credits)

WELD 1113*	Blueprint Reading III (CAD Systems)	2 cr
WELD 1120*	Fabrication Design and Construction	4 cr
WELD 1134*	Welding Qualification	3 cr

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a “C” or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: Cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: Cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Central Lakes College, Brainerd Campus 2020-2021

Minnesota Transfer Curriculum, A.A.S.

Associate of Applied Science Degree (AAS)

- These requirements apply to new students, and students who have been absent from this college one academic year or longer.
- An associate in applied science degree requires a minimum of 15 general education credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum.
- 15 credits must be earned at Central Lakes College to be eligible for an Associate in Applied Science Degree.
- In some cases programs may have specific general education requirements. Please check with your advisor for details.
- Classes may meet requirements for more than one goal area, but credit will not be awarded for any course twice.

Minnesota Transfer Curriculum Goals

GOAL 1 – Communications

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GOAL 2 – Critical Thinking

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GOAL 3 – Natural Sciences

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GOAL 4 – Math/Logical Reasoning

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GOAL 5 – History/Social Behavioral Sciences

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GOAL 6 – Humanities and Fine Arts

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GOAL 7 – Human Diversity

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GOAL 8 – Global Perspective

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GOAL 9 – Ethic and Civic Responsibility

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GOAL 10 – People and the Environment

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GOAL 1 - Communications

AMSL 1420 American Sign Language Cultural Immersion Travel (2 cr)	***1,8***	AMSL 2414 Conversational ASL (1 cr)	***1***
COMM 1410 Introduction to Communication (3 cr)	***1***	COMM 1420 Interpersonal Communication (3 cr)	***1***
COMM 1422* Honors Interpersonal Communication (3 cr)	***1***	COMM 1430 Public Speaking (3 cr)	***1,2***
COMM 2420 Intercultural Communication (3 cr)	***1,7***	COMM 2422* Honors Intercultural Communication (3 cr)	***1,7***
ENGL 1410 Composition I (4 cr)	***1***	ENGL 1411 Composition II (4 cr)	***1***
ENGL 1420* Honors Composition I (4 cr)	***1***	ENGL 1421* Honors Composition II (4 cr)	***1,9***
ENGL 1422 Practical Writing (3 cr)	***1,2***	PHIL 1421 Critical Thinking (3 cr)	***1,2***
PHIL 1422* Honors Critical Thinking (3 cr)	***1,2***	THTR 1461 Acting I (3 cr)	***1***

GOAL 2 - Critical Thinking

COMM 1430 Public Speaking (3 cr)	***1,2***	COMM 1450 Introduction to Mass Communication (3 cr)	***2,9***
ENGL 1422 Practical Writing (3 cr)	***1,2***	ENGL 2450 World Literature (3 cr)	***2,8***
GEOG 1430 Introduction to Geographic Information Systems (3 cr)	***2,5***	MATH 1461* Honors Introduction to Statistics (4 cr)	***2,4***
PHIL 1417 Immortality and the Afterlife (3 cr)	***2,6***	PHIL 1421 Critical Thinking (3 cr)	***1,2***
PHIL 1422* Honors Critical Thinking (3 cr)	***1,2***	PHIL 1460 Logic (3 cr)	***2,4***
PHIL 2410 Introduction to Philosophy (3 cr)	***2,6***	PSYC 2421 General Psychology (4 cr)	***2,5***
PSYC 2423* Honors General Psychology (4 cr)	***2,5***	SOCL 1401 Introduction to Sociology (3 cr)	***2, 5***

GOAL 3 - Natural Sciences

BIOL 1404 Human Biology (3 cr)	***3***	BIOL 1411 Concepts of Biology (3 cr)	***3***
BIOL 1415 Environmental Biology (4 cr)	***3,10***	BIOL 1420 Nutrition (3 cr)	***3***
BIOL 1431 General Biology I (5 cr)	***3***	BIOL 1432 General Biology II (5 cr)	***3,10***
BIOL 2411 Biology of Women (3 cr)	***3,7***	BIOL 2415 General Ecology (4 cr)	***3,10***
BIOL 2420 Genetics (4 cr)	***3***	BIOL 2457 Microbiology (4 cr)	***3***
BIOL 2467 Anatomy & Physiology I (4 cr)	***3***	BIOL 2468 Anatomy & Physiology II (4 cr)	***3***
CHEM 1407 Life Science Chemistry (4 cr)	***3***	CHEM 1410 Environmental Chemistry (3 cr)	***3,10***
CHEM 1414 Fundamentals of Chemistry (4 cr)	***3***	CHEM 1424 Chemical Principles I (5 cr)	***3***
CHEM 1425 Chemical Principles II (5 cr)	***3***	CHEM 2472 Organic Chemistry I (5 cr)	***3***
CHEM 2473 Organic Chemistry II (5 cr)	***3***	ESCI 1400 Geology of National Parks (3 cr)	***3,10***
ESCI 1405 Astronomy (4 cr)	***3***	ESCI 1421 Minnesota Geology (3 cr)	***3***
ESCI 1444 Natural Disasters (3 cr)	***3,10***	ESCI 1451 Oceanography (3 cr)	***3,10***
ESCI 1452 Oceanography Lab (1 cr)	***3,10***	ESCI 1454 Planet Earth (4 cr)	***3,10***
ESCI 1455* Honors Earth Science and the Environment (4 cr)	***3,10***	ESCI 1460 Exploring the Edge of Space (3 cr)	***3***
ESCI 1461* Honors Exploring the Edge of Space (4 cr)	***3***	ESCI 1480 Flight to Edge of Space: Learning and Experimentation (2 cr)	***3***
PHYS 1401 College Physics I (4 cr)	***3***	PHYS 1402 College Physics II (4 cr)	***3***
PHYS 1407 Principles of Physics (3 cr)	***3***	PHYS 1411 Classical Physics I (5 cr)	***3***
PHYS 1412 Classical Physics II (5 cr)	***3***	PHYS 1425* Honors Astronomy/Physics (4 cr)	***3***
PHYS 1430 Concepts of Physics: A Universe of Hidden Charm (3 cr)	***3***	PHYS 1480 Flight to Edge of Space: Electronic, Mechanical, and Navigational Systems (2 cr)	***3***

GOAL 4 - Mathematical or Logical Reasoning

MATH 1441 Concepts in Mathematics (3 cr)	***4***	MATH 1460 Intro to Statistics (4 cr)	***4***
MATH 1461* Honors Introduction to Statistics (4 cr)	***2,4***	MATH 1470 College Algebra (3 cr)	***4***
MATH 1472 Precalculus (5 cr)	***4***	MATH 1477 Calculus I (5 cr)	***4***
MATH 1478 Calculus II (5 cr)	***4***	MATH 1480* Honors Calculus I (5 cr)	***4***
MATH 2457 Linear Algebra (3 cr)	***4***	MATH 2458 Multivariable Calculus (4 cr)	***4***
MATH 2459 Differential Equations (4 cr)	***4***	PHIL 1460 Logic (3 cr)	***2,4***

GOAL 5 - History and Social and Behavioral Sciences

ANTH 1457 Cultural Anthropology (3 cr)	***5,8***	ANTH 2411 Cultures of American Indians (3 cr)	***5,7***
ECON 1450 The American Economy (3 cr)	***5***	ECON 1451* Honors American Economy (3 cr)	***5***

Honors courses

ECON 2401 Principles of Economics-Macroeconomics (3 cr)	***5***	ECON 2402 Principles of Economics-Microeconomics (3 cr)	***5***
ENVR 1400 Introduction to Environmental Studies (3 cr)	***5,10***	GEOG 1400 Physical Geography (3 cr)	***5,10***
GEOG 1410 Maps and Places (3 cr)	***5,8***	GEOG 1421 World Regional Geography (3 cr)	***5,8***
GEOG 1430 Introduction to Geographic Information Systems (3 cr)	***2,5***	GEOG 1459 Cultural Geography (3 cr)	***5,8***
GEOG 1460* Honors Cultural Geography (3 cr)	***5,8***	GLST 1401 Introduction to Global Studies (3 cr)	***5,8***
GLST 1491 Global Studies Experience - International Travel (1-4 cr)	***5,8***	HIST 1412 World History I, From the Beginning to 1500 (3 cr)	***5,8***
HIST 1413 World History II, 1500 to Present (3 cr)	***5,8***	HIST 1472 U.S. History to 1865 (3 cr)	***5,7***
HIST 1473 U.S. History Since 1865 (3 cr)	***5,7***	HIST 1475* Honors U.S. History 1865 to Present (3 cr)	***5,7***
HIST 2404 Minnesota History (3 cr)	***5***	HIST 2411 American Indian History (3 cr)	***5,7***
HIST 2420 History of Women in the U.S. (3 cr)	***5,7***	POLS 1430 Introduction to Political Science (3 cr)	***5,9***
POLS 1435 American Government and Politics (3 cr)	***5,9***	POLS 1439 State and Local Government (3 cr)	***5,9***
POLS 1440 Society and Law (3 cr)	***5,9***	POLS 2401 Federal Indian Policy (3 cr)	***5***
POLS 2402 Tribal Government (3 cr)	***5,9***	POLS 2450 International Relations (3 cr)	***5,8***
PSYC 1423 Positive Psychology: The Science of Well-Being (3 cr)	***5,9***	PSYC 1425 Environmental Psychology (3 cr)	***5,10***
PSYC 2421 General Psychology (4 cr)	***2,5***	PSYC 2423* Honors General Psychology (4 cr)	***2,5***
PSYC 2427 Statistics for Psychology (4 cr)	***5***	PSYC 2431 Human Development (3 cr)	***5***
PSYC 2435 Educational Psychology (3 cr)	***5,7***	PSYC 2441 Social Psychology (3 cr)	***5,7***
PSYC 2470 Abnormal Psychology (3 cr)	***5,7***	SOCL 1401 Introduction to Sociology (3 cr)	***2, 5***
SOCL 1403* Honors Introduction to Sociology (3 cr)	***5,8***	SOCL 1472 Sociology of the Family (3 cr)	***5***
SOCL 2405 Criminology (3 cr)	***5***	SOCL 2411 Social Problems (3 cr)	***5,9***
SOCL 2422 Culture and Environment (3 cr)	***5,10***	SOCL 2480 Sociology of Death and Dying (3 cr)	***5***
SOCL 2481 Race, Ethnicity and Oppression (3 cr)	***5,7***	SPAN 2420 Many Faces of Mexico (3 cr)	***5,7***
SPAN 2425 Cultures of Latin America (3 cr)	***5,8***	THTR 2450 Theatre History (3 cr)	***5,8***
WMST 1400 Introduction to Women's Studies (3 cr)	***5,7***	WMST 2420 Women & Religion (3 cr)	***5,7***

GOAL 6 - Humanities and Fine Arts

AMSL 2420 Deaf Culture (3 cr)	***6,7***	ARTS 1401 Black and White Photography (3 cr)	***6***
ARTS 1403 Color Photography (3 cr)	***6***	ARTS 1420 The Art of Digital Photography (3 cr)	***6***
ARTS 1422 Introduction to Cinematography (3 cr)	***6***	ARTS 1425 Introduction to Graphic Design (3 cr)	***6***
ARTS 1458 Introduction to Drawing (3 cr)	***6***	ARTS 1459 2-D Design (3 cr)	***6***
ARTS 1461 3-D Design (3 cr)	***6***	ARTS 1468 Introduction to Painting (3 cr)	***6***
ARTS 1470 Art Appreciation (3 cr)	***6***	ARTS 1487 Ceramics: Beginning Hand Building (3 cr)	***6***
ARTS 1488 Ceramics: Beginning Throwing (3 cr)	***6***	ARTS 1489 Intermediate Ceramics (3 cr)	***6***
ARTS 2411 Introduction to Digital Imaging (3 cr)	***6***	ARTS 2486 Art History/Ancient (3 cr)	***6***
ARTS 2487 Art History/Modern (3 cr)	***6***	ENGL 1450 Introduction to Humanities (3 cr)	***6,8***
ENGL 1452 Classical Mythology (3 cr)	***6***	ENGL 1454 Film Appreciation (3 cr)	***6***
ENGL 1456 Environmental Literature (3 cr)	***6,10***	ENGL 1460* Honors Literature: The Great Books (3 cr)	***6***
ENGL 1463 Introduction to Literature (3 cr)	***6,7***	ENGL 1468 Poetry (3 cr)	***6***
ENGL 1470 Introduction to Science Fiction and Fantasy Literature (3 cr)	***6,9***	ENGL 1477 Authors in Focus (1-3 cr)	***6***
ENGL 1478 Authors in Focus (1-3 cr)	***6***	ENGL 2451 Women in Literature (3 cr)	***6***
ENGL 2455 Native Indian Literature (3 cr)	***6,7***	ENGL 2460 Survey of American Literature (3 cr)	***6,7***
ENGL 2470 Creative Nonfiction (3 cr)	***6***	ENGL 2483 Creative Writing (3 cr)	***6***
GERM 2401 Intermediate German I (4 cr)	***6,8***	GERM 2402 Intermediate German II (4 cr)	***6,8***
MUSC 1403 American Popular Music (3 cr)	***6,7***	MUSC 1405 Central Lakes Jazz Orchestra (0-1 cr)	***6***
MUSC 1408 Central Lakes Wind Symphony (0-1 cr)	***6***	MUSC 1415 Brass Ensemble (0-1 cr)	***6***
MUSC 1418 Woodwind Ensemble (0-1 cr)	***6***	MUSC 1419 Percussion Ensemble (1 cr)	***6***
MUSC 1420 String Orchestra (0-1 cr)	***6***	MUSC 1421 Cantare' Concert Chorale (1 cr)	***6***
MUSC 1431 CLC Choir (1 cr)	***6***	MUSC 1441 Applied Music Lessons - Guitar (1 cr)	***6***
MUSC 1450 Music in World Cultures (3 cr)	***6,8***	MUSC 1452 Intro to Music Industry (3 cr)	***6,9***
MUSC 1453 Music Production: Introduction to Pro Tools (3 cr)	***6***	MUSC 1454 Advanced Audio Production (3 cr)	***6***

****Honors courses***

MUSC 1455 Voice Training (2 cr)	***6***
MUSC 1459 Musicology (3 cr)	***6***
MUSC 1468 Applied Music Lessons - Strings (1 cr)	***6***
MUSC 1477 Applied Music Lessons - Bass Guitar (1 cr)	***6***
MUSC 1485 Applied Music Lessons - Percussion (1 cr)	***6***
MUSC 2401 Evolution of Jazz (3 cr)	***6,7***
PHIL 1415 Philosophy and Popular Culture (3 cr)	***6***
PHIL 2410 Introduction to Philosophy (3 cr)	***2,6***
PHIL 2421* Honors Ethics (3 cr)	***6,9***
PHIL 2430 Contemporary Moral Problems (3 cr)	***6,9***
SPAN 2404 Intermediate Spanish II (4 cr)	***6,8***
THTR 1443 Stage to Screen: Plays that Become Movies (3 cr)	***6***
THTR 1451 Introduction to Theatre (3 cr)	***6,8***
THTR 1453 Theatre Costuming (3 cr)	***6***
THTR 1466 Acting Lab (1 cr)	***6***
THTR 1478 Technical Theatre (3 cr)	***6***
THTR 1481 The Theatre Experience-New York (1-3 cr)	***6***
THTR 1483* Honors Theatre Experience (3 cr)	***6,7***
THTR 2410 Children's Theatre (3 cr)	***6***
THTR 2491 Theatre Independent Study (1-3 cr)	***6***

MUSC 1457 Music Appreciation (3 cr)	***6***
MUSC 1464 Applied Music Lessons - Brass (1 cr)	***6***
MUSC 1475 Applied Music Lessons - Woodwind (1 cr)	***6***
MUSC 1481 Applied Music Lessons - Piano (1 cr)	***6***
MUSC 1491 Applied Music Lessons - Voice (1 cr)	***6***
PHIL 1411 World Religions (3 cr)	***6,8***
PHIL 1417 Immortality and the Afterlife (3 cr)	***2,6***
PHIL 2420 Ethics (3 cr)	***6,9***
PHIL 2422 Medical Ethics (3 cr)	***6,9***
SPAN 2401 Intermediate Spanish I (4 cr)	***6,8***
THTR 1442 Improvisation (3 cr)	***6***
THTR 1445 Acting for the Camera (3 cr)	***6***
THTR 1452 Stage Make-up (3 cr)	***6***
THTR 1462 Acting II (3 cr)	***6***
THTR 1471 Theatre Production Lab (1 cr)	***6***
THTR 1480 The Theatre Experience (1-3 cr)	***6***
THTR 1482 The Theatre Experience-London (1-3 cr)	***6,8***
THTR 1496 Summer Theatre Workshop (3 cr)	***6***
THTR 2441 Directing for the Theatre (3 cr)	***6***

GOAL 7 - Human Diversity

AMSL 2420 Deaf Culture (3 cr)	***6,7***
BIOL 2411 Biology of Women (3 cr)	***3,7***
COMM 2422* Honors Intercultural Communication (3 cr)	***1,7***
ENGL 2455 Native Indian Literature (3 cr)	***6,7***
HIST 1472 U.S. History to 1865 (3 cr)	***5,7***
HIST 1475* Honors U.S. History 1865 to Present (3 cr)	***5,7***
HIST 2420 History of Women in the U.S. (3 cr)	***5,7***
MUSC 2401 Evolution of Jazz (3 cr)	***6,7***
PSYC 2441 Social Psychology (3 cr)	***5,7***
SOCL 2481 Race, Ethnicity and Oppression (3 cr)	***5,7***
THTR 1483* Honors Theatre Experience (3 cr)	***6,7***
WMST 2420 Women & Religion (3 cr)	***5,7***

ANTH 2411 Cultures of American Indians (3 cr)	***5,7***
COMM 2420 Intercultural Communication (3 cr)	***1,7***
ENGL 1463 Introduction to Literature (3 cr)	***6,7***
ENGL 2460 Survey of American Literature (3 cr)	***6,7***
HIST 1473 U.S. History Since 1865 (3 cr)	***5,7***
HIST 2411 American Indian History (3 cr)	***5,7***
MUSC 1403 American Popular Music (3 cr)	***6,7***
PSYC 2435 Educational Psychology (3 cr)	***5,7***
PSYC 2470 Abnormal Psychology (3 cr)	***5,7***
SPAN 2420 Many Faces of Mexico (3 cr)	***5,7***
WMST 1400 Introduction to Women's Studies (3 cr)	***5,7***

GOAL 8 - Global Perspective

AMSL 1410 American Sign Language I (4 cr)	***8***
AMSL 1420 American Sign Language Cultural Immersion Travel (2 cr)	***1,8***
AMSL 2412 American Sign Language IV (4 cr)	***8***
ENGL 1450 Introduction to Humanities (3 cr)	***6,8***
GEOG 1410 Maps and Places (3 cr)	***5,8***
GEOG 1459 Cultural Geography (3 cr)	***5,8***
GERM 1401 Beginning German I (4 cr)	***8***
GERM 2401 Intermediate German I (4 cr)	***6,8***
GLST 1401 Introduction to Global Studies (3 cr)	***5,8***
GLST 1491 Global Studies Experience - International Travel (1-4 cr)	***5,8***
GLST 2401 Global Studies Capstone (1-3 cr)	***8***
HIST 1413 World History II, 1500 to Present (3 cr)	***5,8***
OJIB 1401 Beginning Ojibwe I (4 cr)	***8***
OJIB 2401 Intermediate Ojibwe I (4 cr)	***8***
PHIL 1411 World Religions (3 cr)	***6,8***
SOCL 1403* Honors Introduction to Sociology (3 cr)	***5,8***

AMSL 1412 American Sign Language II (4 cr)	***8***
AMSL 2410 American Sign Language III (4 cr)	***8***
ANTH 1457 Cultural Anthropology (3 cr)	***5,8***
ENGL 2450 World Literature (3 cr)	***2,8***
GEOG 1421 World Regional Geography (3 cr)	***5,8***
GEOG 1460* Honors Cultural Geography (3 cr)	***5,8***
GERM 1402 Beginning German II (4 cr)	***8***
GERM 2402 Intermediate German II (4 cr)	***6,8***
GLST 1421* Honors Global Studies: Nobel Conference Experience (3 cr)	***8***
GLST 1492 Global Studies Cultural Immersion Experience (1-3 cr)	***8***
HIST 1412 World History I, From the Beginning to 1500 (3 cr)	***5,8***
MUSC 1450 Music in World Cultures (3 cr)	***6,8***
OJIB 1402 Beginning Ojibwe II (4 cr)	***8***
OJIB 2402 Intermediate Ojibwe II (4 cr)	***8***
POLS 2450 International Relations (3 cr)	***5,8***
SPAN 1401 Beginning Spanish I (4 cr)	***8***

Honors courses

SPAN 1402 Beginning Spanish II (4 cr)	***8***	SPAN 2401 Intermediate Spanish I (4 cr)	***6,8***
SPAN 2404 Intermediate Spanish II (4 cr)	***6,8***	SPAN 2425 Cultures of Latin America (3 cr)	***5,8***
THTR 1451 Introduction to Theatre (3 cr)	***6,8***	THTR 1482 The Theatre Experience-London (1-3 cr)	***6,8***
THTR 2450 Theatre History (3 cr)	***5,8***		

GOAL 9 - Ethic and Civic Responsibility

COMM 1450 Introduction to Mass Communication (3 cr)	***2,9***	ENGL 1421* Honors Composition II (4 cr)	***1,9***
ENGL 1470 Introduction to Science Fiction and Fantasy Literature (3 cr)	***6,9***	MUSC 1452 Intro to Music Industry (3 cr)	***6,9***
PHIL 2420 Ethics (3 cr)	***6,9***	PHIL 2421* Honors Ethics (3 cr)	***6,9***
PHIL 2422 Medical Ethics (3 cr)	***6,9***	PHIL 2430 Contemporary Moral Problems (3 cr)	***6,9***
POLS 1430 Introduction to Political Science (3 cr)	***5,9***	POLS 1435 American Government and Politics (3 cr)	***5,9***
POLS 1439 State and Local Government (3 cr)	***5,9***	POLS 1440 Society and Law (3 cr)	***5,9***
POLS 2402 Tribal Government (3 cr)	***5,9***	PSYC 1423 Positive Psychology: The Science of Well-Being (3 cr)	***5,9***
SOCL 2411 Social Problems (3 cr)	***5,9***		

GOAL 10 - People and the Environment

BIOL 1415 Environmental Biology (4 cr)	***3,10***	BIOL 1432 General Biology II (5 cr)	***3,10***
BIOL 2415 General Ecology (4 cr)	***3,10***	CHEM 1410 Environmental Chemistry (3 cr)	***3,10***
ENGL 1456 Environmental Literature (3 cr)	***6,10***	ENVR 1400 Introduction to Environmental Studies (3 cr)	***5,10***
ESCI 1400 Geology of National Parks (3 cr)	***3,10***	ESCI 1444 Natural Disasters (3 cr)	***3,10***
ESCI 1451 Oceanography (3 cr)	***3,10***	ESCI 1452 Oceanography Lab (1 cr)	***3,10***
ESCI 1454 Planet Earth (4 cr)	***3,10***	ESCI 1455* Honors Earth Science and the Environment (4 cr)	***3,10***
GEOG 1400 Physical Geography (3 cr)	***5,10***	PSYC 1425 Environmental Psychology (3 cr)	***5,10***
SOCL 2422 Culture and Environment (3 cr)	***5,10***		

Honors courses

Course	Title	Description	Credit	Prerequisite
ACCT 2011	Accounting Principles I (Financial)	This course serves as an introduction to the generally accepted accounting principles used to identify, measure, and communicate useful economic information to users. Specific topics include accrual accounting, financial statements, accounting systems, merchandise accounting, internal control, and accounting for assets, liabilities, and owners' capital. International issues and ethics are incorporated into appropriate topics.	4	NG Accuplacer Reading Score 237+
ACCT 2012	Accounting Principles II (Managerial)	This course continues the study of generally accepted accounting principles used to identify, measure, and communicate useful economic information to users. Specific topics include the statement of cash flows and financial statement analysis. In addition, a major portion of this course focuses on the informational needs of management for strategic decision-making. Topics include cost-volume-profit analysis, product costing, cost management, cost behavior, relevant information, performance measurement, and capital budgeting. Ethics are incorporated into projects and discussions throughout the course.	4	ACCT 2011
ACCT 2114	Payroll Accounting	This course is designed to develop an understanding of the various federal and state laws pertaining to the computation and payment of employment compensation. Topics include employment recordkeeping requirements, preparation of the payroll register, individual earnings records, tax reports and other forms required by government agencies.	3	none
ACCT 2121	Intermediate Accounting I	This course is an in-depth study of financial accounting theories, concepts, and practices. It provides a review of the accounting process, the conceptual framework of accounting, and the financial statements. Topics covered in detail include cash and receivables, inventories, property, plant and equipment, and intangible assets.	4	ACCT 2012
ACCT 2123	Intermediate Accounting II	This course is a continuation of the comprehensive study of financial accounting theory, concepts, and practices, with particular emphasis on current and long-term liabilities, stockholders' equity, earnings per share, income taxes, pensions, leases, and the statement of cash flows. Additional related topics will also be presented.	4	ACCT 2121
ACCT 2137	Accounting for Governmental and Not-for-Profit Entities	This course focuses on the application of generally accepted accounting principles to state and local governmental units, health care organizations, and other not-for-profit entities. Topics covered include the governmental fund accounting cycle, budget considerations, financial statement preparation and analysis, and special accounting considerations for health care and other not-for-profit organizations.	3	ACCT 2012
ACCT 2138	Computerized Accounting Software	This course is an introduction to computerized accounting software. During the course, students complete the accounting cycle using an up-to-date version of a popular small business accounting software package. By means of a practical, hands-on approach, students apply abstract accounting principles to concrete accounting procedures. Students record cash sales and deposits, prepare invoices, enter bills, write checks, maintain inventory, process payroll, reconcile accounts, generate financial statements and other managerial reports, close the period, and manage vital data lists.	3	ACCT 2011
ACCT 2140	Accounting Applications	Students will apply various skills, knowledge and tools when analyzing and solving hands-on accounting application problems. This course will train students how to deliver timely, accurate accounting information that is relevant and essential for business making decisions.	3	none
ACCT 2161	Cost Accounting I	This course provides theoretical and practical knowledge of the fundamentals of a cost accounting information system, including cost behavior, cost-volume-profit relationships, costing techniques in service and manufacturing sectors, budgeting, variance analysis and the creation of pro-forma financial statements to evaluate a company's performance. Management use cost accounting information for decision making.	3	ACCT 2012
ACCT 2165	Income Tax	This course is an introductory course in the study of U.S. taxation policy, the application of that policy to calculate the correct tax position, and to prepare a Federal Form 1040 and accompanying schedules along with a MN income tax return in good form for various taxpayers.	4	ACCT 2011
ACCT 2170	Tax Updates with Tax Software	Students will demonstrate an understanding of the most current tax laws and prepare individual income tax returns using TaxWise Software. Students will be expected to achieve IRS certification at the advanced level using interactive training modules and volunteer to prepare individual tax returns at VITA Sites of their choosing within a 60-mile radius of Central Lakes College- Brainerd campus.	1	ACCT 2165
ACCT 2350	Accounting Internship	The accounting internship is designed to provide the student with a purposeful occupational experience. Since each internship is an individualized experience, a training plan is specifically created for each student in conjunction with the training site to which the student is assigned.	1-9	instructor's consent
ACCT 2370	Special Problems in Accounting	This course allows accounting students to study accounting types of problems relevant for their own career objectives. Students will meet with their instructor to set up their own course of study, and may satisfy course requirements through industry seminars, outside training experiences or individual research.	1-3	instructor's consent
AGRI 1100	Introduction to Precision Agriculture	This course will prepare students for the advanced technologies and theories that are emerging in the agriculture industry. Students will develop skills in geographic information systems, global positioning systems, yield monitoring concepts, and remote sensing technologies. Classroom experiences will enable students to combine technologies needed to meet the demanding needs of the agriculture industry.	2	none
AGRI 2150	Agricultural Studies Internship	The agricultural studies internship is designed to provide the student with a purposeful occupational experience. Since each internship is an individualized experience, a training plan is specifically created for each student in conjunction with the training site to which the student is assigned.	1-9	see instructor to register
AGRO 1100	Introduction to Agronomy	This course covers basic agronomy principles and environmental ethics. Students will learn seed quality, plant growth, anatomy of a plant, seed production, and plant response to environmental factors. Relevant agricultural patents and ethical issues will be discussed.	3	none
AMSL 1410	American Sign Language I	In this introductory course, you will engage in receptive and expressive language readiness activities as well as learn vocabulary, basic use of ASL grammatical structure and signing space, conversational regulators, fingerspelling and introductory aspects. Students will learn appropriate introductions, how to exchange personal information, sign about their surroundings, explain where they live, speak about their family and converse about activities. Basic aspects of Deaf Culture will also be integrated throughout the course. MnTC Goal 8	4	NG Accuplacer Reading Score 237+
AMSL 1412	American Sign Language II	In this level 2 introductory course, you will engage in receptive and expressive language readiness activities as well as continuing to learn vocabulary, basic use of ASL grammatical structure and signing space, conversational regulators, fingerspelling and introductory aspects. Students will learn to give directions, describe physical and personal characteristics of others, make requests and talk about family, routines and occupations. Basic aspects of Deaf Culture will also be integrated throughout the course. MnTC Goal 8	4	AMSL 1410

AMSL 1420	American Sign Language Cultural Immersion Travel	Students in this course will participate in an American Sign Language/Deaf Culture immersion travel-study trip. The entire duration of the trip will be conducted in American Sign Language. Topics of study will derive from art, culture, history and geography of the area being visited. Classroom time prior to the trip will involve basic culture lessons and preparation for travel. Post trip classroom meetings will emphasize reflection of travel experience and learning. MnTC Goals 1 and 8	2	NG Accuplacer Reading Score 237+
AMSL 2370	Topics in American Sign Language	This course will examine selected topics of interest in American Sign Language. Offered on demand.	1-4	none
AMSL 2410	American Sign Language III	In this level 3 course, you will engage in receptive and expressive language readiness activities as well as continuing to learn vocabulary, basic use of ASL grammatical structure and signing space, conversational regulators, fingerspelling and introductory aspects. Students will learn to describe placement and give directions, make requests, complaints and suggestions, ask for permission and clarification, tell about life events, nationalities and family history. In depth practice with multiple meaning words in ASL and basic aspects of Deaf Culture will also be integrated throughout the course. MnTC Goal 8	4	AMSL 1412
AMSL 2412	American Sign Language IV	In this level 4 course, you will engage in receptive and expressive language readiness activities as well as continuing to learn vocabulary, basic use of ASL grammatical structure and signing space, conversational regulators, fingerspelling and introductory aspects. Students will learn to exchange in-depth personal information, describe and identify shapes, patterns and textures, and sign about weekend activities. In-depth practice with multiple meaning words in ASL and basic aspects of Deaf Culture will also be integrated throughout the course. MnTC Goal 8	4	AMSL 2410
AMSL 2414	Conversational ASL	In this course, students will build receptive and expressive conversational skills through small group work. Vocabulary and classifier building through conversational settings. Continued practice with real world experiences and discussions. This course is repeatable. MnTC Goal 1	1	AMSL 1410
AMSL 2420	Deaf Culture	No sign language experience is necessary for this course! This class introduces students to the history and culture of Deaf people. Students will study the influences in Deaf culture, the implications of being pathologically deaf vs. culturally Deaf, and various aspects of Deaf community and culture. The course also examines the historical treatment of deaf people as well as educational influences, causes, and treatment of deafness. MnTC Goals 6 and 7	3	NG Accuplacer Reading Score 237+
ANSI 1100	Introduction to Animal Science	This course is a broad introduction to animal science, and the role of animals in society from biological, social, global and industry perspectives. Topics covered include the fundamental concepts of nutrition, anatomy/physiology, breeding, behavior, health care, animal welfare, marketing, economics and management principles as they apply to both traditional and non-traditional species of livestock and poultry.	4	none
ANSI 1110	Food Safety: From Farm to Fork	This course is a producer and consumer oriented introduction to food safety and food safety risks associated with the agrifood industry, specifically the food animal sector. Topics of study will include zoonotic and food borne pathogens, chemicals, toxins and drug residues, biosecurity, current technology, consumer perceptions and regulatory agencies responsible for overseeing food safety in the industry. Students will examine food safety risks associated with production, harvest, transporting, processing, distribution, retail sale, home and commercial kitchen use of animals and animal products and learn the control, prevention and intervention strategies available to help minimize the risk of food borne disease. Students completing this course have the opportunity to earn the National Restaurant Association ServSafe Certificate, which meets the State of Minnesota's requirements for Food Manager Certification.	3	none
ANTH 1457	Cultural Anthropology	Cultural Anthropology is the comparative study of contemporary human cultures, and includes analysis of various aspects of culture, such as language, food-getting, family and kinship, economics, politics, religion, and change. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 237+
ANTH 2411	Cultures of American Indians	This course is an examination of Native American Cultures that will include discussion of contemporary issues facing native communities. It will focus on the distinct worldviews that influence all aspects of culture within those communities as well as their relationships with other communities, both native and non-native. MnTC Goals 5 and 7	3	NG Accuplacer Reading Score 237+
ARTS 1401	Black and White Photography	This course is an introduction to photography as a discipline of visual art. Students will study basic camera operations, composition techniques, lighting effects, elements of design, historical perspectives, skills in image critique, traditional and current image processing, and basic storytelling. This course will require some in and out of class image capture with image conversion to monochrome. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1403	Color Photography	Students will be introduced to visual storytelling using color photography. The course will include basic techniques of composition, camera exposure adjustments, expression, critique, historical perspective, and solving visual problems. A majority of our population have color photography available through the use of a sophisticated camera phone. Color images are a powerful, artistic, communicative tool used in daily life. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1420	The Art of Digital Photography	This course is an introduction to visual art, stressing the basic skills involved in creating and understanding digital photography. The objective of this course is to encourage the students to open their mind to the cultural significance of visual arts as well as to develop the ability to use technical problem solving processes. A goal is for a student to be able to use digital media as a vehicle of artistic expression. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1422	Introduction to Cinematography	This course is an introduction to the aesthetic, conceptual practices, and art of movie photography and camera work. Photography may be considered a medium of single frame communicative art form, while cinematography is a medium of continuous frames, to become whatever frames are required to tell the story. This course will concentrate on conceptualization, interpretation, and evaluation of still and video-based art. Students will become familiar with framing, camera movements and angles, composition, perspective, lighting, narrative, lenses, storyboarding, and more. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1425	Introduction to Graphic Design	This introductory course explores the basic principles, aesthetic and conceptual practices of graphic design. This course is a studio art course as such it will concentrate on conceptualization, interpretation, and evaluation of communication art. Emphasis is placed on developing an awareness and effective use of type, image, symbols, and visual relationships. Students focus on the design process as a way to develop and refine design solutions. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1458	Introduction to Drawing	This course is an introduction to traditional drawing techniques and concepts. Emphasis is places on direct observation, developing pictorial space and drawing concepts, practiced with traditional materials. This is a basic course designed to provide a drawing foundation for all studio art courses, and is recommended as an introduction to the art field and creative process for all students. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+

ARTS 1459	2-D Design	This course is an introduction to photography as a discipline of visual art. Students will study basic camera operations, composition techniques, lighting effects, elements of design, historical perspectives, skills in image critique, traditional and current image processing, and basic storytelling. This course will require some in and out of class image capture with image conversion to monochrome. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1461	3-D Design	This course is an introduction to three-dimensional design and basic sculpture building techniques. Emphasis is placed on concepts and processes related to the visual and physical organization of three-dimensional form and space. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1468	Introduction to Painting	This course is an introduction to photography as a discipline of visual art. Students will study basic camera operations, composition techniques, lighting effects, elements of design, historical perspectives, skills in image critique, traditional and current image processing, and basic storytelling. This course will require some in and out of class image capture with image conversion to monochrome. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1470	Art Appreciation	This course is an introduction to the history and appreciation of art through a survey of aspirations and art forms as expressed in painting, sculpture, printmaking, photography, crafts and cinematography. It is a study of individual artists, techniques, and art movements in specific context relative to the historical, political and economic circumstances. Other class components include course projects, discussions, research, and some writing requirements. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1487	Ceramics: Beginning Hand Building	This course is an introduction to the physical characteristics of clay and basic sculptural hand building techniques. Emphasis is placed on creating original works of ceramics that explore a variety of formal and conceptual problems. Students develop a visual vocabulary and aesthetic of three dimensional form, using historic and contemporary ceramics materials, terminology, styles, and techniques. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1488	Ceramics: Beginning Throwing	This course is an introduction to the physical characteristics of clay and basic wheel throwing techniques. Emphasis is placed on creating original works of ceramics that explore a variety of formal and conceptual problems. Students develop a visual vocabulary and aesthetic of three dimensional form, using historic and contemporary ceramics materials, terminology, styles, and techniques. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 1489	Intermediate Ceramics	This course emphasizes expressive use of form and surface relating to hand building and/or the potter's wheel. Additional focus is on making and using glaze as well as firing and study of historical and contemporary artists. This is a studio art course. MnTC Goal 6	3	ARTS 1487 or ARTS 1488
ARTS 1596	Topics in Art	This course will examine selected topics of interest in Art. Offered on demand. This course may be repeated.	1-3	NG Accuplacer Reading Score 237+
ARTS 2411	Introduction to Digital Imaging	This course focuses on the foundations of digital imaging, integration of principles, and processes of contemporary image capture and output. A variety of studies in visual projects engage students in solving aesthetic and technical problems incorporating analysis, interpretation, expression, and presentation. Students will identify and demonstrate basic visual elements, principles of design, and technical aptitude common to all works of art. This is a studio art course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 2486	Art History/Ancient	This course is a survey of art from pre-history through the Middle Period. It includes human creativity presented through a variety of media and art forms. This course offers an excellent basis for cultural diversity, critical analysis, and aesthetic appreciation. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ARTS 2487	Art History/Modern	This course is a survey of art from the Middle Period through modern art. It continues from where the Art History/Ancient course stopped, but it is not necessary to take the two courses in sequence. It examines human creativity presented through a variety of media and art forms. This course offers an excellent basis for cultural diversity, critical analysis, and aesthetic appreciation. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
AUTM 1101	A1 Engine Repair	This course covers the fundamentals of internal combustion engine operation, repair and maintenance, the procedures for removal, replacement, diagnosing, rebuilding, and assembly. Proper tool and equipment application and failure diagnosis are emphasized in this course. This course provides a minimum of 125 clock hours of the 120 required NATEF clock hours.	4	none
AUTM 1102	A2 Automatic Transmission & Transaxle	This course teaches the theory of operation of automatic transmissions and transaxles and the related components. The fundamentals of service of the components of the transmissions will be introduced and practiced in this course. This course provides a minimum of 125 clock hours of the 120 required NATEF clock hours.	4	AUTM 1106, AUTM 1108, AUTM 1116
AUTM 1103	A3 Manual Drive Train & Axles	This course covers standard automotive and light truck clutches, drive line, differential/4x4 and manual transmissions/transaxles. The clutch section includes design, adjustment, overhaul, diagnosis and repair of mechanical and hydraulic systems. The drive line section includes phasing alignment and balance. The manual transmission/transaxle section teaches the operation theory and repair. This course provides a minimum of 100 clock hours of the 100 required NATEF clock hours.	4	none
AUTM 1104	A4 Steering & Suspension	This course teaches suspension systems using leaf springs, coil springs, MacPherson struts, torsion bars and wheel balance. It also covers the principles of operation, disassembly, checks and adjustments of power and manual steering gears, and manual and power rack and pinion systems. Also teaches the procedures required for checking and adjusting wheel alignment. This course provides a minimum of 100 clock hours of the 95 required NATEF clock hours.	4	AUTM 1106
AUTM 1105	A5 Brakes	This course teaches the principles of brakes, hydraulic system fundamentals, disc and drum brakes, parking brakes and power assist units. Also included is an introduction to ABS systems. Emphasis is placed on operation, diagnosis and repair of various types of brake systems. This course provides a minimum of 125 clock hours of the 105 required NATEF clock hours.	4	AUTM 1106
AUTM 1106	A6 Electrical/Electronic Systems I	This course covers the theory and operation of all electrical and electronic systems on the automobile. It will cover basic electronics, starting and charging, body electronics, and computer operation. This course provides a minimum of 125 clock hours of the 230 required NATEF clock hours.	4	none
AUTM 1107	A7 Heating & Air Conditioning	This course teaches the principles of air conditioning and its relationship to the heating system. The various types, diagnosis of malfunctions, testing and repair are studied in the classroom. Practical experience is performed on live systems: recovering, evacuating, component replacement, charging and performance testing on the systems. This course provides a minimum of 100 clock hours of the 90 required NATEF clock hours.	4	AUTM 1106
AUTM 1108	A8 Engine Performance I	This course teaches the theory and repair of automotive engine systems. It includes ignition systems, emission controls, electronic engine controls, and engine performance diagnosis. This course provides a minimum of 125 clock hours of the 220 required NATEF clock hours.	4	AUTM 1101, AUTM 1106
AUTM 1116	A6 Electrical/Electronic Systems II	This course covers the theory and operation of all electrical and electronic systems on the automobile. It will cover basic electronics, starting and charging, body electronics, and computer operation. This course provides a minimum of 125 clock hours of the 230 required NATEF clock hours.	4	AUTM 1106

AUTM 1118	A8 Engine Performance II	This course teaches the theory and repair of automotive engine systems. It includes ignition systems, emission controls, electronic engine controls, and engine performance diagnosis. This course provides a minimum of 125 clock hours of the 220 required NATEF clock hours.	4	AUTM 1108
AUTM 1120	Transportation Industry Skills I	This course is designed to give students an understanding of safety procedures used in a working automotive shop. Safety involving tools and equipment, as well as personal safety, will be discussed. Students will gain an understanding of the tools and equipment used in a working automotive production shop. Preparation of automotive repairs and delivery to the customer will be stressed.	1	none
AUTM 1121	Transportation Industry Skills II	This course is designed to give the students workplace employability skills needed for a successful career in the automotive field. It deals with people skills, problem solving skills, ethics, communications and teamwork.	1	none
AUTM 1122	Transportation Industry Skills III	This course is designed to teach math and common measurement tools used in an automotive shop environment. Fasteners and sealants will also be discussed and applied to proper usage. Safe handling and disposal of hazardous wastes will be emphasized.	1	none
AUTM 1123	Transportation Industry Skills IV	This course describes different job classifications available to the automotive industry. This course will also teach skills needed to conduct a job interview successfully, and to write and maintain a resume.	1	none
BIOL 1404	Human Biology	This course provides an introduction to the structure and function of the human body using an organ systems approach. The organ systems studied include the integumentary, skeletal, muscular, circulatory, respiratory, digestive, excretory, nervous, endocrine and reproductive systems. Human development and heredity will also be integrated. Two hours lecture and two-hour lab weekly. MnTC Goal 3	3	NG Accuplacer Reading Score 237+
BIOL 1411	Concepts of Biology	This course is a one-semester survey of the fundamental concepts of biology. Topics covered may include: cell structure and function, understanding how living things grow, reproduce, acquire, and use energy, and respond to their environments, plants, animals, behavior, evolution, ecology, or biotechnology. Two hours lecture and a two hour lab weekly. This course is intended for non-science majors. MnTC Goal 3	3	NG Accuplacer Reading Score 237+
BIOL 1415	Environmental Biology	This course takes a holistic approach to current status and future prospects of earth's life support systems emphasizing human impact on the environment. Topics include interrelationships of organisms and their environment, population dynamics, pollution, major ecosystems, examination of causes and possible solutions to major local, national and global environmental problems. This course is intended for non-science majors. MnTC Goals 3 and 10	4	NG Accuplacer Reading Score 237+
BIOL 1431	General Biology I	An introduction to the basic life process at the cellular level including the chemistry of life, organization of the cell, membranes, energy, enzymes, respiration, photosynthesis, cell division, Mendelian genetics, molecular genetics (DNA), and genetic engineering. There is a strong emphasis on problem solving and the scientific process. MnTC Goal 3	5	NG Accuplacer Reading Score 250+
BIOL 1432	General Biology II	A macroscopic approach to biology covering the topics of evolution, ecology and biodiversity of living organisms. Topics include taxonomy and classification of the major living groups including their structure and function, development, and behavior. Lecture and laboratory. For majors and non-majors. MnTC Goals 3 and 10	5	NG Accuplacer Reading Score 250+
BIOL 2411	Biology of Women	This biology course is designed to introduce basic biological concepts in the context of human reproduction. Relevant topics covered may include human reproductive anatomy and physiology, human genetics, menstrual cycles and disorders, pregnancy, labor and delivery, infertility and reproductive technology, fetal development, contraception, sexually transmitted diseases and reproductive organ cancers, menopause, and global women's health care issues. Lab included. This course is intended for non-science majors and is not for women only. MnTC Goals 3 and 7	3	NG Accuplacer Reading Score 237+
BIOL 2415	General Ecology	This course is structured so that students can see the variations and complexities of nature. Topics cover the physical environment, the organism and the environment, populations, species interactions, community, and ecosystem dynamics. Lecture is accompanied by laboratory and field exercises. MnTC Goals 3 and 10	4	NG Accuplacer Reading Score 237+
BIOL 2420	Genetics	This laboratory science course provides an introduction to the study of genetics. Topics covered include: classical genetics - Mendelian principles underlying inheritance; population genetics – natural and artificial (trait) selection; and modern molecular genetics – with applications to medical genetics, agriculture, and society. The laboratory component requires careful manipulation, observations, recording of data, and analyses of results. MnTC Goal 3	4	BIOL 1431 and CHEM 1424
BIOL 2457	Microbiology	Microbiology is the study of microbes such as bacteria, viruses, and fungi. Structure and function of microbes are examined, with an emphasis placed on the transmission, pathogenesis and control of microbial infections. In addition to medical aspects, the course covers environmental and industrial roles of microbes. Microbiological lab techniques include culturing, staining, and identification of microbes. This course meets for two hours of lecture and two 2-hour labs weekly. It is designed for liberal arts and sciences students, biology, nursing and other science related fields. MnTC Goal 3	4	BIOL 1404 and CHEM 1407, or BIOL 1404 and CHEM 1414, or BIOL 1404 and CHEM 1424, or BIOL 1431, or BIOL 2401, or BIOL 2467
BIOL 2467	Anatomy & Physiology I	The first of a two-course sequence in which the details of the human body are explored beginning with the organization of the human body that includes a comprehensive study of (bio)chemistry, cytology and histology. Then proceeds to investigate both the anatomy (structures) and physiology (functions) of the: integumentary, skeletal, muscular, nervous, (and an introduction to the) endocrine systems. For liberal arts and sciences students, biology, nursing and other science related fields. MnTC Goal 3	4	BIOL 1404 or BIOL 1411 or BIOL 1431 or CHEM 1405 or CHEM 1414 or CHEM 1424
BIOL 2468	Anatomy & Physiology II	The second of a two-course sequence designed to investigate the anatomy and physiology of the remaining organ systems including the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Three hours lecture and a three-hour lab weekly. For liberal arts and sciences students, biology, nursing and other science related fields. MnTC Goal 3	4	BIOL 2467 with grade of "C" or higher
BUSN 1102	Accounting for Non-Accountants	This course is a practical introduction to accounting, the language of business, for business owners and managers. Both the how and the why of accounting principles and practices are blended to provide a foundation for the financial management of service and merchandise businesses. The procedural based model of instruction provides a hands-on learning experience for students. The course is recommended for all business careers outside of the accounting field.	3	none
BUSN 1131	Business Math	This course is designed to provide calculator and mathematical knowledge and skills needed to make calculations necessary to solve business problems. Success is based on the touch method of operating calculators efficiently, and mathematical calculations relative to the fundamental mathematical processes used for basic math, solving for unknowns, percentages, discounts, markups and markdowns, checking accounts, interest, payroll, compound interest and present value, annuities and sinking funds, credit cards, home mortgages, stocks and bonds, and basic business statistics.	3	none

BUSN 1162	Customer Relations	This course will introduce the basics of customer service in the areas of service strategies, attitudes, retention, communication, and sales. The student will learn how to create positive memorable experiences for customers, provide consistent caring and professional service, and avoid becoming involved in unproductive customer interactions.	3	none
BUSN 1164	International Business	This course provides students with an understanding of the core concepts related to the international environment in which business is conducted today. Students are expected to be able to understand the global economy as well as the structural frameworks that influence an organization's global operations.	3	none
BUSN 1166	Business Communications	This course emphasizes the importance of individual and organizational image when communicating in any matter with customers, fellow employees and employers. A concept-and-practice approach focuses on purpose, content, and planning.	3	none
BUSN 1501	Introduction to Business	This course is a survey of the forces that shape business in American and overview of how American business responds. Topics include business economics, forms of business organizations, management functions, marketing procedures, business finance, and insurance considerations.	3	none
BUSN 2101	Entrepreneurship	This course examines the risks and rewards of entrepreneurship with a study of the challenges and opportunities of managing a small business for profit.	3	none
BUSN 2106	Marketing Principles	This course provides a foundation of marketing concepts for the student. The course material is designed to develop a knowledge of both general and specialized marketing terms. Topics include marketing function, consumer behavior, product strategies, marketing channels, pricing strategies, and promotion.	3	none
BUSN 2108	Quality and Performance Management	This course is a study of continuous improvement in the quality, productivity, and performance of products and services. A systems approach combining management philosophy, team-building, and statistical tools are used to control and improve business processes.	3	none
BUSN 2110	Frontline Leadership	This course is an examination of people as the most valuable asset in any business with an emphasis on understanding the leadership role of management and developing core interpersonal skills to deal effectively with employees on the job.	3	none
BUSN 2111	Management Principles	Management principals provides a practical look at the management environment, business organizational structure, and the manager's role as planner, organizer and leader. Topics include a review of the management environment, planning and problem-solving tools, staffing, and teamwork.	3	none
BUSN 2114	Human Resource Principles	Human Resource Principles studies the employee's role in working effectively with the human resources of the organization. Emphasis areas include personnel planning, job analysis and design, employee recruitment, selection, training, and employee/management relations.	3	none
BUSN 2126	Business Financial Management	This course is an entrepreneur’s real world, hands-on application of accounting fundamentals simulating the financial management of small service and merchandise businesses. Sage 50 and QuickBooks accounting software programs in addition to the Microsoft Excel program will be used for management and analysis.	3	none
BUSN 2130	Legal Environment of Business	This course is a study of the political and legal framework within which American businesses operate. Topics include the nature and formation of law and its application to business, constitutional, administrative, criminal, and international laws, contracts, torts, product liability, cyber law, bankruptcy, consumer protection, environment, real property, business organization, and employee relations.	3	none
BUSN 2150	Business Management Capstone	This Capstone course provides students the opportunity to create a final project or experience in the Business Management Program. Students will have the opportunity to conduct a research project, complete a volunteer or internship experience, or complete a Business Plan in consultation with the Small Business Development Center.	3	none
CMAE 1502	Technical Math	This is an introductory technical math course. The course is for students who have basic math skills and for those who need basic technical math concepts. The primary goals of this course are to help individuals acquire a solid foundation in algebra and geometry used in a technical setting. This course will show how these skills can model and solve authentic real-world problems.	3	Accuplacer Arithmetic score of 45, Accuplacer Reading score of 52
CMAE 1506	Introduction to Computers	This is an introductory course in Microsoft Office computer applications for technical fields. The primary goal of this course is to help individuals acquire a hands-on working knowledge of current personal computer applications including word-processing, spreadsheets, database, presentation, and internet browser software.	2	Accuplacer Reading score of 52
CMAE 1510	Print Reading	This course will give students an understanding of basic mechanical drawing principles. Topics include the alphabet of lines, arrangement of views, orthographic projections, scaling, dimensioning, tolerancing, and symbols. Students will read and interpret mechanical drawings.	2	Accuplacer Reading score of 52
CMAE 1514	MSSC Safety	This course aligns with the Manufacturing Skill Standards Council’s (MSSC) assessment and certification system for Safety. The curriculum is based upon federally endorsed national standards for production workers including Occupational Safety Health Administration (OSHA) standards relating to Personal Protective Equipment (PPE), Hazardous Material (HAZMAT), tool safety, and confined spaces.	2	Accuplacer Reading score of 52
CMAE 1518	Manufacturing Processes and Production	This course aligns with the Manufacturing Skill Standards Council’s (MSSC) assessment and certification system for Manufacturing Processes. The curriculum is based upon federally endorsed national standards for production workers emphasizing lean manufacturing principles, basic supply chain management, communication skills, and customer service.	2	Accuplacer Reading score of 52
CMAE 1522	Quality Processes	This course aligns with the Manufacturing Skill Standards Council’s (MSSC) assessment and certification system for Quality Practices. The curriculum is based upon federally endorsed national standards for production workers. Emphasis is placed on Continuous Improvement concepts and how they relate to a quality management system. Students will be introduced to a quality management system and its components. These include corrective actions, preventative actions, control of documents, control of quality records, internal auditing of processes, and control of non-conforming product.	2	Accuplacer Reading score of 52
CMAE 1526	Maintenance Awareness	This course aligns with the Manufacturing Skill Standards Council’s (MSSC) assessment and certification system for Maintenance Awareness. The curriculum is based upon federally endorsed national standards for production workers. The course introduces the concepts of Total Productive Maintenance (TPM) and preventative maintenance with the fundamental principles of lubrication, electricity, hydraulics, pneumatics, and power transmission systems.	2	Accuplacer Reading score of 52
CMAE 1528	Career Success Skills	This is an introductory career success skills course. The primary goal of this course is to help individuals acquire a solid foundation in the basic skills for a successful career. This course will identify the skills important to businesses and help the student assess his/her level of skill. The course will provide suggestions for how the student can improve his/her level of skill.	1	none
CMAE 1530	Machining Math	This math course is designed for students in a machine shop environment. The primary goal of this course is to help individuals acquire a solid foundation in the basic skills of math that relate to machine shop and industrial manufacturing. This course will show how these skills can model and solve authentic real world problems.	2	Accuplacer Arithmetic score of 62 or higher, CMAE 1502

CMAE 1532	Machine Tool Print Reading	This course will orient students in skills and abilities required for understanding prints used in a machining environment. Emphasis will be on use and interpretation of geometric dimensioning, tolerance, and symbols used in machining of a part or assembly of a group of machined parts. Students will be introduced to and use basic principles of math/geometry, surface symbols, geometric tolerances, welding symbols, material types, sections and sectional views.	2	Accuplacer Reading score of 52 or greater, CMAE 1510
CMAE 1534	Machine Tool Technology Theory	This course covers measurement tools and uses, cutting tools and types, machine shop tools such as band saws, lathes, vertical milling machines, basic machine tool set-up, operations of machine tools, terminology used within the scope of machining processes.	2	CMAE 1530 and CMAE 1532
CMAE 1536	Machine Tool Technology Lab I	This course will address the basic operations of drill presses, tool grinders, vertical milling machines, engine lathes and metal cutting saws. Machine safety, machine component identification, as well as turning, milling sawing, bench work project layout, single point tool grinding projects are also included in the course. Students will be introduced to the proper use and care of inspection measuring tools.	2	CMAE 1534
CMAE 1538	Machine Tool Technology Lab II	This course will address the advanced operations of a drill press, vertical milling machine, engine lathe, surface grinder and saws, machine safety, machine component identification, as well as turning, milling, sawing, surface grinding lab projects. Students will also learn the care of and use of high precision measuring equipment.	2	CMAE 1536
CMAE 1542	Geometric Dimensioning and Tolerancing	Students will learn how to read prints with geometric dimensioning and tolerance applications. Each of the geometric controls will be examined so that the student is able to determine the allowable variation in form and size between part features. The Y14.5 M standard will be part of the overall instruction. Using precision equipment, most of the geometric controls will be inspected to print specifications.	2	CMAE 1532
CMAE 1550	DC Power	This course covers the basic principals in DC electrical circuits including series, parallel and complex circuit analysis, OHM's law, electrical meters, conductor, insulators, resistors, batteries and magnetism. The course material covered will enable students to calculate circuit parameters, build electrical circuits, use testing equipment to measure and troubleshoot circuit and electrical components.	3	CMAE 1502
CMAE 1554	Digital Electronics	In this course learners will acquire a fundamental knowledge of digital electronics. Boolean algebra, numbering systems covered include hexadecimal, binary, BCD, and octal. Digital devices and circuits, analog to digital conversion along with digital to analog conversion will be covered. Learners will build and test basic digital circuits, test circuits to digital truth tables, troubleshoot circuits as required.	3	CMAE 1502
CMAE 1560	Interpreting Welding Symbols	Welding symbols are used to facilitate communication among the designer, fabricator, and inspection personnel. To accurately layout and fabricate parts, the welder will need basic knowledge of working drawings and their significance to the welding industry. Students will break down welding prints to develop skills necessary to fabricate individual component parts of welded structures. Written and fundamental tests will be administered in accordance with American Welding Society (AWS) standards and the appropriate correlating code books (AWS A2.4).	2	Next Gen Reading 234
CMAE 1562	Oxyfuel Welding and Cutting Processes	This course covers the use of oxyfuel equipment while welding, cutting, brazing, and using the Plasma Arc Cutting (PAC) and Air Carbon Arc Cutting (CAC-A) processes. There will also be an introduction to laser cutting equipment. Time will be spent discussing safety while developing skills using thermal welding and cutting processes. Welding and brazing will be performed in the flat and horizontal positions. All cutting will be performed in the flat position. Written and fundamental tests will be completed in accordance with American Welding Society (AWS) codes and standards.	3	Next Gen Reading 234
CMAE 1564	Shielded Metal Arc Welding (SMAW)	Students will study and demonstrate safety practices with Shielded Metal Arc Welding (SMAW). Students will also be introduced to the types of power sources used for arc welding, process applications, electrode selections, overview of weld types, and other work-related safety conditions in the welding field. Time will be spent in the lab developing skills utilizing SMAW processes. Welds will be made in the flat, horizontal, vertical, and overhead positions. Written and fundamental tests will be completed in accordance with American Welding Society (AWS) codes and standards.	3	Next Gen Reading 234
CMAE 1566	Gas Metal Arc Welding (GMAW)/Flux Cored Arc Welding (FCAW)	Students will study and demonstrate safety practices with Gas Metal Arc Welding (GMAW) and Flux Cored Arc Welding (FCAW). The GMAW and FCAW processes will be discussed in depth including the different type of modes of transfer available, shielding gases, and the different types of materials that can be welded. The differences in the electrode types of gas-shielded wires and self-shielded wires will be discussed, along with the types of shielding gases that are used. There will be discussions on the importance of how the welding process intersects with arc welding symbols and codes. There will also be a review of procedures used in visual inspections of welds. Time will be spent in the lab developing skills using GMAW and FCAW processes. Welds will be made in the flat, horizontal, vertical, and overhead positions. Written and fundamental tests will be completed in accordance with American Welding Society (AWS) codes and standards.	3	Next Gen Reading 234
CMAE 1568	Gas Tungsten Arc Welding (GTAW)	This course covers the safety hazards and applications for Gas Tungsten Arc Welding (GTAW) in the welding industry. Material covered will be power sources, setup, types of current, current selection, shielding gases, and torch types. Procedures and potential problems welding various metals (Aluminum, Stainless Steel, and Mild Steel) will be addressed in this course. Applications for the process in different industries, as well as the use of back purging will be discussed. Welds will be made in the flat, horizontal, vertical and overhead positions. Written and fundamental tests will be completed in accordance with the American Welding Society (AWS) codes and standards.	3	Next Gen Reading 234
CMAE 1570	Metallurgy	This course covers the study of metals and the effects of welding and heat treatments on them. Metallurgical terminology will be an important part of the course. Physical and mechanical properties of ferrous and nonferrous metals will be covered along with the classifications of different types of metals. The range of materials and their usefulness in particular applications will be discussed. Written tests will be completed in accordance with the American Welding Society (AWS) codes and standards.	1	Next Gen Reading 234
CHEM 1407	Life Science Chemistry	This course will provide the student with an introduction to general, organic and biological chemistry. Topics include: scientific measurement, atomic and molecular structure, periodicity, chemical bonding, nomenclature, chemical reactions, nuclear chemistry, solutions, acids, bases, organic functional groups, carbohydrates, lipids, amino acids, proteins and enzymes. The laboratory will reinforce lecture concepts. MnTC Goal 3	4	NG Accuplacer Math Score 235+ or NG Accuplacer Quan Score 265+
CHEM 1410	Environmental Chemistry	This course includes simplified topics in scientific measurement, atomic theory, bonding theory, states of matter, chemical reactions, hydrocarbons and fossil fuels, batteries, fuel cells, electrolysis, water sources, water pollution and purification. MnTC Goals 3 and 10	3	NG Accuplacer Reading Score 237+

CHEM 1414	Fundamentals of Chemistry	This course involves the study of general laws of chemistry, periodicity, atomic and molecular structure, physical and chemical changes. MnTC Goal 3	4	NG Accuplacer QAS score of 240, and Next Gen Reading score of 236
CHEM 1424	Chemical Principles I	This course includes a more rigorous collegiate treatment of topics in physical measurement, dimensional analysis, state of matter, nomenclature, chemical reactions, stoichiometry, gas laws, thermochemistry, atomic structure, and molecular bonding theory. MnTC Goal 3	5	NG Accuplacer Math Score 250+
CHEM 1425	Chemical Principles II	This course is a continuation of CHEM 1424 and includes topics in gas chemistry, solution chemistry, reaction rate, equilibrium, acid-base theories, solubility and complex in equilibrium, thermodynamics and equilibrium, electrochemistry and nuclear chemistry. MnTC Goal 3	5	CHEM 1424
CHEM 2472	Organic Chemistry I	This course involves a thorough coverage of the aliphatic and aromatic classes of compounds involving the study of structure, nomenclature, physical properties, preparation, reactions and analysis of these compounds. Also included is the study of reaction mechanisms. MnTC Goal 3	5	CHEM 1425
CHEM 2473	Organic Chemistry II	This course is a continuation of CHEM 2472 and involves a thorough coverage of the aliphatic and aromatic classes of compounds involving the study of structure, nomenclature, physical properties, preparation, reactions and analysis of these compounds. Also included is the study of reaction mechanisms. MnTC Goal 3	5	CHEM 2472
CDEV 1100	Foundations of Child Development	This course provides an overview of typical and atypical child development across cultures, from prenatal through school age including physical, social-emotional, language, cognitive, aesthetic, and identity/individual development. It integrates developmental theory with appropriate practices in variety of early childhood care education settings.	3	none
CDEV 1102	Introduction to Early Childhood Education	This course provides an overview of the Early Childhood profession through exploring and examining aspects such as: historical roots of the profession, theory, program types for children birth through age eight, career opportunities, personal characteristics of professionals, developmentally appropriate practice, and ethics.	3	none
CDEV 1104	Child Growth and Development	This course provides an overview of the developmental stages of children, prenatal through age eight including physical, social, emotional, language, cognitive, and creative development. While studying the integration of theory and developmentally appropriate, best practice students will observe children and analyze characteristics of development at various stages. Attention will be focused on theory, developmentally appropriate, best practice, and environmental factors that may affect development. In addition, this course contains an off-site lab experience that will assist in guiding students to obtain the skills necessary to become a successful professional within early childhood settings. All students will be required to obtain and pass a Minnesota background check prior to completing 30 hours at an approved lab site.	3	none
CDEV 1105	Child Safety, Health & Nutrition	This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety and nutrition education experiences, meeting children's basic nutritional needs, child abuse and current health related issues.	4	none
CDEV 1106	Child Health, Wellness, Safety, and Nutrition	This course will guide students in understanding teacher strategies and skills needed to establish and maintain a physically and psychologically safe, healthy learning environment for young children birth through age eight. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences within the daily routine, meeting children's basic nutritional needs, child abuse and neglect, childhood stress, trauma and current health, safety, and nutrition related issues.	3	none
CDEV 1110	Guidance: Managing the Physical/Social Environment	This course provides an exploration of the physical and social environments that promote learning and development for young children. It includes an introduction to basic child guidance techniques for individual and group situations. Emphasis is on problem-prevention and positive guidance strategies, including: communication, limit-setting, problem-solving, encouragement, and behavior modification. Students will apply their knowledge of the environment's role to an actual work setting.	4	none
CDEV 1112	Child Behavior and Guidance	This course provides an examination of the physical and social environments that promote learning and development for young children. It includes an introduction to basic child guidance techniques for individual and group situations. Emphasis is on exploring, observing, and practicing problem prevention and positive child guidance strategies through coursework and a lab experience. This course contains an off-site lab experience that will assist in guiding students to obtain the skills necessary to become a successful professional within early childhood settings. All students will be required to obtain and pass a Minnesota background check prior to completing 30 hours at an approved lab site.	3	CDEV 1102, CDEV 1104
CDEV 1114	Diverse Children and Family Relations	This course covers the relationship between the caregiver/teacher, child, family, and community. Students will explore teaching and environmental strategies that promote understanding and supporting diverse cultural and family structures. Students will examine cultural diversity/dynamics, bias, sensitivity, theory, and the importance of the context of family, culture and society as it relates to learning and child development.	3	CDEV 1102, CDEV 1104
CDEV 1115	Planning & Implementing Curriculum	This course examines the role of the teacher in early childhood settings. It applies the knowledge of child development as it relates to individual children, communities, curriculum and communication activities.	3	none
CDEV 1116	Integration of Play	This course examines play during infant, toddler, preschool, and school aged years of development. Course will examine the physical environment in relation to play, construct meaning of play materials appropriate to the play of children, theories of play, how play promotes all areas of development and learning.	3	CDEV 1102, CDEV 1104
CDEV 1120	Professional Relations in Early Childhood Careers	This course will guide the student in obtaining skills needed to establish and maintain a psychologically, safe learning environment for young children. Topics include child abuse, child neglect, reporting and educational experiences.	3	none
CDEV 1130	Infant/Toddler Development and Learning	This course provides an overview of infant/toddler theory and development in home or center-based settings. Students will integrate knowledge of developmental needs, developmentally appropriate environments, effective care giving, teaching strategies, and observations methods.	4	none
CDEV 1133	Creative Developmental Experiences	This course examines the development of children with special needs and prepares caregiver/teachers to integrate children with special needs into child development settings. The course includes review of legislation affecting children with disabilities, classroom strategies to meet the needs of a child with disabilities, the child within the family and community and overview of a variety of disabling conditions which might affect a young child.	3	none
CDEV 1135	Profiles of Exceptional Child	This course is an exploration of individual difference in the areas of mental retardation, orthopedic handicaps, visual and hearing impairments, speech and language disorders, learning disabilities, emotional and behavioral disorders, and the gifted. It is an introduction to the field of special needs. Although it is designed for students in the CDEV program, it is appropriate for persons who are interested in Special Education, either teachers, teacher's aides, childcare providers, or parents.	3	none

CDEV 1150	Childcare Business Strategies	This course provides students with an introduction to budgeting, financial management, and financial record keeping in child development programs. Specific topics include: start-up costs, determining utilization rates, setting/collecting parent fees, identifying break-even points, preparing financial statements, and fundraising.	3	none
CDEV 1160	Internship	This course provides the student an opportunity to integrate theory and practice, applying knowledge and skills in an instructor approved, licensed pre-school development setting. Students participate in the setting as members of the teaching team. Students implement a variety of learning experiences that are developmentally appropriate and culturally sensitive for a specific group of children. Students complete a portfolio documenting learning experiences based on selected BOT standards.	1-4	instructor's consent
CDEV 1162	Internship in Specialized Setting	This course provides on the job training for students interested in working with children with special needs. This course will create connections with future employers and provide students with an opportunity to reinforce previously introduced content regarding instructional planning, working with families, collaboration, and theories of disabilities.	2	none
CDEV 1305	Child Abuse and Neglect	This course will guide the student in obtaining skills needed to establish and maintain a psychologically, safe learning environment for young children. Topics include child abuse, child neglect, reporting and educational experiences.	1	none
CDEV 1306	Child Safety	This course offers an opportunity to learn and practice accident prevention procedures, emergency, and safety education learning experiences.	1	none
CDEV 1307	Child Health	This course will guide the student in obtaining skills needed to establish a healthy learning environment for young children. Topics include preventing illness and providing healthy educational experiences.	1	none
CDEV 1308	Nutrition	This course will guide the student in obtaining skills needed to establish policies and practices that meet basic nutritional needs of young children. Topics include policies and procedures of a developmentally appropriate nutrition program, appropriate nutritional education activities for infants through school age children.	1	none
CDEV 1323	Guidance: Developmentally Appropriate Practice	Emphasis will be placed on applying and practicing strategies and techniques to sensory, cognitive, social-emotional, language and creative learning environments. Designed for anyone working in the child care and development industry.	1	none
CDEV 1394	Topics in Child Development	Trends, issues, conference tracks may be chosen as a topic of study. Students apply knowledge of the chosen topic to actual programs for children ages 0-8 years.	1	none
CDEV 1395	Topics in Child Development	Trends, issues, conference tracks may be chosen as a topic of study. Students apply knowledge of the chosen topic to actual programs for children ages 0-8 years.	1	none
CDEV 1396	Topics in Child Development	Trends, issues, conference tracks may be chosen as a topic of study. Students apply knowledge of the chosen topic to actual programs for children ages 0-8 years.	1	none
CDEV 1397	Topics in Child Development	Trends, issues, conference tracks may be chosen as a topic of study. Students apply knowledge of the chosen topic to actual programs for children ages 0-8 years.	1	none
CDEV 1398	Topics in Child Development	Trends, issues, conference tracks may be chosen as a topic of study. Students apply knowledge of the chosen topic to actual programs for children ages 0-8 years.	1-3	none
CDEV 2100	Introduction to Foundations of Public School Education	Introduction to the Foundations of Public Education addresses the historical, social, and political foundations of education in the United States. Students will examine the roles, functions, and responsibilities of preschool, elementary, and secondary classroom teachers.	3	none
CDEV 2104	Observation and Assessment	This course provides the student with an opportunity to observe, assess, record, interpret, and develop plans to strengthen the development of children. Students will study then carry out numerous informal and formal methods of observing and assessing children and will construct a child study based on assessments gathered throughout the course of the semester.	3	CDEV 1102, CDEV 1104, CDEV 1112, CDEV 1114
CDEV 2106	Creative Activities and the Learning Environment	This course provides an overview of developmentally appropriate learning experiences in home, center-based, and school settings. Students integrate knowledge of developmental needs, environments, and teaching strategies to enhance all areas of a child's emerging development throughout the curriculum.	3	CDEV 1102, CDEV 1104, CDEV 1112, CDEV 1114
CDEV 2108	Introduction to Language and Literacy	This course provides an overview of language and literacy development for children birth to age eight. Students will research, evaluate, plan, and design developmentally appropriate language and literacy-rich experiences for children. Students will also learn teaching strategies utilized to promote literacy development within the program/school setting and home.	3	CDEV 1102, CDEV 1104, CDEV 1112, CDEV 1114
CDEV 2110	Characteristics of Students w/Learning and Behavior Disorders	This course focus is on characteristics and issues related to students with learning disabilities and emotional behavioral disorders. The student will strengthen effective educational practice, promote inquiry, and build leadership skills for regular and special educations and professionals in related fields.	3	none
CDEV 2112	Collaboration Skills & Transition Training	To best create a seamless system of transition for students with disabilities from secondary to post secondary environments, students will analyze and apply various collaboration methods with agencies, educational staff and multicultural populations. Emphasis will be given to the process of coordination of multiple service agencies in those transitions.	3	none
CDEV 2114	Introduction to Autism Spectrum Disorder	This course is an overview of autism spectrum disorders. Focus will be given to characteristics of individuals who have been identified as having autism, Asperger's syndrome and childhood disintegrative disorders.	2	none
CDEV 2116	Infant and Toddler Development, Learning, and Responsive Relationships	This course provides an overview of infant/toddler theory, development, and responsive practice in home or center-based settings. Students will integrate knowledge of developmental needs, developmentally appropriate environments, effective care giving, teaching strategies and observation methods.	3	CDEV 1102, CDEV 1104, CDEV 1112, CDEV 1114
CDEV 2202	Introduction to Special Education	Students will examine strategies that support inclusive programs for children and families along with legal and ethical requirements, eligibility and qualification for services, including but not limited to American Disabilities Act and Individuals with Disabilities Education Act, typical and atypical development. Strategies to adapt curriculum to meet the needs of children with developmental differences and cultivate partnerships with families will also be explored.	3	CDEV 1102, CDEV 1104
CDEV 2204	Characteristics of Children with Autism, Learning Disabilities, Emotional Behavioral Disorders	This course provides an overview of characteristics and early interventions to support children with autism, learning disabilities, and emotional behavioral disorders and create an inclusive learning environment. The student will strengthen effective educational practice, promote inquiry, and build leadership skills for regular and special education.	2	CDEV 1102, CDEV 1104, CDEV 1112, CDEV 1114, CDEV 2104, CDEV 2106
CDEV 2206	Careers and Business Strategies in Early Childhood	This course provides students with information regarding possible careers/roles within early childhood professions such as paraprofessional's role in a school setting, center director/teacher and home-based child care providers. Business strategies to support a successful and professional business will also be covered.	3	CDEV 1102, CDEV 1104, CDEV 2106
CDEV 2208	Undertanding and Planning Curriculum	This course exposes students to what developmentally appropriate curriculum is for infants, toddlers, preschool and young school age children. Students will examine curriculum components along with how curricula differs and effects teaching and learning for specific and multi-age groups. Curriculum theory, models, research, evaluation, assessment, implementation, and evaluation will be explored.	3	CDEV 1102, CDEV 1104, CDEV 1112, CDEV 1114, CDEV 2104, CDEV 2106

CDEV 2210	Child Development Internship	This course provides an opportunity to apply knowledge and skill in an actual child development setting. Students will observe and assess children's behavior, facilitate free choice play, implement adult-directed learning experiences, and maintain professional relationships.	1-6	CDEV 1102, CDEV 1104, CDEV 1106, CDEV 1112, CDEV 1114, CDEV 1116, CDEV 2104, CDEV 2106
CDEV 2340	Professional Leadership	This course prepares students to take an active/advocate role in the child development profession by examining the history, current trends, and future of child care and early childhood education.	3	none
CDEV 2343	School Age Development and Learning	This course provides students with an overview of school age development: physical, cognitive, creative, and social/emotional. It integrates theory with developmentally appropriate practice in home and center based settings. Several guidance strategies will be addressed including problem-solving, group meetings and team building.	4	none
CDEV 2350	Practicum I	This course provides an opportunity to apply knowledge and skill in an early childhood setting. Students implement a variety of learning experiences that are developmentally appropriate for and culturally sensitive to a specific age and group of children.	3	instructor's consent
CCST 1510	College Success Skills	This course is designed to promote student and lifelong success. Course content generally includes academic skills, life management skills, and information about school & community. Specific topics include: goal setting, learning styles, college reading strategies, study techniques, time management, test-taking skills, memory techniques, stress reduction, critical thinking applications, communication tips, assertiveness, relationship building, cultural diversity awareness, health and wellness issues, college and community resources, financial planning and the many personal issues that may affect college students.	3	NG Accuplacer Reading Score 237+
CCST 1512	Combat to Classroom	This course will assist students to understand the unique needs of Veteran, military members and their families as they transition from their military related experiences to the college environment and the community. Particular focus will be on, but not be limited to :The development process for the service member and their family related to separation and reconnecting from deployments, the emotional issues related to military service and combat experiences, the physical/disability issues related to military service and combat experiences, the issues of stress and anxiety including Post TraumaticStress Disorder (PTSD), the issue of racism as it relates to military and combat experiences, the physical and emotional health, financial, and other services available, the campus and community based support services and activities for veterans, military members and their families, and the role of civic engagement in the transition process for veterans and military members.	2	none
CCST 1520	Career Planning	his course provides a comprehensive approach to career planning, educational planning, and decision making. The course begins with a self-exploration process in which students examine their values, personality characteristics, interests, strengths, skills, and goal setting. Current trends, occupational information, job seeking skills, and other resources will be explored to evaluate career options and educational goals.	2	NG Accuplacer Reading Score 237+
CCST 1530	Employment Strategies	This course is designed to provide the student an opportunity to research and explore all aspects of employment seeking strategies. Students will develop job-search strategies that will lead to more effective marketing of their skills. Critical components of the course include: planning your job search, gathering the tools (resumes, cover letters), beginning the search, interviewing and evaluating job offers.	3	none
CCST 1535	Honors Leadership Development	This course is designed to provide students the opportunity to explore the concept of leadership, to develop and improve their leadership skills, and gain personal insight that will help them reach their educational and personal goals. The course integrates readings from the humanities, experiential exercises, films, and contemporary readings on leadership. In addition the course provides opportunities for students to become "service leaders" through service learning. Courses in the Honors program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with the instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways.	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
CCST 1541	Student Senate	This is a first year course that provides a practical introduction to leadership. Students will study and apply the theories of leadership through the weekly Student Senate meetings, student activities, and service learning projects. This course is designed to prepare students for a lifetime of engaged, responsible, and active community involvement.	1	none
CCST 1542	Student Senate II	This second year course provides a practical introduction to leadership. Students will study and apply the theories of leadership through the weekly Student Senate meetings, student activities, and service learning projects. This course is designed to prepare students for a lifetime of engaged, responsible, and active community involvement.	1	none
CCST 1550	Introduction to College	This course will provide college students with the skills necessary to make a successful transition to college. In this course, students will gain personal insight and identify strategies that will help them reach their educational and personal goals. Course activities will focus on introducing students to the skills that are needed for academic success, such as time management, educational planning, strategies for learning, and use of college resources.	1	none
CCST 1552	Success Strategies for Athletes	This is a course designed for student athletes, which addresses both the study skills necessary to succeed academically and the complex athletic eligibility requirements (NCAA/NJCAA/NAIA) that govern present and future athletic competition.	1	none
CCST 1559	Money Management Skills	This course introduces students to basic money management skills so they will make informed decisions in managing their personal finances. Topics include understanding the student loan process and obligations, creating a budget, debt management, use of credit and credit cards, credit reports, checking and savings accounts, banking basics, insurance issues, developing a personal financial plan and setting financial goals.	1	none
CCST 1560	Math Success Strategies	This course helps students be successful in math through questioning strategies, modeling and visual representations, number flexibility, making connections among ideas, and identifying math in your life and future career. Students will explore a variety of math concepts with hands-on activities and cooperative learning to build confidence in math, develop math skills and conceptual understanding, and apply effective learning strategies for mathematics. Throughout the course, students will apply the concepts of effective learning while participating in math activities, games, cooperative learning. Math topics may vary depending on interests and needs of the group.	2	none
CCST 1570	On Course	The goal of this course is to help you grow academically and personally. This course is ideal for you if your career goals are unclear or if you've reached a point in your life where you feel "stuck". Topics include personal responsibility, self-motivation, self-management, and interdependence. You will have opportunities to grow in the ways you think, learn, and communicate.	3	NG Accuplacer Reading Score 227+

CCST 1590	Service Learning and Civic Engagement	Students in this course develop and/or implement service learning project to help the college's community including the surrounding local community under the supervision of college faculty and in cooperation with the staff of community organizations and agencies. Projects may include collaboration with college classes, various community agencies and organizations, education projects for college students, mentoring and shadowing. Students gain hands-on experience in project planning, development, implementation and evaluation.	1	none
CCST 1598	Topics in CCST	This course will examine selected topics of interest in College & Career Studies. On demand.	1-3	none
CCST 2520	Career Internship Experience	This internship course explores careers and training in a supervised work setting. You will examine and reflect on your internship experience by using feedback from others as well as your own self-analysis. Learn what skills employers are looking for to develop your resume while exploring your career options.	1	Instructor's Permission
COMM 1410	Introduction to Communication	This beginning-level course is designed to introduce students to four key areas of the communication discipline: interpersonal communication, intercultural communication, small group communication and public speaking. Through this course, students will explore the fundamental theories of communication as well as identify and apply the basic skills from each of those core areas so they can become more effective communicators in a variety of contexts. MnTC Goal 1	3	NG Accuplacer Reading Score 237+
COMM 1422	Honors Interpersonal Communication	Honors Interpersonal Communication is an enriched study of communication behaviors in dyads (pairs) and their impact on personal relationships. Learners analyze the common variables of interpersonal communication and learn techniques to overcome barriers to effective communication. Students will learn techniques of interpersonal competency improving one-on-one skills for verbal and non-verbal communication, perception, self-disclosure, listening and feedback, sharing emotions, assertiveness, coping with conflict, appropriate mediated interpersonal communication and communicating with family, friends and in the workplace. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. This course will feature an expanded reading load, as well as more in-depth assignments and discussions. MnTC Goal 1	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
COMM 1430	Public Speaking	This course is designed to introduce students to the basic principles of effective public speaking, focusing on informative and persuasive techniques. Topics included are topic selection and research/development; message and argument construction; audience and occasion analysis, critical thinking and evaluation; outlining and structure; and delivery and presentation skills. Students will also compare and contrast mediated communication performance skills and theory with traditional delivery mediums of public address. MnTC Goals 1 and 2	3	NG Accuplacer Reading Score 237+
COMM 1450	Introduction to Mass Communication	This course will study how mass forms of communication disseminate information and influence situations. Included will be an introduction to the history and development of mass communication systems: newspapers, magazines, books, recorded music, radio, television, movies and social networking. Units in advertising and public relations will also be included. Students will study and critically assess the technical, historical, social, economic, global and ethical aspects of mass communication including legal issues, global citizenship, and rights and responsibilities as media consumers and producers. MnTC Goals 2 and 9	3	NG Accuplacer Reading Score 237+
COMM 2420	Intercultural Communication	This course is designed to study communication among individuals of different cultural backgrounds, including the study of similarities and differences across cultures. Intercultural Communication is designed to help students learn about their own cultural identities, recognize cultural differences, identify barriers, adjust their communication, and build successful relationships to help them better succeed in their professional and personal lives. We'll look inclusively at culture, exploring both international and domestic variables. Topics will include communication and intercultural communication theory, barriers to communication such as ethnocentrism, stereotyping, prejudice and discrimination, cultural variables affecting communication such as language, nonverbal behaviors, perception, rules, values and worldview. MnTC Goals 1 and 7	3	NG Accuplacer Reading Score 237+
COMM 2422	Honors Intercultural Communication	Honors Intercultural Communication is an enriched study of communication among individuals of different cultural backgrounds, including similarities and differences across cultures. Intercultural Communication is designed to help students learn about their own cultural identities, recognize cultural differences, identify barriers, adjust their communication, and build successful relationships to help them better succeed in their professional and personal lives. We'll look inclusively at culture, exploring both international and domestic (sub-culture) variables. Topics will include intercultural communication theory, identity, history and historical trauma, linguistics and verbal behaviors, nonverbal behaviors, perception, rules, values, ethics and worldview, as well as barriers to communication such as ethnocentrism, stereotyping, prejudice and discrimination. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. This course will feature an expanded reading load, as well as more in-depth assignments and discussions. MnTC Goals 1 and 7	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
COMM 2510	Applied Communication	This course allows students to earn credit while participating in a supervised applied learning experience in a career communication, service learning communication, or leadership communication context. A minimum of 54 service hours per credit per semester or summer session will be required for completion of the course. In addition, all proposed projects (with required project outlines created by the student) must be pre-approved by the supervising Communication instructor and all arrangements made prior to registration for the semester in which the project is proposed to be scheduled.	1-3	None
COMP 1101	Computer Fundamentals	This is a beginning course for students who want to understand the basics of computer hardware, the operating system, office applications and the internet, and how they integrate together in the computer world. Topics and skills will include using and changing the Windows desktop, downloading software from the internet, the file hierarchy and saving files, using the basic functions of word processing, spreadsheet, database and presentation software to create and format documents, understanding the basics of a network for the office and across the internet, the use of email clients to send messages, how to attach documents and organize tasks, connecting to and using the internet, searching the web effectively, working with sounds and picture files, and understanding privacy issues and how to prevent identity theft when using computers and the internet.	3	none

COMP 1103	Computer Basics-Operating Systems	This course is a slow moving and a step by step procedure in delivery of the material. Course will provide basic skills including functions of the following: how a computer works, internet security, password security, applications, functions of the toolbar, windows desktop, file structure, and saving documents. The proper use of email and its functions will be explored along with the features of a particular email system. Utilization of the help and support feature and its functions within the operating system and email system will be addressed.	1	none
COMP 1104	Computer Basics-Applications	This course is a slow moving and a step by step procedure in delivery of the material. Course will provide basic skills including functions of the following: how a computer works, internet security, password security, applications, functions of the toolbar, windows desktop, file structure, saving, formatting and managing word documents, resume writing, editing text documents and font attributes. Organizational skills and managing a file system will be explored and implemented. Utilization of help and support feature within the applications used will be explored.	1	none
COMP 1109	Introduction to Operating Systems	This course covers the basics of how to get the most out of using the Microsoft Windows operating system. Topics include identifying minimal hardware requirements needed to run Windows; customizing the desktop environment; file management; maintaining hard drives and other removable storage media; multitasking; the Windows applications of WordPad, Paint, Notepad and Windows Live; and sharing hard drives and printers in a small network environment. Career Preparation: The studies in this course will help students begin preparation for careers in information technology such as Computer Support Specialist and Network Administrator, Network Engineer, Systems Analyst, Systems Engineer, and Business Analyst. Certification Preparation: Optional. Certiport: IC3 - Computing Fundamentals.	3	none
COMP 1120	Introduction to Computer Applications	This course covers the current computer application software most used in the business and education worlds, the Microsoft Office suite of Word, Excel, Access, PowerPoint and Outlook. Some of the topics to be covered include: formatting Word documents; creating research papers and resumes using wizards and templates; creating Web pages with Word; using Excel to create worksheets and embedded charts; using Excel formulas and functions; creating what-if analysis; creating static and dynamic web pages using Excel; creating and querying an Access database; creating a PowerPoint presentation with a unified design; pictures and sound elements; and using Outlook to send and view mail, manage appointments and contacts. Career Preparation: Any business career that uses the Microsoft Office suite applications, including, but not limited to: Computer Support Specialist, Network Administrator, Network Engineer, Systems Analyst, Systems Engineer, and Business Analyst. Certification Preparation: Optional. Certiport: IC3 - Key Applications.	3	none
COMP 1121	Advanced Computer Applications	This course covers some of the advanced features and formatting options available in the Microsoft Office suite applications of Word, Excel, Access, and PowerPoint. Topics include: creating tables, charts and watermarks in Word documents, generating form letters, mailing labels and envelopes, creating newsletters, using the financial functions available in Excel to create data tables and amortization schedules, creating templates, creating reports from an Access database, creating Access forms and subforms, creating macros and using wizards, creating a switchboard manager in Access, using and modifying visual and sound elements in PowerPoint presentations, delivering PowerPoint presentations and collaborating in workgroups. Integration between the Office suite applications will be emphasized. Career Preparation: Any business career that uses the Microsoft Office suite applications, including, but not limited to: Computer Support Specialist, Network Administrator, Network Engineer, Systems Analyst, Systems Engineer, and Business Analyst. Certification Preparation: Optional. Microsoft Office Specialist, Word Core and Excel Core.	3	COMP 1120
COMP 1122	IT Essentials	IT Essentials curriculum provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level Information and Communication Technology (ICT) professionals. The curriculum covers the fundamentals of computer hardware and software as well as advanced concepts such as security, networking, and the responsibilities of an ICT professional. Students develop working knowledge of how computers operate, how to assemble computers, and how to troubleshoot hardware and software issues. Hands-on labs and virtual learning tools help students develop critical thinking and complex problem-solving skills. The course emphasizes the practical application of skills and procedures needed to install and upgrade hardware and software and troubleshoot systems. The IT Essentials (ITE) curriculum emphasizes practical experience to help students develop fundamental computer and career skills. ITE helps students prepare for entry-level career opportunities in ICT and the CompTIA A+ certification. The course also provides a learning pathway to the Cisco CCNA. Career Preparation: The studies in this course will help students prepare for careers such as Computer Support Specialist, PC Repair Technician, Network Administrator, Network Engineer, Systems Analyst, and Systems Engineer. Certification Preparation: Optional. CompTIA A+ Hardware (220-801) and A+ Operating Systems (220-802). Students are expected to know how to use a current Windows operating system including navigation, saving files, file management/hierarchy structure, compression, extraction, installation of programs, setting up user accounts and administrative operating system tasks. Students without this experience should take COMP 1109 Introduction to Operating Systems either before they take this course or concurrently.	3	none
COMP 1123	Introduction to Networks (CCNA-I)	This course is the first of four courses designed to prepare students for Cisco CCNA certification, and the first of two courses required for Cisco CCENT Certification. This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Career Preparation: The studies in this course will help students prepare for careers in Networking such as CCNA, CCNP, Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional. Cisco CCENT & CompTIA Network+ N10-005.	3	none

COMP 1124	Routing and Switching Essentials (CCNA-II)	This course is the second of four courses designed to prepare students for Cisco CCNA certification, and the second of two courses required for Cisco CCENT Certification. This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPng, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Career Preparation: The studies in this course will help students prepare for careers in Networking such as CCNA, CCNP, Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator, and Systems Engineer. Certification Preparation: Optional. Cisco CCENT	3	COMP 1123
COMP 1131	Microsoft Word Comprehensive	This course focuses on basic through advanced skill sets using the current Microsoft Word Office Suite software application. Students will use Microsoft Word 2010 to create, format, and edit documents, research papers with citations and references, business letters with a letterhead and tables, and documents with a title page, tables, and watermarks. Students will use templates to create a resume. Students will generate form letters, implement mail merge functions and create mailing labels, and directories. Students will creating advanced newsletters with multiple desktop publishing features and deploy document collaboration and integration tools. Advanced topics include creating a table of contents with an index, creating a template for an online form, and working with macros, document security, and XML. Students will learn project planning guidelines, how to publish Office Web pages online, saving to the Web and creating APA-MLA research papers. Students need to be efficient with operating system functions as this course focuses on the application itself with the assumption that students have effective operating system functional skills. Career Preparation: The studies in this course will help students prepare for careers in Business, Management, and general use of computer applications for nearly all organizations. It will also prepare students for careers in Computer Support, Information Technology, Administrative Support, Administrative Assistant and Help Desk/Computer Repair Technician. Certification Preparation: Optional. Certiport: MOS: Microsoft Office Word 2013 Expert Exam 77-425. Students are expected to know how to use a current Windows operating system including navigation, saving files, file management/hierarchy structure, compression, extraction, installation of programs, setting up user accounts and administrative operating system tasks. Students without this experience should take COMP 1109 Introduction to Operating Systems either before they take this course or concurrently while they are taking this course.	4	none
COMP 1132	Microsoft Access Comprehensive	This course focuses on basic through advanced skill sets using the Microsoft Access 2010 software application. Students will use Microsoft Access 2010 to create databases and database objects while learning introductory database table structure. Students will learn the concepts for querying a database, maintaining a database and to create reports, forms, multiple table forms and advanced report techniques. Students will learn to use SQL and advanced form techniques. Students will write macros, create navigation forms, PivotTables, and PivotCharts. Students will learn how to design a database and then administer a database system. This course covers the skill sets and exam objectives for the Microsoft Office Specialist (MOS) 77-885 certification exam. Career Preparation: The studies in this course will help students prepare for careers in Business, Management, and general use of computer applications for nearly all organizations. It will also prepare students for careers in Computer Support, Information Technology, Database Management, and Help Desk/Computer Repair Technician. Certification Preparation: Optional. Certiport: MOS: Microsoft Office Access 2010 Exam 77-885. Prerequisite advisory: Students are expected to know how to use a current Windows operating system including navigation, saving files, file management/hierarchy structure, compression, extraction, installation of programs, setting up user accounts and administrative operating system tasks. Students without this experience should take COMP 1109 Introduction to Operating Systems either before they take this course or concurrently while they are taking this course.	4	none
COMP 1133	Microsoft PowerPoint Comprehensive	This course focuses on basic through advanced skill sets using the current Microsoft PowerPoint Office Suite software application. Students will learn use Microsoft PowerPoint to create and edit a basic presentation, enhance a presentation with pictures and shapes, reuse a presentation and add multimedia. Students will work with information graphics, deliver and collaborate on presentations, add emphasis with text boxes, and create self-running presentations containing animation. Students will enhance presentations with hyperlinks and action buttons, develop presentations from an outline and create a photo album presentation with shapes. Student will create and customize a template and handouts using masters. Students will learn project planning guidelines, how to publish Office Web pages online, and saving presentations to the Web. This course covers the skill sets and exam objectives for the Microsoft Office Specialist (MOS) 77-422 certification exam. Career Preparation: The studies in this course will help students prepare for careers in Business, Management, and general use of computer applications for nearly all organizations. It will also prepare students for careers in Computer Support, Information Technology, and Help Desk/Computer Repair Technician and Administrative Support. Certification Preparation: Optional. Certiport: MOS: Microsoft Office PowerPoint Exam 77-422. Students are expected to know how to use a current Windows operating system including navigation, saving files, file management/hierarchy structure, compression, extraction, installation of programs, setting up user accounts and administrative operating system tasks. Students without this experience should take COMP 1109 Introduction to Operating Systems either before they take this course or concurrently while they are taking this course.	3	none

COMP 1134	Microsoft Outlook Comprehensive	This course focuses on basic through advanced skill sets using the current Microsoft Outlook Office Suite communication software application. The course learning objectives are centered on the Microsoft Office Specialist (MOS) 77-423 certification exam objectives. Students will learn use Microsoft Outlook to format message content by using character and paragraph formatting, use graphic elements such as charts and tables, and create contact records, tasks, and appointments from incoming messages. Students will create contact groups, schedule meetings, and share schedules to facilitate communication with other Outlook users. Career Preparation: The studies in this course will help students prepare for careers in Business, Management, and general use of computer applications for nearly all organizations. It will also prepare students for careers in Computer Support, Information Technology, and Help Desk/Computer Repair Technician, Administrative Assistant and Administrative Support. Certification Preparation: Optional. Certiport: MOS: Microsoft Office Outlook 2013 Exam 77-423. Prerequisite advisory: Students are expected to know how to use a current Windows operating system including navigation, saving files, file management/hierarchy structure, compression, extraction, installation of programs, setting up user accounts and administrative operating system tasks. Students without this experience should take COMP 1109 Introduction to Operating Systems either before they take this course or concurrently while they are taking this course.	1	none
COMP 1135	Microsoft Excel Comprehensive	This course focuses on basic through advanced skill sets using the current Microsoft Excel Office Suite software application. The course learning objectives are centered on the Microsoft Office Specialist (MOS) 77-427 certification exam objectives. Students will use Microsoft Excel to create charts, create analytical and financial reports, optimize data entry, create a family budget, format numerical (financial, statistical, etc.) reports, create forms, create graphing analyses, process data using what-if analyses, design reports, and create trending data. Students will learn to be proficient with advanced formulas, functions, and data analysis tools. Students will also learn to manipulate data for analysis, presentation, and collaboration. Students will learn to manipulate Excel options to customize their environment to meet varying organizational needs and enhance their productivity. Career Preparation: The studies in this course will help students prepare for careers in Business, Management, and general use of computer applications for nearly all organizations. It will also prepare students for careers in Computer Support, Information Technology, and Help Desk/Computer Repair Technician, Administrative Assistant and Administrative Support. Certification Preparation: Optional. Certiport: MOS: Microsoft Office Excel 2013 Exam 77-427. Prerequisite advisory: Students are expected to know how to use a current Windows operating system including navigation, saving files, file management/hierarchy structure, compression, extraction, installation of programs, setting up user accounts and administrative operating system tasks. Students without this experience should take COMP 1109 Introduction to Operating Systems either before they take this course or concurrently while they are taking this course.	4	none
COMP 1138	iPad Technologies	This course will help students maximize the power of their iPad and master all the versatile and fun features while using their iPad. Topics include how to configure settings, access the Internet, use Mail and Safari, and download music, movies, TV shows, ebooks, apps, games, and more. Students will get tips for taking photos and video with the camera, use FaceTime for video chatting, navigate with GPS, and connect to social networks. Students will set up, customize, sync, and back up their iPad and choose a data plan for their iPad. Students will configure mail and integrate with various email accounts and connect with social networks. A current iPad is required for this course.	3	none
COMP 1140	Survey of Web-Based Tools	This course focuses on using current technology tools for collaboration, entertainment, professional development, system security, and networking on the Internet. Innovative technologies that will be explored include many of the following: social networking sites (MySpace, Friendster, Facebook, LinkedIn), virtual technologies (virtual environments, 3D chat, avatars, and online meetings), social network integration tools (RSS feeds, wikis, blogs, mashups, podcasts), voice and video collaboration tools and file sharing services (VoIP, TokBox, Skype, Twitter, Facetime, SnapChat, Instagram, Pinterest Windows Live Mesh, Live Meeting, Animoto), security and personal safety (firewall technology, anti-spyware, anti-virus, anti-spam, phishing and identity theft, netiquette and ethnics), marketing and business tools (Flickr and E-bay), Web 3.0 application design strategies, and career opportunities on today's Web.	3	none
COMP 1204	Computer Repair I	This course addresses many of the objectives of the CompTIA A+ Hardware (220-801) and A+ Software (220-802) Certification Exams, and introduces students to the operation, diagnosis, troubleshooting, and simple maintenance of microcomputer components. Topics include hardware compatibility, system architecture, memory, storage, expansion devices, peripherals, customer service, safety, and preventative maintenance. Career Preparation: The studies in this course will help students prepare for careers such as Computer Support Specialist, PC Repair Technician, Network Administrator, Network Engineer, Systems Analyst, and Systems Engineer. Certification Preparation: Optional. CompTIA A+ Hardware (220-801) and A+ Software (220-802).	4	none
COMP 1206	Computer Repair II	This course is the sequel to COMP 1204 and addresses many of the objectives of the CompTIA A+ Hardware (220-801) and A+ Software (220-802) Certification Exams, introducing students to the operation, diagnosis, troubleshooting, and maintenance of microcomputer components. Topics include complete system assembly, maintenance, operating system architecture, installation, maintenance and troubleshooting, simple networking, viruses, data backup, and disaster recovery. Career Preparation: The studies in this course will help students prepare for careers such as Computer Support Specialist, PC Repair Technician, Network Administrator, Network Engineer, Systems Analyst, and Systems Engineer. Certification Preparation: Optional. CompTIA A+ Hardware (220-801) and A+ PC Software (220-802).	3	COMP 1204
COMP 1230	Network Essentials	This course provides individuals who are new to Microsoft Windows product client/server networking technologies with the knowledge necessary to understand and identify the tasks involved in supporting Microsoft Windows based networks. This course will introduce networking terminology, LANs and WANs, client/server networks, peer-to-peer networks, communication protocols, communication devices, OSI model, IEEE standards, media, cabling, network topologies, Ethernet, TCP/IP, IP Addressing, connectivity devices, disaster recovery. Career Preparation: The studies in this course will help students prepare for careers in Networking such as Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional. CompTIA Network + N10-005.	4	none

COMP 1253	Client Operating System Administration	This course is one of a series of Microsoft Operating System Administration and Engineering courses that help prepare students for client support and help desk MCSA Microsoft Certification. This course provides students with the knowledge and skills necessary to install and configure Microsoft Windows on stand-alone and client computers that are part of a workgroup or domain. Students work with networks configured as a domain-based or peer-to-peer environment with access to the Internet and cloud services. This course focuses on installation, configuration, and management of client computers in a network environment and the skills to administer upgrades, migration paths, disk structure, permissions, sharing, and other security issues related to file systems. Students will learn how to Install and Upgrade to Windows 8, Configure Hardware and Applications, Configure Network Connectivity, Configure Access to Resources, Configure Remote Access and Mobility, Monitor and Maintain Windows Clients, Configure Backup and Recovery Options. Career Preparation: The studies in this course will help students prepare for careers in Computer Networking and System Administration such as Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional. Microsoft 70-687.	4	COMP 1109
COMP 1305	Exploring Digital World Technologies	This course focuses on basic through advanced computer concepts with an emphasis on both the personal computer and enterprise computing. Topics include hardware, application and system software, the Internet and World Wide Web, communications, e-commerce, societal issues, database management, systems analysis and design, programming, information systems, career opportunities, certifications in the computer field, and computer trends. Students will finish the course with a solid understanding of computers, how to use computers, and how to access information on the Web. This course presents the most-up-to-date technology in an ever-changing discipline, gives students an in-depth understanding of why computers are essential components in business and society, frames the fundamentals of computers and computer nomenclature, particularly with respect to personal computer hardware and software, and the Web. Students will learn the latest trends in technology and computer concepts and how these topics are integrated into their daily lives. This course will assist students in exploring a career centered on current and emerging technologies.	3	none
COMP 1315	Computer Literacy and E-learning	This course begins with understanding and effectively using the CLC E-learning components including D2L, Google gmail, and MnSCU E-services. The course then focuses on computing fundamentals, key applications, and living online - the three standard skills sets categories of the IC3 computer literacy curriculum. The learning domains included in this course are Computer Hardware, Peripherals and Troubleshooting, Computer Software, Using an Operating System, Common Program Functions, Word Processing Functions, Spreadsheet Features, Communication with Presentation Software, Communication Networks and the Internet, Electronic Communication and Collaboration, Using the Internet and the World Wide Web, and The Impact of Computing and the Internet on Society. This course will help students prepare for the IC3 certification exam. Career Preparation: Diverse - All business and organizational careers using current computer technologies. Certification Preparation: IC3.	3	none
COMP 1398	Topics in Computer Technology	This course will cover selected topics of interest in Computer Technology. These topics could include a variety of current computer technology issues, releases, platforms, security, networking or others. Career Preparation: Information Technology, Computer Technology. Certification Preparation: None, unless specified in topic material.	1-3	none
COMP 2107	Supporting Client Operating Systems	This course provides students who are new to Microsoft client operating systems with the knowledge and skills necessary to troubleshoot basic problems end users will face while running Microsoft client operating systems in an active directory network environment, or in a workgroup environment. This is an introductory level computer-support course designed to provide an overview of operating system concepts and how to troubleshoot the current version of Microsoft client operating systems. This is the first course in the Microsoft Certified IT Professional (MCITP) certification. This course is intended for new entrants and career changers new to the IT industry who have experience using Microsoft Office and have basic Microsoft Windows navigation skills. This course is also intended for a current call center technician with six months experience looking to validate and update their support skills. Career Preparation: The studies in this course will help students prepare for careers in computer support, client support, and system support such as MCDST, systems analyst, support technician, support analyst, and help desk administrator. Certification Preparation: Optional. Microsoft 70-620. Students are expected to know how to use a current Windows operating system including navigation, saving files, file management/hierarchy structure, compression, extraction, installation of programs, setting up user accounts and administrative operating system tasks. Students without this experience should take COMP 1109 Introduction to Operating Systems either before they take this course or concurrently while they are taking this course.	3	none
COMP 2111	Security Essentials	This course addresses the objectives of CompTIA's Security+ Certification and will help prepare students to pass the Security+ Certification Exam. This course is designed to provide students with a broad-based knowledge of network security and assist them in preparing for a career in information technology or for further study in specialized security fields. Subjects covered will include, but not be limited to, the following: authentication, security attacks, malicious code, remote access, e-mail, web security, direct and file transfer services, hacking and anti-hacking utilities, wireless and instant messaging devices, media, network security topologies, intrusion detection, security baselines, cryptography, physical security, disaster recover, and computer forensics. Career Preparation: The studies in this course will help students prepare for careers such as Security Administrator, Network Administrator, Network Engineer, Systems Analyst, and Systems Engineer. Certification Preparation: Optional. CompTIA Security+ SY0-301.	4	COMP 1123 or COMP 1230

COMP 2113	Advanced Operating Systems: Command Line Administration	This course focuses on the concepts of the command line interface using the Command Prompt window, referred to as the MS-DOS prompt window in earlier versions of Windows. Topics covered include commands, syntax, switches, attributes, pipes, filters, redirection, advanced batch files, optimizing performance and troubleshooting using batch sequence processing, and how to use simple Internet-related internal commands from the command line. Both internal and external commands will be studied and applied in the command interpreter. Students will create batch files and learn how to apply these utilities in an operating system and network operating system environment. Students will build maintenance utility and automation programs using the command line interpreter. Career Preparation: The studies in this course will help students prepare for careers in information technology such as Computer Support Specialist, Network Administrator, Network Engineer, Systems Analyst, Systems Engineer, Business Analyst, Computer Support, Information Technology, and Help Desk/Computer Repair Technician.	3	COMP 1230 and COMP 1253
COMP 2115	Command Line and PowerShell Administration	This course focuses on the concepts of the command line interface using the Command Prompt window, referred to as the MS-DOS prompt window in earlier versions of Windows. Students will also be introduced to PowerShell as an alternative scripting tool. Topics covered include commands, syntax, switches, attributes, pipes, filters, redirection, advanced batch files, optimizing performance and troubleshooting using batch sequence processing, and how to use simple Internet-related internal commands from the command line. Both internal and external commands will be studied and applied in the command interpreter. Students will create batch files and learn how to apply these utilities in an operating system and network operating system environment. Students will build maintenance utility and automation programs using the command line interpreter. Students will also use PowerShell, a scripting technology and create automation of system management tasks and the creation of system management tools. Topics covered include the Windows PowerShell Command Line, object based scripting with .NET, writing PowerShell Scripts, working with variables, arrays and hashes, implementing conditional logic, using loops to process data, organizing scripts using functions, and basic system administration. Career Preparation: The studies in this course will help students prepare for careers in information technology such as Computer Support Specialist, Network Administrator, Network Engineer, Systems Analyst, Systems Engineer, Business Analyst, Computer Support, Information Technology, and Help Desk/Computer Repair Technician.	4	COMP 1109
COMP 2116	IT Project Management	This course will introduce students to the principles of managing information technology (IT) projects. This course focuses on presenting the PEMBOK Guide 5e project management principles, and preparing students for industry certifications, including CompTIA Project+ and PMI's PMP. Topics covered include project integration, scope, time, cost, quality, human resource, communications, risk, procurement, and stakeholder management as well as team building and performance measuring. Career Preparation: The studies in this course will help students prepare for careers such as Computer Support Specialist, PC Repair Technician, Network Administrator, Network Engineer, Systems Analyst, and Systems Engineer. Certification Preparation: Optional. CompTIA Project+ and PMI PMP.	3	COMP 1109
COMP 2118	Server Administration	This course is one of a series of Microsoft Server System Administration and Engineering courses that help prepare students for the Microsoft Certification. This course provides students with the knowledge and skills necessary to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a Microsoft Windows Server environment. These tasks include managing user, computer, and group accounts; managing access to network resources; managing printers; managing an organizational unit in a network based on Active Directory directory service; and implementing Group Policy to manage users and computers. Career Preparation: The studies in this course will help students prepare for careers in Networking such as Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional Microsoft Certified IT Professional (MCITP) certification 70-640. Was previously COMP 1254.	4	COMP 1230 and COMP 1253
COMP 2119	Network Infrastructure	This course is one of a series of Microsoft Server System Administration and Engineering courses that help prepare students for the Microsoft Certification. This course provides students with the knowledge and skills necessary to install, configure, maintain, and safeguard data in a Microsoft Windows Server environment. These tasks include managing, configuring, administering, and installing the Dynamic Host Configuration Protocol, Domain Name System, configuring File Services, Printers, Network Policy and Access Services, and Securing a Windows Environment. Career Preparation: The studies in this course will help students prepare for careers in Networking such as Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional Microsoft Certified IT Professional (MCITP) certification 70-642. Was previously COMP 1255.	4	COMP 2118
COMP 2120	Network Planning and Design	This course is one of a series of Microsoft Server System Administration and Engineering courses that help prepare students for the Microsoft Certification. This course provides students with the knowledge and skills necessary to plan and design a TCP/IP physical and logical network, plan and troubleshoot a routing strategy, plan a Dynamic Host Configuration Protocol (DHCP) strategy, optimize and troubleshoot DHCP, plan a Domain Name System (DNS) strategy, optimize and troubleshoot DNS, plan and design Deploying IIS and Active Directory Certificate Services, and network access. Career Preparation: The studies in this course will help students prepare for careers in Networking such as Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional Microsoft Certified IT Professional (MCITP) certification 70-646.	4	COMP 2119
COMP 2121	Directory Services Infrastructure	This course is the final course in a series of Microsoft Server System Administration and Engineering courses that help prepare students for the Microsoft Certification. This course is a capstone course which provides students with the knowledge and skills to successfully plan, design, implement, configure, and troubleshoot a Microsoft Windows Server Active Directory directory service infrastructure. The course focuses on a review of all previous Microsoft Server courses, including Business Continuity. Windows Server directory service environment, including forest and domain structure, Domain Name System (DNS), site topology and replication, organizational unit structure and delegation of administration, Group Policy, and user, group, and computer account strategies. Career Preparation: The studies in this course will help students prepare for careers in Networking such as Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional Microsoft Certified IT Professional (MCITP) certification 70-647.	4	COMP 2120

COMP 2126	Wireless Networking	This course focuses on the evolving need of home and office wireless technologies and mastering wireless local area networks. The course covers aspects of wireless networks with a particular emphasis on wireless network security and design. Course material includes implementing practical hardware, software and network configurations for wireless networking. This course will address the objectives of the CWNA (Certified Wireless Network Administrator) industry certification. The studies in this course will help students prepare for careers such as Security Administrator, Network Administrator, Network Engineer, Systems Analyst, Support Technician, and Systems Engineer. Certification Preparation: Planet3 Wireless CWNA	3	none
COMP 2127	Hardware/Software Evaluation	This course focuses on the evaluation of emerging product technologies. The content will vary with new release hardware components and software betas. Evaluation criteria will be established for the product evaluation and students will work through a systematic evaluation process. Career Preparation: The studies in this course will help students prepare for careers such as Security Administrator, Network Administrator, Network Engineer, Systems Analyst, and Systems Engineer.	2	COMP 1109
COMP 2130	Scaling Networks (CCNA-III)	This course is the third of four courses designed to prepare students for Cisco CCNA certification. This course describes the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement a WLAN in a small-to-medium network. Career Preparation: The studies in this course will help students prepare for careers in Networking such as CCNA, CCNP, Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional. Cisco CCNA.	3	none
COMP 2131	Connecting Networks (CCNA-IV)	This course is the fourth of four courses designed to prepare students for Cisco CCNA certification. This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement virtual private network (VPN) operations in a complex network. Career Preparation: The studies in this course will help students prepare for careers in Networking such as CCNA, CCNP, Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional. Cisco CCNA.	3	COMP 2130
COMP 2132	Implementing Cisco IOA Network Security	CCNA Security helps students prepare for entry-level security specialist careers by developing an in-depth understanding of network security principles and the tools and configurations needed to secure a network. The curriculum provides an introduction to the core security concepts and skills needed for the installation, troubleshooting, and monitoring of network devices to maintain the integrity, confidentiality, and availability of data and devices. CCNA Security offers the following: provides an in-depth, theoretical overview of network security principles as well as the tools and configurations available; emphasizes the practical application of skills needed to design, implement, and support network security; supports the development of critical thinking and complex problem-solving skills through hands-on labs. Career Preparation: The studies in this course will help students prepare for careers in Networking such as CCNA, CCNP, Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator, and Systems Engineer. Certification Preparation: Optional. Cisco CCNA Security.	3	COMP 1124
COMP 2133	Fundamentals of Voice Over IP	This course covers associate-level knowledge and skills required to administer a voice network, the required skill set for specialized job roles in voice technologies such as voice technologies administrator, voice engineer, and voice manager, and important skills in VoIP technologies such as IP PBX, IP telephony, handset, call control, and voicemail solutions. Students will learn the skills and knowledge related to the Cisco Unified Communications Manager, which is typically employed by large organizations such as governments, large companies, and colleges, as well as the Cisco CallManager Express (CME) and Cisco Unity Express (CUE) solutions typically used by medium and small organizations such as companies with less than 2,000 employees, retail businesses, and small school districts. Career Preparation: The studies in this course will help students prepare for careers in Networking such as CCNA, CCNP, Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator, and Systems Engineer.	3	COMP 1124
COMP 2150	Windows Server Administration I	This course is one of a series of Microsoft Server System Administration and Engineering courses that help prepare students for the Microsoft Certification. This course prepares students for the first of a series of three exams which validate the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure into an existing enterprise environment. This course focuses and prepares a student on real skills for real jobs and prepares students to prove mastery of core services such as the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure, Active Directory and networking services. In addition, this course also covers such valuable skills as: Managing Active Directory Domain Services Objects, Automating Active Directory Domain Services Administration, Implementing Local Storage, Implementing File and Print Services, Implementing Group Policy, Implementing Server Virtualization with Hyper-V. Career Preparation: The studies in this course will help students prepare for careers in Networking such as Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. This course is mapped to the 70-410 Installing and Configuring Windows Server 2012 exam objectives.	5	COMP 1230 or COMP 1123

COMP 2151	Windows Server Administration II	This course is one of a series of Microsoft Server System Administration and Engineering courses that help prepare students for the Microsoft Certification. This course prepares students for the second of a series of three exams which validate the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure into an existing enterprise environment. This course focuses and prepares a student on real skills for real jobs and prepares students to prove mastery of core services such as user and group management, network access, and data security. In addition, this course also covers such valuable skills as: Implementing a Group Policy Infrastructure, Managing User and Service Accounts, Maintaining Active Directory Domain Services, Configuring and Troubleshooting DNS, Configuring and Troubleshooting Remote Access, Installing, Configuring, and Troubleshooting the Network Policy Server Role, Optimizing File Services, Increasing File System Security, Implementing Update Management. Career Preparation: The studies in this course will help students prepare for careers in Networking such as Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. This course is mapped to the 70-411 Administering Windows Server 2012 exam objectives.	5	COMP 2150
COMP 2152	Windows Server Administration III	This course is one of a series of Microsoft Server System Administration and Engineering courses that help prepare students for the Microsoft Certification. This course prepares students for the third of a series of three exams which validate the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure into an existing enterprise environment. This course focuses and prepares a student on real skills for real jobs and prepares students to prove mastery of Advanced Windows Server 2012 Services such as advanced configuring tasks necessary to deploy, manage, and maintain a Windows Server 2012 infrastructure. It covers such skills as fault tolerance, certificate services, and identity federation. In addition, this course also covers such valuable skills as: Implementing Advanced Network Services, Implementing Advanced File Services, Implementing Dynamic Access Control, Implementing Network Load Balancing, Implementing Failover Clustering, Implementing Disaster Recovery, Implementing Active Directory Certificate Services (AD CS), Implementing Active Directory Federation Services (AD FS).Career Preparation: The studies in this course will help students prepare for careers in Networking such as Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. This course is mapped to the 70-412 Configuring Advanced Windows Server 2012 Services exam objectives.	5	COMP 2151
COMP 2153	Client Operating System Management	This course is one of a series of Microsoft Operating System Administration and Engineering courses that help prepare students for client support and help desk MCSA Microsoft Certification. This course provides students with the knowledge and skills necessary to master configuration or support for Windows 8 computers, devices, users and associated network and security resources. Students work with networks configured as a domain-based or peer-to-peer environment with access to the Internet and cloud services. Students will also work on Designing an Installation and Application Strategy, Maintaining Resource Access, Maintaining Windows Clients and Devices, and Managing Windows 8 Using Cloud Services and Microsoft Desktop Optimization Pack. Career Preparation: The studies in this course will help students prepare for careers in Computer Networking and System Administration such as Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional. Microsoft 70-688.	4	COMP 1253
COMP 2154	Advanced Network Defense	This course examines theoretical understanding of network security principles as well as the tools and configurations available. The course will emphasize the practical application of skills needed to design, implement, and support network security. Students will develop critical thinking and complex problem solving skills using simulation-based scenarios that promote the exploration of networking security concepts, allowing students to experiment with network behavior and ask “What if” questions. Students will be equipped with the knowledge and skills needed to prepare for entry-level security specialist careers. The course will cover modern network security threats, securing network devices, authentication, authorization and accounting, firewall technologies, intrusion prevention, cryptography, implementing virtual private networks, managing a secure network, and implementing the Cisco adaptive security appliance. Career preparation: GSEC, GSED, CCNA, MCTA, MCSA, security analyst, information security officer, network security administrator, network security engineer, security systems analyst, (LAN) administrator, wide area network (WAN) administrator, IT support technician, and network manager. Certification preparation: GIAC Security Essentials (GSEC), GIAC Certified Enterprise Defender (GCED), GIAC Certified Intrusion Analyst (GCIA), Security Certified Network Professional (SCNP)	3	COMP 2111
COMP 2155	Network Intrusion	This course examines ethical hacking and information systems security auditing. Students will focus on the current security threats, advanced attack vectors, and practical real time demonstration of the latest hacking techniques, methodologies, tools, tricks, and security measures. The course will explore pentesting (Penetration Testing), hacking and securing systems. The lab intensive environment provides student’s in-depth knowledge and practical experience with the current security systems. Foundational concepts include how perimeter defenses work and scanning and attacking networks. Students will learn how intruders escalate privileges and what steps can be taken to secure information technology system. Content topics include: intrusion detection, policy creation, social engineering, Distributed Denial-of-Service (DDoS) attacks, buffer overflows, and virus creation. Career preparation: GSEC, GSED, CCNA, MCTA, MCSA, security analyst, information security officer, network security administrator, network security engineer, security systems analyst, (LAN) administrator, wide area network (WAN) administrator, IT support technician, and network manager. Certification preparation: GIAC Security Essentials (GSEC), GIAC Certified Enterprise Defender (GCED), GIAC Certified Intrusion Analyst (GCIA), Security Certified Network Professional (SCNP)	3	COMP 2111
COMP 2160	Ethics in Information Technology	This course will introduce students to ethical topics and situations that exist in, and are possibly unique to, information technology. Actual case studies will be explored, and students will earn practical advice on how to deal with these issues if they arise. Topics covered will include a definition of ethics, ethics for IT professionals and users, computer crime, internet crime, privacy laws, constitutional freedoms, intellectual property, software development, employment issues, and industry codes of ethics. Career Preparation: The studies in this course will help students prepare for careers such as Computer Support Specialist, PC Repair Technician, Network Administrator, Network Engineer, Systems Analyst, Systems Engineer, IS Manager and CIO.	3	COMP 1109

COMP 2170	Linux Systems	This course introduces students to the Linux operating system and will help students prepare for entry-level Linux certification. Topics covered include system architecture; Linux installation and package management, GNU and Unix commands, devices, Linux file systems and file system hierarchy standards, shells, scripting and data management, user interfaces and desktops, administrative tasks, essential system services, networking fundamentals, and security. The studies in this course help students prepare for careers in Networking, such as Linux Administrator, Network Administrator, Network Engineer, Systems Analyst, LAN Administrator, WAN Administrator and Systems Engineer. Certification Preparation: Optional, CompTIA LX0-101 and LX0-102 and LPI LPIC-1 (101 and 102)	4	COMP 1230, COMP 1253
COMP 2202	Computer User Support	This course provides an overview of microcomputer user support responsibilities. This course provides students with a comprehensive understanding of the helpdesk environment and the knowledge, skills, and abilities necessary to work in the user support industry. Students will learn problem-solving, communication skills, working individually and in teams. Troubleshooting strategies and tools will be analyzed and used. Studies include historical changes in computer use, end-user application support, help systems, communication strategies, customer satisfaction techniques, evaluation techniques, industry and organizational standards, needs assessments and documentation. Career Preparation: The studies in this course will help students prepare for careers in technology support such as Computer Support Specialist, Help Desk Technician, and Information Technology Specialist. Was previously COMP 1202.	3	COMP 1204
COMP 2213	Computer Careers Internship	This internship provides students with on-the-job experience in the student's computer career major. A competency-based training plan will be developed for each student and the employer. This is a cooperative program between Central Lakes College and a participating organization to allow the student to work in an on-the-job situation. Career Preparation: The studies in this course will help students prepare for careers in Computer/Information Technology such as Computer Support Specialist, Network Administrator, Network Engineer, Systems Analyst, Systems Engineer, and Business Analyst, Linux Administrator, Help Desk Technician, MCSE, MCSA, LAN Administrator, WAN Administrator depending on the major of study. Certification Preparation: None.	1-6	instructor's consent
COMP 2214	Help Desk Internship I	This internship provides students with on-the-job experience in a computer user support field. A competency-based training plan will be developed for each student and the employer. This is a cooperative program between Central Lakes College and a participating organization to allow the student to work in an on-the-job setting situation. Career Preparation: The studies in this course will help students prepare for careers in Computer/Information Technology such as Computer Support Specialist and Help Desk Technician. Certification Preparation: None.	5	instructor's consent
COMP 2216	Help Desk Internship II	This is a continuing internship providing students with additional on-the-job experience in the student's computer career major. A competency-based training plan will be developed for each student and the employer. This is a cooperative program between Central Lakes College and a participating organization to allow the student to work in an on-the-job situation. The studies in this course will help students prepare for careers in Computer/Information Technology such as Computer Support Specialist, Network Administrator, Network Engineer, Systems Analyst, Systems Engineer, and Business Analyst, Linux Administrator, Help Desk Technician, LAN Administrator, WAN Administrator depending on the major of study.	5	COMP 2214
COMP 2220	Introduction to Computer Programming	This course is an introduction to the techniques used in structured programming using current programming languages. Students will learn how to design and code their own programs as well as testing and debugging techniques. The students are expected to develop projects using object-oriented design methods. Career Preparation: The studies in this course will help students begin preparation for careers in information technology such as Computer Support Specialist and Network Administrator, Network Engineer, Systems Analyst. Systems Engineer and Business Analyst.	4	COMP 1109
COMP 2222	Introduction to Visual Basic and Scripting	This course provides an overview of Visual Basic programming and scripting and entry-level programming fundamentals including variables, controls, data types and structures, emphasizing design and development considerations for Windows based application programs and operating systems. Students will write Visual Basic code to perform operations using arrays, manipulating strings, and performing file input and output functions. Topics include: the Visual Basic and scripting development environment, intrinsic controls, data types, control structures, procedures and functions, arrays, user-defined types, file handling, Visual Basic as an object oriented language, and writing scripts for systems calls and command line arguments. Career Preparation: The studies in this course will help students begin preparation for careers in information technology such as Computer Support Specialist and Network Administrator, Network Engineer, Systems Analyst. Systems Engineer and Business Analyst.	3	COMP 1109
COMP 2314	Introduction to Project Manager	This course addresses the objectives covered by the CompTIA IT Project+ Certification Exam, and is designed to introduce students to project management, with an emphasis on IT project management. Topics include project initiation and scope definition, project planning, project execution, control and coordination, and project closure, acceptance, and support. Career Preparation: The studies in this course will help students prepare for careers in Project Management such as Computer Support Specialist, Network Administrator, Network Engineer, Systems Analyst, Systems Engineer, Business Analyst, IT Project Manager, and Senior IT Project Manager. Certification Preparation: Optional. CompTIA Project+.	3	none
CRJU 1101	Criminal Justice	This is an introduction into the American Criminal Justice System. The course will cover police, court, and correctional facilities, and given an overview of how our criminal justice system works. Discussion on various topics will analyze procedures and cases that made our laws what they are today.	3	none
CRJU 1104	Juvenile Justice	This course will cover the study of juvenile delinquency, the theories of causation, and the methods of corrections. It will also examine the correction systems which are offered for juvenile offenders. This class will cover the mandatory Minnesota Post Board categories that are required by the State of Minnesota licensing examination.	3	none
CRJU 1106	Corrections & Probation	This course will examine the historical and contemporary correctional theories and programs with emphasis on the current organizational structure. Probation, Parole, and alternatives to incarceration will be explored.	3	none
CRJU 1108	Community Corrections	This course addresses the concepts and practices of community corrections. The specific content includes halfway house program activities, restitution projects and program coordination, work release activities, court diversion processes and programs, truancy tracking programs, and community outreach initiatives.	3	none

CRJU 1109	Report Writing in Law Enforcement	This course will teach the students a professional approach to law enforcement report writing procedures required by police officers. Spelling, grammar, and punctuation will be mandatory in this course. The focus will be on documenting the chain of evidence and chronological events applicable to criminal investigations. Application of oral interviewing and interrogation skills will be included. Forms required by law enforcement personnel will be covered in class along with the use of a computer lab classroom.	3	none
CRJU 1112	Police and the Community	This course will study the historical and contemporary roles of policing in society, strategies for positive police-community relations and job-related issues for police officers. Students will be introduced to positive principles of interaction between the police officer and citizens of the community in which the officer serves. The course will also cover contemporary police practices which include community-oriented policing and problem-oriented policing.	3	none
CRJU 1125	Personal Protection Awareness	This course will enhance the student's ability to learn survival techniques, increase confidence levels with successful applications of physical techniques. This course includes but not limited to PPCT's survival by prevention psychology, principles of avoidance, passive releases and escapes. The course will also include survival stress and provide information that will enhance safety in combative situations such as Sexual Harassment and Rape Prevention and provide recommendations regarding issues related to critical incident management.	2	none
CRJU 2101	Criminal Law	This is a course in substantive law, including the elements of major crimes and their possible legal defenses. This course will also familiarize students with the Minnesota Criminal Statutes and help prepare students by covering a large portion of the Minnesota POST objectives.	3	CRJU 1101
CRJU 2102	Criminal Procedures	This course covers the study of constitutional law and criminal procedures utilizing the opinions of the U.S. Supreme Court and the Minnesota Rules for Criminal procedures. Emphasis is placed on the constitutional guidelines for law enforcement, rules of arrest, search and seizure, and the Minnesota Rules of Procedures.	4	CRJU 1101
CRJU 2106	Fitness for Law Enforcement	This course will prepare the student for the law enforcement physical fitness assessment approved by the Minnesota P.O.S.T. Board. Students will perform exercises at the direction of the Cooper Law Enforcement Fitness Specialist to enhance the students' conditioning, agility, flexibility, cardiovascular endurance and strength. This course will also cover nutrition and maintaining total fitness.	2	none
CRJU 2108	Criminal Investigations	This is a course in substantive law, including the elements of major crimes and their possible legal defenses. This course will also familiarize students with the Minnesota Criminal Statutes and help prepare students by covering a large portion of the Minnesota POST objectives.	3	none
CRJU 2110	Topics in Criminal Justice	This course will address those issues currently under public scrutiny. These would likely include, but not be limited to, deadly force and use of force, capital punishment, racism in the system, sexism within the justice system, police corruption, abuse of authority throughout the system, the code of silence found within the system, and other relevant topics of timely nature.	1-3	none
CRJU 2112	Ballistic and Firearms Identification	This course is a study of internal and external ballistics and their relationships to criminal investigations. Included in the coursework will be comprehensive analysis of projectile striation operational signatures, projectile impact signatures, and gunshot powder residue analysis, both spectrographically and reproductions. Students will be required to complete an investigatory process that includes testimony in mock court.	4	none
CRJU 2114	Traffic Law	This course covers the Minnesota Traffic Statutes and how they are applied, interpreted, and enforced. Vehicle registration, vehicle insurance and safety responsibility acts, drivers license laws, rules and regulations as they relate to snowmobiles and all-terrain vehicles, motorcycles and other motor vehicles will be covered.	3	none
CRJU 2116	Science of Fingerprints	This course is a study of fingerprints as it relates to criminal investigations and the identification of suspects and victims of crimes. The student will learn the Henry system of obtaining rolled impressions and the techniques of computerization in locating and filing unknown latent prints. Dusting, lifting, and photographing latent prints in various mediums will also be examined. Laser detection and ultraviolet location of latent prints will be presented in class.	4	none
CRJU 2118	Criminal Justice Photography	A primary facet of criminal investigation is founded in recording of evidence and the crime scene for trial via still and video photography. This course of study will take the student through various investigative endeavors which create photographic tasks similar to actual crime scenes and criminal investigations which require photographic documentation.	4	none
CRJU 2124	General Evidence and Identification Preparation	A substantial component of criminal investigations is found in crime scene reconstruction. This course enables the student to undertake a physical examination of various forms of evidence likely encountered in a variety of crime scene investigations. Plaster and plastic reproductions of latent tracks, number restoration, crime scene sketching, and the collection and preservation of physical evidence will be examined. Related photography will also be a part of the course.	4	none
CRJU 2135	Internship	This is a practical learning experience in criminal justice in the area of the student's interest. This course is usually scheduled after the student has completed one year of course work. Coordinator and agency approval is required. Students are not guaranteed an internship.	1-8	instructor's permission
CRJU 2140	Law Enforcement & Behavioral Science	This course examines the dark side of law enforcement. The student will explore corruption, deviancy, and criminality found within police departments nationally, and discuss how it impacts upon relations within poor and minority citizens.	3	none
CRJU 2150	Constitutional Law and the Justice System	This course gives students an appreciation and understanding of the United States Constitution and its importance within our democracy. The historical basis and development of constitutional concepts will be examined. Specific attention will be paid to constitutional limitations upon government authority over private citizens. In addition to stressing amendments with the Bill of Rights , the course will look at the 14th Amendment. We will address the Minnesota POS T Board learning objectives relating to constitutional law.	3	none
CRJU 2160	Use of Force	Use of force includes basic techniques and tactics for a Peace Officer to defend against different types of assaults against an officer and the reasonable force necessary to overcome the resistance being forced upon the officer in defending himself/herself. This course will decrease the likelihood of injury to the officer, and minimize the use of excessive force.	2	CRJU 2101, CRJU 2106, and CRJU 2114, cumulative GPA of 2.0 or higher, current/valid MMPI (psychological exam), valid physician's sign off sheet, valid driver's license, background check completed
CRJU 2162	Firearms	Firearms include basic techniques and tactics for a Peace Officer to utilize during a deadly force encounter that would involve an officer utilizing his/her service weapon. This course also includes basic firearms safety, care and cleaning of service weapons and basic firearms shooting principles.	3	CRJU 2101, CRJU 2106, and CRJU 2114, cumulative GPA of 2.0 or higher, current/valid MMPI (psychological exam), valid physician's sign off sheet, valid driver's license, background check completed

CRJU 2164	Patrol Practicals	Patrol Practicals cover all types of instruction which involve patrol related duties. This course will acknowledge emergency vehicle operations and factors and duties related to patrol operations. Proper patrol techniques involving traffic stops, felony stops, crimes in progress, search warrant procedures, building searches, EDP responses, and crash investigations will be examined. Patrol procedures for SFST/DWI, interview/interrogations will be critical to the student's learning experience in patrol practicals. Drugs and cell phone crimes will illustrate some of the common issues involved in solving crimes in today's society. Proper patrol function and basic communication exercises during patrol practicals will enhance the student's ability to recognize a threat and evaluate each scenario situation.	5	CRJU 2101, CRJU 2106, and CRJU 2114, cumulative GPA of 2.0 or higher, current/valid MMPI (psychological exam), valid physician's sign off sheet, valid driver's license, background check completed
CRJU 2166	Tactical Communications/Relations	Tactical Communications and Relations provides the student with the confidence and knowledge to effectively communicate with the public, courts, and police administration. The student will become familiar with other cultures and lifestyles. The student will also gain an understanding of the dangers of hazardous materials and identify warning signs in relation to hazardous materials.	2	CRJU 2101, CRJU 2106, and CRJU 2114, cumulative GPA of 2.0 or higher, current/valid MMPI (psychological exam), valid physician's sign off sheet, valid driver's license, background check completed
CRJU 2311	Basic Firearms	This course will cover the basic fundamentals of handguns and shotguns. Nomenclature of firearms will be covered, along with shooting. This is a preparation for students who are unfamiliar with firearms, so that they may successfully complete the skills component to be a licensed police officer.	1	CRJU students only
CRJU 2315	POST Prep	This course is a review of information that is contained in the "Learning Objectives for Professional Peace Officer Education," as approved by the Minnesota Board of Peace Officer Standards and Training. Course information is divided into five parts to match each of the five categories as found in the "Learning Objectives for Professional Peace Officer Education." The five categories will cover the following information: Category One (Practical Applications and Techniques), Category Two (The Criminal justice System: Civil and Criminal Law), Category Three (Community Policing), Category Four (Victims and Victims' Rights). Category Five (Leading, Managing and Communicating).	1	none
CRJU 2399	Seminar in Police Administration	This course takes a broad look at management in law enforcement and the challenges that comes with being a supervisor. Basic management skills, personal skills, managing problems, hiring personnel, budgeting, and deploying law enforcement resources to improve productivity will be discussed.	3	none
CULA 1101	Culinary Techniques and Terminology	This course provides an overview of basic kitchen skills, such as knife handling, safety, sanitation, culinary terms, and equipment identification.	1	none
CULA 1104	Applied Food Safety and Sanitation	This course provides in-depth knowledge of food safety and sanitation. Students will learn all facets of proper food handling, use, temperature, storage, and safety in a kitchen environment. Upon competition of the course, students will pass the ServSafe Food Manager certification.	1	none
CULA 1107	Culinary Math and Spreadsheet Analysis	This course explores the math needed in a kitchen environment to assist in measuring, conversions, weights, and scaling. Spreadsheet analysis will be used to demonstrate costing, volume and profit, inventory, price analysis, temperature control limits, and recipe breakdown.	2	none
CULA 1110	Food Production Lab I	This course introduces students to foundational skills in commercial cooking. Students will learn kitchen sanitation and safety; historical and national influences on food; preparation of stocks, soups, and sauces; and the selection and use of herbs and spices.	3	none
CULA 1113	Food Production Lab II	In this course students learn fruit, vegetable, and starch identification and cookery. Students will also learn to prepare salads, salad dressings, and breakfast items. Employability traits such as professionalism, communication, accountability, and productivity will be covered.	3	none
CULA 1116	Food Production Lab III	In this course, students will learn the techniques of roasting, broiling, stewing, braising, poaching, sautéing, and frying. Students will learn how to process meats, poultry, and seafood. Emphasis will be placed on production techniques, menu selection, food presentation, and quality. This course will also review basic cooking techniques and methods and will strengthen their understanding of culinary terminology, proper care and use of tools, and sanitation and safety techniques.	3	none
CULA 1119	Garde and International Flavors	This course covers practical applications of cold food preparation and presentation with an emphasis on international cookery. Students will create hors d'oeuvres and appetizers, buffet salads, pates, sausages, smoked foods, and cheeses. Traditional approaches, elements of artistry, new culinary concepts, and innovative methods will be addressed.	2	none
CULA 1122	Food Identification and Purchasing	This course focuses on specification requirements for purchasing major types of foods, beverages, and non-foods. Students will learn product identification and proper receiving, storage, and inventory control methods. Nutrition concepts will also be covered.	1	none
CULA 1125	Introduction to Baking and Pastry Techniques	This course provides an overview of the concepts of baking and pastry production, including proper tools and formulas. Skills developed will include breads, sweet doughs, choux paste, pies, mousses, tarts, and beginning cakes.	2	none
CULA 1128	Internship I	The culinary Internship I is designed to provide the student with a purposeful occupational experience. Since each internship is an individualized experience, a training plan is specifically created for each student in conjunction with the training site to which the student is assigned.	1-6	none
CULA 1131	Internship II	The culinary Internship II is designed to provide the student with a purposeful occupational experience. Since each internship is an individualized experience, a training plan is specifically created for each student in conjunction with the training site to which the student is assigned.	1-6	none
CULA 1134	Internship III	The culinary Internship III is designed to provide the student with a purposeful occupational experience. Since each internship is an individualized experience, a training plan is specifically created for each student in conjunction with the training site to which the student is assigned.	1-6	none
DENT 1106	Dental Orientation & Anatomy	This course will focus on correct pronunciation, spelling and the meaning of terms used in the dental vocabulary. The terminology presented in this course will be utilized by the student throughout the Dental Assisting program. This course will focus on identifying structures of the head and neck and describe their functions to include the skull, face, mandible, hard palate, muscles of mastication, sinuses, oral cavity, salivary glands, nerves and blood supply. This course will focus on the development of the tissues and organs found in the oral cavity, the structural components of the hard and soft tissues and the detailed anatomy of the adult and primary dentition.	2	none
DENT 1108	General Anatomy	This course provides an introductory level education for health professionals who need a basic understanding of anatomy, physiology, and the interrelationships between the structures and functions of these systems. The organ systems include integumentary, skeletal, muscular, nervous, sensory, endocrine, circulation, respiratory, digestive, excretory, and reproductive systems.	2	none
DENT 1110	Managing Medical Emergencies	This course is designed to provide basic knowledge of how to handle medical emergencies. It provides the Dental Assisting student with the basic skills and knowledge necessary in order to function effectively as a member of the dental team.	1	none

DENT 1114	Pathology, Pharmacology, & Law	This is course is designed to provide a knowledge of the diseases of the oral cavity, a basic knowledge of drugs, and a knowledge of professional ethics and dental law.	3	DENT 1106
DENT 1116	Dental Clinic I	This course is designed to give the student a practical application of chair-side procedures within a clinical environment. It will emphasize those procedures considered expanded functions in the state of Minnesota.	7	DENT 1106
DENT 1118	Dental Radiology I	This course is designed to enable the student to possess the knowledge to allow them to identify landmarks and mount various series of radiographs. It provides the student with the knowledge in the properties of x-rays, the generation of x-rays, basic ionizing radiation information, machine components and identification of the paralleling technique. Darkroom technique and radiology infection control protocol will also be identified.	3	None
DENT 1120	Preventive Dentistry	This course is designed to provide the student with the knowledge to instruct a patient in oral hygiene methods and oral hygiene aids. The course will deferentiate intrinsic and extrinsic stains of the teeth. The use of fluoride therapies will be explained and idenitfied. The signs and symptoms of periodontal disease will be explained. The course will cover basic nutrition and its relationship to dental health.	2	none
DENT 1123	Dental Clinic II	This course is designed to give the student a practical application of chair-side procedures within a clinical environment. It will emphasize those procedures considered expanded functions in the state of Minnesota.	9	DENT 1116, DENT 1118, DENT 1106, DENT 1120
DENT 1124	Biomaterials	This course is, designed to provide knowledge of dental materials to include the properties, application, and mixing technique of each material. It will cover the identification of dental materials hazardous components and how to handle the material along with the correct disposable method of the hazardous material.	2	none
DENT 1129	Dental Radiology II	This course is a continuation of Dental Radiology I with emphasis on patient management, radiation safety, additional radiographic techniques and legal issues relating to radiology.	2	DENT 1118
DENT 1132	Dental Specialties	This course is designed to provide the student with a knowledge of terminology, instruments, procedures and the dental assistants role in the specialty areas of oral surgery, endodontics, orthodontics, periodontics, prosthodontics, and pediatric dentistry.	2	DENT 1106
DENT 1133	Principles of Practice Management & Communication	This course teaches general principles of communication in health care settings. Specific emphasis is placed on verbal and nonverbal skills, assertiveness and confidentially in a variety of situations to include receptionist, office manager, business manager, insurance clerk, records manager, data processor, appointment clerk and bookkeeping. It will cover the use of the dental software system Dentrix and operation of basic office equipment.	2	DENT 1106
DENT 1150	Dental Internship	This course is designed to provide the student with the opportunity of a practical application of chair-side procedures within a dental practice/facility environment. The student's progress is monitored by an instructor and supervised by a licensed dentist.	1-7	instructor's permission
DENT 1340	Dental Review	This course is designed to provide the student with the opportunity to review for the national certification and state registration exams.	1	instructor's permission
DENT 1342	Topics in Dentistry	This course will cover selected topics of interest in Dental Assisting.	1-4	none
DHET 1103	Introduction to Construction Equipment	This course will introduce students to various makes and models of construction equipment and safety related to the basic operation of construction equipment.	1	none
DHET 1107	Electrical Theory	This course covers the theory, principles of operation, troubleshooting, testing, maintenance, and repair techniques of electrical components and systems found on modern construction equipment and trucks. Battery starting, charging, accessory systems, electronic controls will be emphasized.	3	none
DHET 1108	Electrical Lab	This course is associated with the electrical theory course. Students will be assigned lab projects relating to testing and repair of electrical systems and components used on construction equipment and trucks.	5	none
DHET 1117	Engine Theory	This course covers Engine and Electrical related Safety concerns relating to general shop practices and tools used when maintaining, diagnosing, and repairing Engine and Electrical systems and components. The Theory and principals of Engine systems, Fuel systems, components, and sub-assemblies used on construction, mobile, and truck related systems will be covered.	3	none
DHET 1118	Engine Lab	This course is associated with the engine theory class. Students will be assigned lab projects relating to the troubleshooting and repair of diesel engines used on construction equipment and trucks.	5	none
DHET 1123	Customer Service & Service Management	In this course the student will gain the basic skills necessary to provide customer service and service management both in the shop and in the field as a professional service technician. The student will be introduced to the organization and management skills required by parts and service personnel. The student will understand how to properly complete a work order.	1	none
DHET 1125	Hydraulic Theory	This course covers the theory and operation of hydraulic and hydrostatic components and systems used on construction equipment and truck related systems. Reading and understanding hydraulic schematics will be emphasized.	3	none
DHET 1126	Hydraulic Lab	This course is associated with the hydraulic theory courses. Students will be assigned lab projects relating to troubleshooting and repair of hydraulic and hydrostatic components and systems used on construction equipment and truck related systems.	5	none
DHET 1128	Power Train Theory	This course covers the theory and operations of power shift and other hydraulically shifted transmissions, differentials, final drives, and undercarriages used on construction equipment. Manual non-twin countershaft transmission will also be covered.	2	none
DHET 1129	Power Train Lab	This course is associated with the power train theory course. Students will be assigned lab projects relating to troubleshooting, failure analysis, and repair of power train components related to construction equipment.	5	none
DHET 1130	Diesel Internship	The Diesel internship is an opportunity to earn college credit through an individualized occupational experience that recognizes knowledge and skills that can be learned on the job.	1-6	instructor's permission
DHET 1132	On Highway Vehicle Systems Theory	This course covers the theory, operation, testing, and repair of compressed air systems, air and hydraulic brakes, steering, suspension, clutches, manual transmissions, differentials, and HVAC systems found on on-highway construction vehicles.	3	DHET 1107 and DHET 1117, or DHET 1125 and DHET 1128
DHET 1133	On Highway Vehicle Systems Lab	Students will be assigned lab projects typically relating to repairs made in a heavy equipment repair facility. Emphasis will be on testing and repairing air, hydraulic brake systems, steering suspension, clutches, manual transmissions, differentials, and HVAC systems.	4	DHET 1107 and DHET 1117, or DHET 1125 and DHET 1128
DHET 1135	Welding for Diesel Equipment	This course covers the basic welding techniques used for wire (MIG), arc and oxyacetylene welding and cutting used in the diesel and heavy equipment field. This course will also cover the different types of welding materials and metals and the different welding positions used.	1	none
DHET 1310	Trade Math	This course covers topics used in the diesel mechanic industry. Some of the topics of this course include calculations involving threads, piston displacement, job tickets, and Ohms Law. Students will also read measuring devices and scales commonly used in a shop.	2	none

ESCI 1400	Geology of National Parks	This introductory course is a survey of the principles of geology, thematically centered on the processes that shaped the continent of North America, with special emphasis on the National Parks and Monuments of the United States. It includes topics such as plate tectonics, mountain building, volcanoes, faults and faulting, erosion by water, wind, and ice, ice ages, glacial landscapes, fossilization, and geologic time. Students will apply newly acquired geologic skills to case studies of individual national parks. MnTC Goals 3 and 10	3	NG Accuplacer Reading Score 237+
ESCI 1405	Astronomy	Is a survey of current day space observations and explorations at the conceptual level. The course is designed as an introduction to the study of astronomy and approaches the physics of planetary and stellar investigations from a perspective suitable for the motivated but non-mathematically-oriented liberal arts student. In addition to presenting an introduction to the basics of observing the night sky, the course surveys the latest observations, discoveries and theories in the rapidly developing areas of comparative planetology, stellar evolutionary processes, black holes, quasars, and other non-thermal phenomena. Finally, the course summaries the latest cosmological theories about the fundament nature of the universe in light of the best information available from observational platforms such as the Hubble Space Telescope. MnTC Goal 3	4	NG Accuplacer Reading Score 237+
ESCI 1421	Minnesota Geology	This is an introduction to the unique geologic history of Minnesota. The course is designed for the science and non-science major yearning for insight into the varied and interesting geology of Minnesota. The course includes the geologic history, mineral resources, rocks, waters and local geology. Environmental concerns pertinent to Minnesota will also be considered. Field trips outside of scheduled class and lab time are required. MnTC Goal 3	3	NG Accuplacer Reading Score 237+
ESCI 1444	Natural Disasters	This course is a survey of phenomena known collectively as natural disasters, covered from the geoscientific perspective, with consideration for the impact of such events on human societies. Topics in this course will include volcanoes, hurricanes, tsunamis, earthquakes, and others. Course also includes studies of the underlying processes that create the environment for these events, such as plate tectonics, the oceanic heat budget, and atmospheric circulation. MnTC Goals 3 and 10	3	NG Accuplacer Reading Score 237+
ESCI 1451	Oceanography	This course is an introduction to the science of oceanography through the interdisciplinary areas of biological, chemical, geological, and physical oceanography. Topics include ocean floor, plate tectonics, sea water chemistry, currents, waves, tides, coasts, and marine life. Contemporary environmental topics are also part of this course and may include marine contamination, marine noise, overfishing, alternative energy, global climate change, tsunami and storms, coastal issues, and marine resources. MnTC Goals 3 and 10	3	NG Accuplacer Reading Score 237+
ESCI 1452	Oceanography Lab	This optional laboratory course is an introduction to the science of oceanography through hands-on experiences in the interdisciplinary areas of biological, chemical, geological, and physical oceanography. This course includes a variety of activities supporting the topics discussed in Oceanography lecture. These topics may include the ocean floor, plate tectonics, air-sea interactions, sea water chemistry, currents, waves, tides, coastal processes, and ocean life. Laboratory exercises will also focus on environmental topics which may include pollution, over-fishing and food supply, alternative energy, global warming, El Nino-Southern Oscillation, the North Atlantic Oscillation, tsunami and storms, coastal problems, marine resources, etc. While not required, it is recommended that you complete ESCI 1451 before enrolling in this course. MnTC Goals 3 and 10	1	NG Accuplacer Reading Score 237+
ESCI 1454	Planet Earth	This beginner's course explores Earth's solid, liquid, gas, and living layers; what they are, how they act, and how they interact. In this course you can expect to not only learn about geoscience, but engage with it, by practicing the techniques of working professionals in the field. MnTC Goals 3 and 10	4	NG Accuplacer Reading Score 237+
ESCI 1455	Honors Planet Earth	This course is a survey of the scientific underpinnings of contemporary environmental issues on the global, continental, and regional scales. For the geoscience disciplines of geology, meteorology, climatology, and oceanography, it is an introductory course. But is also a course on the practical applications of these sciences for inquiry into the human impact on Earth's concentric spheres. Students enrolled in this honors course will be required to read additional scientific literature, participate in team projects, and complete a capstone project. Activities may include (original) research, inquiry based investigation(s), collaboration, or other project types that the instructor deems worthy of the Honors' designation. At least one extended field trip may be required. MnTC Goals 3 and 10	4	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
ESCI 1460	Exploring the Edge of Space	In this course students will work as a team to plan and successfully conduct a near-space high-altitude balloon flight (HAB). Such flights involve learning Earth surface and atmospheric structure and dynamic processes, hypothesis writing, experimental design and construction, electronics testing and assembly, microcontroller programming, data collection and analysis, and scientific report writing. Successful execution of a near-space HAB flight requires extensive teamwork and collaboration. At least one all-day off campus field excursion is required for this course. Whenever possible students in this class will collaborate with students of other courses, colleges,and K-12 schools. Collaboration in this case may involve presenting technical and science topics to other CLC and to K-12 students, and helping others with experimental design and construction, and interpreting data. MnTC Goal 3	3	NG Accuplacer Reading Score 237+
ESCI 1461	Honors Exploring the Edge of Space	In this course students will work as a team to plan and successfully conduct a near-space high-altitude balloon flight (HAB). Such flights involve learning Earth surface and atmospheric structure and dynamic processes, hypothesis writing, experimental design and construction, electronics testing and assembly, microcontroller programming, data collection and analysis, and scientific report writing. Successful execution of a near-space HAB flight requires extensive teamwork and collaboration. At least one all-day off campus field excursion is required for this course. Whenever possible students in this class will collaborate with students of other courses, colleges,and K-12 schools. Collaboration in this case may involve presenting technical and science topics to other CLC and to K-12 students, and helping others with experimental design and construction, and interpreting data. Students will read primary scientific literature, participate in team projects, and complete a capstone project. Activities may include (original) research, inquiry based investigation(s), collaboration, or other project types that the instructor deems worthy of the Honors' designation. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. MnTC Goal 3	4	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator

ESCI 1480	Flight to Edge of Space: Learning and Experimentation	In this course students will work as a team to plan and successfully conduct a stratospheric balloon flight. Activities include hypothesis writing; experimental design, construction, and execution; data collection and analysis; and scientific report writing and presentation. Successful execution of a stratospheric balloon flight requires extensive teamwork and collaboration. Content topics in this course include Earth atmospheric structure and dynamic processes, and contemporary topics in atmospheric pollution, and societal issues involving the atmosphere. A companion physics course is required which will involve topics in atmospheric physics and geophysics, as well as electronics assembly and testing, and acquiring a working proficiency with navigational systems. The balloon flight will involve at least one all-day field excursion, and is required for this course. This is one of two courses in a learning community. The other is PHYS 1480 Flight to the Edge of Space: Electronic, mechanical, and navigational systems. Both courses must be taken concurrently. Expect extensive collaboration, communication, and transfer across the two courses. MnTC Goal 3	2	NG Accuplacer Reading Score 237+
ESCI 2581	Topics in Earth Science	This course will examine selected topics of interest in Earth Science. On demand.	1-3	none
ECON 1450	The American Economy	This course is an introduction to and a descriptive survey of the modern American Economy. Concentration is on the major forces affecting the economy, with special attention given to the role and responsibility of the federal government. MnTC Goal 5	3	NG Accuplacer Reading Score 237+
ECON 1451	Honors American Economy	This course is an introduction to and a descriptive survey of the modern American Economy. Concentration is on the major forces affecting the world economy, with special attention given to the role and responsibility of the United States government in national and world economic affairs. The course will require attendance at the 2016 Nobel Conference in St. Peter, MN, and will include multiple topics related to the conference theme, “In Search of Economic Balance.” Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. MnTC Goal 5	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
ECON 1598	Topics in Economics	This course will examine selected topics of interest in Economics. Offered on demand.	1-3	none
ECON 2401	Principles of Economics-Macroeconomics	This course provides the basic principles behind the economic process, nature of the free-enterprise system, money and banking, national income, monetary and fiscal policy, and other macroeconomic concepts. Although not required, it is recommended that students complete ECON 1450 prior to taking this course. MnTC Goal 5	3	NG Accuplacer Reading Score 237+
ECON 2402	Principles of Economics-Microeconomics	This course studies the functioning of the market in the free-enterprise economy and the various factors that affect market conditions and market structures. Included in the study are the price system, consumer behavior, business firm behavior, resource markets, income distribution, and other microeconomic concepts. MnTC Goal 5	3	NG Accuplacer Reading Score 237+
ENVR 1120	Indigenous Environmental Knowledge	Studying indigenous peoples’ way of life can give us a key to how to insure the future survival of all people on this planet. Modern Society is beginning to realize the value of what is called traditional or indigenous environmental knowledge. This knowledge is the way in which indigenous people relate to their environments. This knowledge is founded on spiritual-cultural instruction from ancient times and on generations of careful observation within an ecosystem of continuous residence. This course will help the student understand indigenous societies living in a sustainable manner.	3	none
ENVR 1400	Introduction to Environmental Studies	This course involves developing an understanding of the complexities of our environment. From the Galaxies our Universe and forces that hold it together to the various systems and process that are part of our planet and an understanding of how everything is tied together. This course will bring us a kaleidoscope of knowledge from the videos of NOVA on the Elegant Universe, to information from our online text - the Habitable Planet on environmental relationships of Atmosphere, Oceans and Ecosystems. Along with this are readings and discussions from Classics in Environmental Studies by Nelissen, Straaten and Klinkers. MnTC Goals 5 and 10	3	NG Accuplacer Reading Score 237+
ETEC 1120	Immersive Worlds, Second Lives and Avatars	This course introduces students to immersive three-dimensional virtual environments. In this introductory course, we will explore Wonderland, Second Life, and massive multi-user gaming worlds. Students will learn how to enter the worlds, travel from place to place, communicate, host a meeting, and in some cases, create objects. Individuals registering must be 18 years or older. Students must have computers that meet these specifications listed at http://secondlife.com/support/sysreqs.php, or be able to work at Central Lakes College on designated computers.	2	must be 18 years or older
ENGR 1500	Introduction to Engineering	History of engineering achievements, social impact of engineering, critical thinking and engineering problem solving; engineering careers and work opportunities, professional responsibilities and ethics. Introductions to the use of MS Word, Power Point, Excel and Mathematica in engineering.	2	none
ENGR 1510	Introduction to Engineering Design	This course introduces the student to the design processes in engineering. The student will develop problem solving skills through project management - planning, organizing, and designing a project within budget and time. The projects involve working in groups; they require effective teamwork development - professional organization, effective communication, standard documentation, time management, and decision making skills that are essential in working as a team.	2	none
ENGR 1560	Digital Logic Design	This is a course on number systems, Boolean algebra, logic gates, combinational and sequential circuits, MSI based design, programmable logic and memory devices, VHDL synthesis, computer aided analysis, and simulation. The laboratory component reinforces concepts with hands-on design projects.	3	MATH 1470 or concurrent enrollment
ENGR 2547	Statics	This course involves rigid-body mechanics and provides a necessary background for the study of the mechanics of deformable bodies. Statics deals with structures in equilibrium such as structures at rest or moving at a constant velocity. It develops the equations of equilibrium and applies them to the analysis of simple engineering structures and machines. Specific subjects include equilibrium of trusses, frames and machines, the analysis of friction forces and topics relating to the center of gravity and mass moments of inertia.	3	MATH 1478 and PHYS 1411
ENGR 2548	Dynamics	This course is the study of kinematics and kinetics as applied to the analysis of simple engineering structures and machines. Kinematics is the study of motion of particles and extended rigid bodies without reference to the causes of the motion. Kinetics is the study of the relationship between motion and the forces that cause the motion. Specific topics include motions in 1-, 2-, and 3-dimensions, relative motion of connected bodies, work, energy, momentum, and introduction to vibrations.	3	ENGR 1412, ENGR 2547, MATH 1478

ENGR 2549	Mechanics of Materials	This course presents the study of mechanics of deformable bodies. It deals with the analysis of the stresses and of the corresponding deformation in various structural members. Axial, torsional, pure bending and transverse loadings will be considered. Analytical and computer solutions to problems will be employed. The course will also include laboratory determinations of stress-strain relationships. Multivariable calculus and Mathematica will be used to determine moments of inertia.	3	ENGR 2547
ENGR 2569	Circuit Analysis I	This course covers the linear circuits and their responses under some input and output conditions. The Ohm's Law, Kirchhoff's Current Law, and Kirchhoff's Voltage Law are used for analysis. The basic elements and networks containing dependent and independent sources are analyzed using standard circuit analysis techniques including the nodal analysis, mesh analysis, Thévenin's Theorem, Norton's Theorem, and the principle of superposition. Applications of operational amplifier are analyzed. The behavior of the inductor and capacitor are investigated as energy storage devices. Methods of analysis for first and second order circuits are investigated. Circuit analysis methods, including analytical and computer based solutions are employed. A lab supplements the analytical course material.	4	ENGR 1412 or MATH 1478
ENGR 2570	Circuit Analysis II	This course covers the following topics: sinusoidal sources, phasors, impedance and admittance, sinusoidal steady-state analysis, average power, RMS values, apparent power, complex power, mutual inductance, transformers, complex frequency, Laplace transforms, circuit analysis in the s-domain, poles, zeros and diagrams, filters, and two-port networks. The student is given simulated laboratory experience through the use of computer-aided analysis. The laboratory component reinforces concepts with hands-on design projects.	3	ENGR 2569
ENGR 2580	Topics in Engineering	This course will examine selected topics of interest in Engineering. Offered on demand.	1-3	instructor's consent
ENGL 1410	Composition I	Composition I is a writing-intensive course that prepares students for writing effectively in a variety of academic and professional situations. Students will learn and employ a variety of rhetorical strategies, including (but not limited to) description, narration, exposition, exemplification, classification, process analysis, comparison/contrast, and definition through formal papers written in edited Standard English, which will result in a total of at least 5,000 words. In addition, students may also be asked to write journals, a resume and letter of application, and to review grammar. Students will regularly engage in all stages of the writing process; learn how to successfully participate in an online, academic environment; and hone their ability to identify thesis, audience, tone, unity, coherence, and emphasis in their reading and writing. The course will also include a literature component to present basic terminology and foster critical thinking skills. MnTC Goal 1	4	NG Accuplacer Reading Score 250+
ENGL 1411	Composition II	Composition II focuses on research-based writing and information literacy. Students will learn and employ rhetorical strategies such as analysis (of ideas or human situations into comparable or constituent parts), cause and effect reasoning, inductive/deductive reasoning, and argument/persuasion. Subjects may include reaction, evaluation, and interpretation of literature and/or socio-cultural phenomena. Students will learn the principles of the academic research process such as developing a topic, understanding and applying outside sources, and defining and supporting a critical lens. During that process, students will learn how to locate, access, evaluate, and synthesize traditional and online library resources. Throughout the course, students will demonstrate a command of the writing and revision process and the APA (American Psychological Association) and the MLA (Modern Language Association) formats. Students will demonstrate these skills through formal papers written in edited Standard English, which will result in a total of at least 5,000 words. MnTC Goal 1	4	ENGL 1410 or ENGL 1420
ENGL 1420	Honors Composition I	Honors Composition I is an enriched writing-intensive seminar course that prepares students for writing effectively in a variety of academic and professional situations. In addition to engaging in higher-level reading, students will learn to employ a variety of rhetorical strategies, including (but not limited to) description, narration, exposition, exemplification, classification, process analysis, comparison/contrast, and definition through formal papers written in edited Standard English, which will result in a total of at least 5,000 words. Students may also be asked to keep a journal, write a resume and letter of application, review grammar, and submit an end-of-term portfolio of polished work. Students will regularly engage in all stages of the writing process; learn how to successfully participate in an online, academic environment; and hone their ability to identify thesis, audience, tone, unity, coherence, and emphasis in their reading and writing. The course will also include a literature component to present basic terminology and foster critical thinking skills. MnTC Goal 1 Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways	4	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
ENGL 1421	Honors Composition II	Honors Composition II is a research-based writing-intensive course that teaches students how to write in a professional and public capacity through frequent writing experiences similar to the writing which they are likely to encounter in community or work situations. Through practice, students will master the research process and explore ways to share the results of their research with various audiences. For example, students will learn how to locate, access, evaluate, and synthesize traditional and online library resources and shape the results into a cohesive argument. Throughout the course, students will develop a command of the writing and revision processes and the APA (American Psychological Association) and the MLA (Modern Language Association) formats. Students will learn the foundational elements of argumentation and will develop researching, critical thinking, and collaborative writing strategies as they draft and revise multiple documents for multiple audiences. Students will demonstrate these skills through formal papers written in edited Standard English, which will result in a minimum of 5,000 words. The results of student learning will extend beyond the college classroom, reflecting common forms of civic engagement that exist in diverse and pluralistic societies. The capstone project for the course will include a presentation in public forum. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. MnTC Goals 1 and 9	4	ENGL 1410 or ENGL 1420

ENGL 1422	Practical Writing	Students will learn to structure business correspondence, including memos, letters, executive summaries and e-mails. Longer reports will include proposals, mechanism reports, and multi-step, collaborative reports. Students will learn to represent information for different audiences, such as co-workers, the public and upper-level administration, and they will use media such as power point presentations to enhance their messages. Because writing is often collaborative, the course will emphasize working in groups, treating group members ethically, developing time lines for projects and dividing work within the group. MnTC Goals 1 and 2	3	NG Accuplacer Reading Score 237+
ENGL 1450	Introduction to Humanities	This course is an introductory survey of the genres and themes of the humanities. Readings, lectures, and class discussions will focus on genres such as music, the visual arts, drama, literature, and philosophy. As themes, the ideas of freedom, love, happiness, death, nature, and myth may be explored from a western and non-western point of view. MnTC Goals 6 and 8	3	NG Accuplacer Reading Score 237+
ENGL 1452	Classical Mythology	An introductory course presenting classical mythology as a means of understanding the human condition through general readings, with special emphasis on classical myth's continued presence in modern Western culture. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ENGL 1454	Film Appreciation	This course is an introduction to film as art form, tracking theory—with emphasis on the evolution of directorial and cinematic technique through the context of film history. Critical evaluations and in class discussion will be integral parts of the course. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ENGL 1456	Environmental Literature	This survey course explores a wide range of environmentally-focused themes through fiction, non-fiction, poetry, legislative and judicial actions, technical reports, and film. By studying classic and contemporary works, students will gain an appreciation of environmental literature and a heightened awareness of the interconnectedness of humans and their environment. Students will engage in writing activities throughout the course that allow them to discover and apply theoretical and practical lessons in their own writing. MnTC Goals 6 and 10	3	NG Accuplacer Reading Score 237+
ENGL 1460	Honors Literature: The Great Books	Honors Literature is a seminar course of the great books and literature of non-Western and Western writers and includes canonical, authoritative, and acclaimed texts across the ages such as epics, tragedies, novels, dramatic works for the stage, and poetry. The class will expose students to writers of genius, authors who have dreamed literature in all centuries and across all borders. It will invite students to inhabit verse and prose that represent values, systems of belief, and culture. Students will be called on to become readers, writers, discussants, and wonderers. Though literature is sometimes a mirror that works badly, the ultimate subject of this class is the students themselves, and it is up to them to name and understand the relationship between these extraordinary texts and our human condition. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. MnTC Goal 6	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
ENGL 1463	Introduction to Literature	Introduction to literature is a survey course of great, creative literature, specifically prose, drama, and poetry. In addition to developing personal responses to the selected works in the course, students will become adept at discussing and analyzing literature and will develop fluency in literary concepts (plot, point of view, characterization, setting, symbolism, theme, tone, figurative language, stream-of-consciousness, Realism, et. al.). For students wishing to continue study in poetry, drama, American, or world literatures, this course is a necessary starting point. Students who wish to expand their reading experience, develop a deeper appreciation for creative literature, and learn techniques for literary interpretation will also benefit greatly from this course. MnTC Goals 6 and 7	3	NG Accuplacer Reading Score 237+
ENGL 1468	Poetry	A course designed to develop a deeper understanding and appreciation of poetry through reading, discussion, and critical analysis of selected poets ranging from Shakespeare to the present. A Minnesota poet may visit to read his/her poetry following a study and discussion of the poet's writings. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ENGL 1470	Introduction to Science Fiction and Fantasy Literature	This course is a study of selected works of science fiction and fantasy literature. Focus will be on critical reading and the analysis of the literature. In addition, this course will address issues of historical and contemporary importance such as environmentalism, politics, religion, ethics, technology, individuality and conformity, and economics. By examining these issues through the lens of science fiction and fantasy literature, students will gain an alternative perspective on world history and how these issues affect their individual lives and the culture in which they live. MnTC Goals 6 and 9	3	NG Accuplacer Reading Score 237+
ENGL 1477	Authors in Focus	ENGL 1477, 1478 and 1479 are one-credit mini-courses on selected writers and their works. Offered on demand. MnTC Goal 6	1-3	NG Accuplacer Reading Score 237+
ENGL 1478	Authors in Focus	ENGL 1477, 1478 and 1479 are one-credit mini-courses on selected writers and their works. Offered on demand. MnTC Goal 6	1-3	NG Accuplacer Reading Score 237+
ENGL 1501	Writing Fundamentals for Healthcare Professionals	This course offers the student instruction leading to writing improvement through a better understanding of sentence-level grammar. The course emphasizes language structure, conventions, and the application of these to writing sentences, paragraphs, and program-specific documents. The primary goal of the course is to transform students who are competent readers and writers into subject matter experts in language mechanics and in so doing prepare students for success in the professional, increasingly technological, and text-focused workplace. In addition, the course offers students the opportunity to review the writing process and practice the most common editing and proofing techniques in order to generate documents that are free of errors, concise, and reflective of their intended meaning.	1	NG Accuplacer Reading Score 237+
ENGL 1510	English for Academic Purposes	This course focuses on intermediate integrated English language skills (reading, writing, listening, and speaking) for academic purposes through culture using authentic language situations such as reading authentic academic language texts, writing authentic academic papers, listening to authentic lectures and participating in discussions, and asking questions. For non-native English speakers.	3	none
ENGL 1520	Language Fundamentals	This course offers the student instruction leading to writing improvement through a better understanding of sentence-level grammar. The course emphasizes language structure, conventions, and the application of these to writing sentences, paragraphs, and program-specific documents. The primary goal of the course is to ensure students can communicate effectively and thus prepare them for success in our increasingly technological, and text-focused workplace. The course will also review the editing process and explore the relationship between language structure and its meaning.	1	none

ENGL 1522	Writing Fundamentals for Diesel & Heavy Equipment Technicians	This course offers students the opportunity to study the writing process and practice in preparation for reading, understanding, communicating, and generating the most common writing documents. The course will utilize the writing process focusing on audience, purpose, and method in order to generate documents such as letters, proposals, email, memoranda, reviews, service logs, formal and informal reports, audits, and other intra- and inter-office communications. The course will also explore communicating with partners in alternative formats such as video conferencing, webinars, blogs, and ITV.	1	none
ENGL 1580	Topics in Humanities	This course offers the opportunity for focused study in one or more areas in the humanities.	1-3	none
ENGL 1596	Writing II	This course offers the student instruction leading to writing improvement. Emphasis on sentence structure and usage, appropriate conventions, and application of these to writing sentences, paragraphs, and short essays will prepare students to succeed in college level writing courses (Composition I).	3	successful completion of READ 0591 with grade of C or better
ENGL 2450	World Literature	This course is a study of selected works from Western and non-Western literary traditions. Focus will be on critical reading and discussion, literary elements, and analysis, interpretation, and evaluation of literature from different philosophies and cultures. MnTC Goals 2 and 8	3	NG Accuplacer Reading Score 237+
ENGL 2451	Women in Literature	Although many survey courses now include works by women authors, that has not always been the case. We begin this course by reading Virginia Woolf's text A Room of One's Own, which provides a touchstone for our understanding as to why so many women writers are missing, or have been missing, from those survey courses. We will investigate the importance of tradition and history for women writers as we consider how women have been characterized in literature and as we read literature written by women. Genres we will read include a novel, poetry, short stories, expository writing and we will view several films. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ENGL 2455	Native Indian Literature	This course is a study of selected works of Native American Literature. Students will be required to discuss, read, and write about Native American in a variety of genres that may include the following: fiction, memoir, nonfiction, poetry, and prose. By reading and studying the course materials, students will gain an appreciation and understanding of Indigenous self-representation in its historical, cultural, and political contexts. MnTC Goals 6 and 7	3	NG Accuplacer Reading Score 237+
ENGL 2460	Survey of American Literature	This survey course dives into the historical and literary movements that shaped North American literature. From the early writings to contemporary, diverse voices that ask us "What does it mean to be an American?", the experience transforms the reader into a literary historian. Genres include (but are not limited to) short story, poetry, non-fiction (oral narratives, historical writing, essays, letters, autobiographies). The course explores the following literary movements: Native American oral and written traditions, Puritan literature, American Romantic movement, Realism, Naturalism, Regionalism, Modernism, and Post-Modernism. MnTC Goals 6 and 7	3	NG Accuplacer Reading Score 237+
ENGL 2470	Creative Nonfiction	This course is an introduction to creative nonfiction, a fast-growing literary genre dedicated to the art of telling true stories vividly and memorably. In addition to examining various models of creative nonfiction, students will be immersed in the process of imaginative writing as they learn about voice, scene, dialogue, point of view, theme, research, accuracy, imagery, and other elements commonly used in the genre. Memoir, humor writing, personal narrative, literary journalism, nature writing, and travel writing are different forms of writing that students will explore in this course. Assignments and writing prompts will lead to the creation and revision of drafts, giving students an opportunity to end the course with a portfolio of polished material. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
ENGL 2483	Creative Writing	In workshop format this course provides the study and practice of writing. From semester to semester, the course may emphasize fiction, nonfiction, poetry, or some combination of them. Students should consult instructor for further information. MnTC Goal 6	3	NG Accuplacer Reading Score 250+
FBMA 2200	Current Issues in Farm Business Management	This course is designed to assist students to further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in reducing potential risk, performing strategic planning, and revising business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs.	1-5	none
FBMA 2201	Directed Studies - Current Issues in Farm Business Management	This course is designed to assist students to further develop their skills in business management. It provides an opportunity for students to maintain the financial and enterprise database, to generate financial statements, business analyses, and financial projections required for risk management planning, strategic management planning, and farm business plan development. This data also provides the basis for commodity market planning and tax management planning. Emphasis is placed on the development and maintenance of farm business data, reports, and plans. This data also provides development and maintenance of farm business data, reports, and plans.	1-5	FBMA 2200
FBMA 2210	Current Issues in Farm Business Management	This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time. Students are encouraged to enroll in this course in sequence with FBMA 2220 - Directed Studies - Current Issues in Farm Business Management.)	1-5	none
FBMA 2211	Current Issues in Farm Business Management	This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time. Students are encouraged to enroll in this course in sequence with FBMA 2221 - Directed Studies - Current Issues in Farm Business Management.)	1-5	none
FBMA 2212	Current Issues in Farm Business Management	This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time. Students are encouraged to enroll in this course in sequence with FBMA 2222 - Directed Studies - Current Issues in Farm Business Management.)	1-5	none

FBMA 2213	Current Issues in Farm Business Management	This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time. Students are encouraged to enroll in this course in sequence with FBMA 2223 - Directed Studies - Current Issues in Farm Business Management.)	1-5	none
FBMA 2214	Current Issues in Farm Business Management	This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time. Students are encouraged to enroll in this course in sequence with FBMA 2224 - Directed Studies - Current Issues in Farm Business Management.)	1-5	none
FBMA 2220	Directed Studies - Current Issues in Farm Business Management	This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to maintain the financial and enterprise data base, to generate financial statements, business analyses, and financial projections required for risk management planning, strategic management planning, and farm business plan development. This data also provides the basis for commodity market planning and tax management planning. Emphasis is placed on the development and maintenance of farm business data, reports, and plans. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time. Students are encouraged to enroll in this course in sequence with FBMA 2210 - Current Issues in Farm Business Management.)	1-5	none
FBMA 2221	Directed Studies - Current Issues in Farm Business Management	This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to maintain the financial and enterprise data base, to generate financial statements, business analyses, and financial projections required for risk management planning, strategic management planning, and farm business plan development. This data also provides the basis for commodity market planning and tax management planning. Emphasis is placed on the development and maintenance of farm business data, reports, and plans. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time. Students are encouraged to enroll in this course in sequence with FBMA 2211 - Current Issues in Farm Business Management.)	1-5	none
FBMA 2222	Directed Studies - Current Issues in Farm Business Management	This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to maintain the financial and enterprise data base, to generate financial statements, business analyses, and financial projections required for risk management planning, strategic management planning, and farm business plan development. This data also provides the basis for commodity market planning and tax management planning. Emphasis is placed on the development and maintenance of farm business data, reports, and plans. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time. Students are encouraged to enroll in this course in sequence with FBMA 2212 - Current Issues in Farm Business Management.)	1-5	none
FBMA 2223	Directed Studies - Current Issues in Farm Business Management	This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to maintain the financial and enterprise data base, to generate financial statements, business analyses, and financial projections required for risk management planning, strategic management planning, and farm business plan development. This data also provides the basis for commodity market planning and tax management planning. Emphasis is placed on the development and maintenance of farm business data, reports, and plans. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time. Students are encouraged to enroll in this course in sequence with FBMA 2213 - Current Issues in Farm Business Management.)	1-5	none
FBMA 2224	Directed Studies - Current Issues in Farm Business Management	This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to maintain the financial and enterprise data base, to generate financial statements, business analyses, and financial projections required for risk management planning, strategic management planning and farm business plan development. This data also provides the basis for commodity market planning and tax management planning. Emphasis is placed on the development and maintenance of farm business data, reports, and plans. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time. Students are encouraged to enroll in this course in sequence with FBMA 2214 - Current Issues in Farm Business Management.)	1-5	none
FBMA 2930	Fund of Financial Management Relates Risk Management	This course is intended to have the student enhance decision-making skills relating to business risk management. This course will have the student further investigate tools available to business that would be effective in reducing potential risk for the operation. Emphasis will be placed on having the student research risk management options that will meet their business, family, and personal needs.	3	none
FBMA 2931	Applied Financial Management Relates Risk Management	This course is intended to have the student apply concepts in financial management that can be used in the development of a business risk management program. The student is to implement risk management tools that will assist in meeting business, family and personal needs.	3	none
FBMA 2932	Fund Financial Mgmt/Strategic Plan Emphasis	This course will enable students to identify the elements necessary to evaluate and create a strategic plan for the business, determining uses for the plan today and tomorrow and developing a plan to locate those team members necessary for strategic plan creation.	3	none
FBMA 2933	Applied Financial Management/Strategic Plan Emp	This course will provide practical application of strategic planning skills. Application skills will be practiced upon and applied to the student's business and business plan.	3	none
FBMA 2934	Fundamentals of Financial Mgmt/Bus Plan Emphasis	This course will provide practical application of the business plan. Application skills will be practiced and applied as the student's business plan is prepared and implemented.	3	none
FBMA 2935	Applied Financial Mgmt/Bus Plan Emphasis	This course will provide the necessary instruction to put together and implement a business plan for the farm business.	3	none
FBMA 2936	Directed Study - Decision Making	This course will examine the individual, family and farm business decision-making process with emphasis on upgrading and improving decision making resources, tools and skills. Particularly, this course will lead the student to critically analyze information, applications, and implications of decision making as it relates to their own situation. Students will evaluate his/her own decision making process.	2	none

FBMA 2937	Directed Studies - Communications	This course will assist the student in further acquiring and developing a higher level of communication skills. Students will review and evaluate various communication methods and techniques in dealing with and relating to individuals in both the public and private sector. Students will use this information in formulating an effective communication method and style. Additional course content may include student initiated or group activities.	2	none
FBMA 2938	Directed Studies - Modern Agricultural Tech	This course will deal with experiencing modern agricultural technological changes and determining if they fit into an individual's farming operation.	2	none
FBMA 2939	Directed Studies - Enterprise Alternatives	This course will assist those students wanting to make changes in their farm business through enterprise expansion, addition or enhancement. The course will develop a set of procedures for exploring and evaluating alternative choices.	2	none
FBMA 2940	Directed Studies - Farm Business Family Transition	This course provides the opportunity for the student to study the many aspects of farm business and/or family transition which occur in the typical farm business.	2	none
FBMA 2941	Directed Studies - Personal Management	This course will organize skills for effective management of farm employees and agribusiness personnel through development of handbooks, compensation/incentive packages, individual expectations/ evaluations, and team meetings.	2	none
FBMT 1112	Foundations for Farm Business Management	This course is an overview of the Farm Business Management Program. The student will be introduced to goal setting, self and business assessment, record keeping, and business projections to provide the foundation for personal and business management progress. Current issues affecting business management are an integral part of the course.	4	none
FBMT 1121	Preparation for Farm Business Analysis	This course will take the student through a step-by-step procedure to close out a complete year of farm business records. This course will emphasize tax planning, completing inputs to livestock and crop enterprises, and emphasizing cash and liabilities accuracy. A completed business and enterprise analysis will be the course focus.	4	none
FBMT 1122	Implementing the System Management Plan	This course continues to build on the foundation of farm business management. The student will complete a farm business financial and enterprise analysis. Sound financial record keeping is an integral component.	4	none
FBMT 1131	Managing and Modifying Farm System Data	This course will help students refine their farm business data system and assist them in applying year end procedures for farm business analysis. Students improve accuracy in the following: farm enterprise analysis, tax planning and filing, and cash and liabilities checks.	4	none
FBMT 1132	Interpreting and Using Farm System Data	This course provides an opportunity for the student to view the farm business and its various components through a number of vehicles such as balance sheets, farm personal and managerial inventories, enterprise reports and historical data.	4	none
FBMT 1170	Intro to Farm Commodity Marketing	This course is designed to introduce students to the various methods and tools to market farm commodities.	3	none
FBMT 1171	Directed Study - Intro to Farm Commodity Marketing	This course provides the student with the opportunity to use the various marketing methods and tools.	1	FBMT 1170
FBMT 1172	Directed Study - Intro to Farm Commodity Marketing	This course provides the student with the opportunity to use the various marketing methods and tools.	1	FBMT 1170
FBMT 1173	Directed Study - Intro to Farm Commodity Marketing	This course provides the student with the opportunity to use the various marketing methods and tools.	2	FBMT 1170
FBMT 1180	Applying Commodity Marketing Fundamentals	This course is designed to teach students to apply the various methods and tools to market farm commodities.	3	none
FBMT 1181	Directed Study - Applying Commodity Marketing Fundamentals	This course provides students with the opportunity to apply marketing methods and tools to their individual farming operation.	1	FBMT 1180
FBMT 1182	Directed Study - Applying Commodity Marketing Fundamentals	This course provides students with the opportunity to apply marketing methods and tools to their individual farming operation.	1	FBMT 1180
FBMT 1183	Directed Study - Applying Commodity Marketing Fundamentals	This course provides students with the opportunity to apply marketing methods and tools to their individual farming operation.	2	FBMT 1180
FBMT 1190	Evaluating Farm Commodity Marketing Tools	This course is designed to teach students to evaluate the various farm marketing tools and to select the tool appropriate to the present marketing situation.	3	none
FBMT 1191	Directed Study - Evaluating Farm Commodity Marketing Tools	This course will allow the student to implement and use the marketing tools appropriate to the current marketing situation.	1	FBMT 1190
FBMT 1192	Directed Study - Evaluating Farm Commodity Marketing Tools	This course will allow the student to implement and use the marketing tools appropriate to the current marketing situation.	1	FBMT 1190
FBMT 1193	Directed Study - Evaluating Farm Commodity Marketing Tools	This course will allow the student to implement and use the marketing tools appropriate to the current marketing situation.	2	FBMT 1190
FBMT 1211	Introduction to Farm Business Management	This course introduces basic farm business management concepts. Students will study the farm management planning cycle and develop an understanding of its relationship to: family and farm business goal setting, cash and enterprise accounting principles, and tax planning.	4	none
FBMT 1213	Managing A Farm System in A Global Economy	This course assists the students in achieving awareness of development in agricultural policies and practices throughout the world and assessing the impact of these policies and practices on the profitability and viability of their farm business.	2	none
FBMT 1223	Using System Analysis in Total Farm Planning	This course enables study of concepts related to farm business analysis, and exploration of possible implications and/or solutions to these concepts. A systematic method to assess farm business strengths and weaknesses based on the analysis will be used.	2	none
FBMT 1233	Application of Productive Enterprise Information	This course describes procedures for applying enterprise information provided by computerized analysis of farm business accounts.	2	none
FBMT 1253	Exploration of Value Added Enterprises	This course will provide the student with the basic understanding of what value added enterprises are and how they can affect the farm business. The student will gain the knowledge of various value added enterprises and their relation to a farm management cycle.	2	none
FBMT 1254	Incorporating Value Added Enterprises	This course will provide the student with the knowledge of the farm management cycle with the incorporation of a value added enterprise and the outcomes of the financial and business analysis of the farm.	2	none
FBMT 1255	Management of Value Added Enterprises	This course will provide the student with an in-depth knowledge of management aspects of value added enterprises.	2	none
FBMT 1260	Environmental Issues on Today's Farm	This course will offer the student insights and responsibilities of being a steward of the land. With new environmental policies that are law, the student will learn the necessary requirements to meet the current environmental policies.	3	none
FBMT 2141	Interpreting and Evaluating Financial Data	This course continues to expand on preparation and evaluation of the farm business analysis. This course provides continued guidance and perfection of business record close-out procedures, tax implications of management decisions, and continues to monitor farm business and family goals.	4	none
FBMT 2142	Interpreting Trends in Business Planning	This course examines whole farm, enterprise, balance sheet, and inventory trends. Current analysis data is compared to historical data in making future farm business planning decisions. Financial ratios are used to indicate the farm financial structure.	4	none
FBMT 2151	Strategies in Farm System Data Management	This course will help the student focus on long-term strategies necessary to maintain and enhance the farm business and personal future financial goals. The student will complete the year by developing an accurate, usable business analysis.	4	none

FBMT 2152	Integrating System Information for Financial Planning	This course uses farm system information to develop a farm financial plan. Interpretation and analysis of the farm system data will enhance the reliability of the farm plan. The comprehensive farm plan will integrate historical trends, farm and personal goals, financial and enterprise performance of the farm business.	4	none
FBMT 2161	Examination of the Context of Farm System Management	This course is designed to assist students in preparation of improved farm system management procedures. Students in this course will evaluate several years of an improved farm system analysis.	4	none
FBMT 2162	Refining Farm System Management	This course is the culmination of activities designed to enable the student to develop and implement a comprehensive farm business strategic plan. The student will use the components of the Farm Business Management Program to develop and support a farm business strategic plan.	4	none
FBMT 2170	Monitoring Farm Commodity Marketing Plans	The course is designed to teach students to monitor and refine current farm commodity marketing plans. Emphasis will be placed on current market conditions and pricing opportunities.	3	none
FBMT 2171	Directed Study - Monitoring Farm Commodity Marketing Plans	This course will provide activities directed toward monitoring and refining the student's farm commodity marketing plan.	1	FBMT 2170
FBMT 2172	Directed Study - Monitoring Farm Commodity Marketing Plans	This course will provide activities directed toward monitoring and refining the student's farm commodity marketing plan.	1	FBMT 2170
FBMT 2173	Directed Study - Monitoring Farm Commodity Marketing Plans	This course will provide activities directed toward monitoring and refining the student's farm commodity marketing plan.	2	FBMT 2170
FBMT 2180	Strategies in Farm Commodity Marketing	This course is designed to help students plan marketing strategies necessary to achieve farm business and personal goals.	3	none
FBMT 2181	Directed Study - Strategies in Farm Commodity Marketing	This course will help students identify and implement marketing strategies necessary to achieve their farm business and personal goals.	1	FBMT 2180
FBMT 2182	Directed Study - Strategies in Farm Commodity Marketing	This course will help students identify and implement marketing strategies necessary to achieve their farm business and personal goals.	1	FBMT 2180
FBMT 2183	Directed Study - Strategies in farm commodity Marketing	This course will help students identify and implement marketing strategies necessary to achieve their farm business and personal goals.	2	FBMT 2180
FBMT 2200	Special Topics - General Farm Management	These courses cover special topics of interest in general farm management.	1	none
FBMT 2201	Special Topics - General Farm Management	These courses cover special topics of interest in general farm management.	1	none
FBMT 2202	Special Topics - General Farm Management	These courses cover special topics of interest in general farm management.	1	none
FBMT 2203	Special Topics - General Farm Management	These courses cover special topics of interest in general farm management.	1	none
FBMT 2204	Special Topics - General Farm Management	These courses cover special topics of interest in general farm management.	1	none
FBMT 2205	Special Topics - General Farm Management	These courses cover special topics of interest in general farm management.	2	none
FBMT 2206	Special Topics - General Farm Management	These courses cover special topics of interest in general farm management.	2	none
FBMT 2207	Special Topics - General Farm Management	These courses cover special topics of interest in general farm management.	2	none
FBMT 2208	Special Topics - General Farm Management	These courses cover special topics of interest in general farm management.	2	none
FBMT 2209	Special Topics - General Farm Management	These courses cover special topics of interest in general farm management.	2	none
FBMT 2210	Special Topics - Marketing	These courses cover special topics of interest in marketing management.	1	none
FBMT 2211	Special Topics - Marketing	These courses cover special topics of interest in marketing management.	1	none
FBMT 2212	Special Topics - Marketing	These courses cover special topics of interest in marketing management.	1	none
FBMT 2213	Special Topics - Marketing	These courses cover special topics of interest in marketing management.	1	none
FBMT 2214	Special Topics - Marketing	These courses cover special topics of interest in marketing management.	1	none
FBMT 2215	Special Topics - Marketing	These courses cover special topics of interest in marketing management.	2	none
FBMT 2216	Special Topics - Marketing	These courses cover special topics of interest in marketing management.	2	none
FBMT 2217	Special Topics - Marketing	These courses cover special topics of interest in marketing management.	2	none
FBMT 2218	Special Topics - Marketing	These courses cover special topics of interest in marketing management.	2	none
FBMT 2219	Special Topics - Marketing	These courses cover special topics of interest in marketing management.	2	none
FBMT 2220	Special Topics - Crops	These courses cover special topics of interest in crop management.	1	none
FBMT 2221	Special Topics - Crops	These courses cover special topics of interest in crop management.	1	none
FBMT 2222	Special Topics - Crops	These courses cover special topics of interest in crop management.	1	none
FBMT 2223	Special Topics - Crops	These courses cover special topics of interest in crop management.	1	none
FBMT 2224	Special Topics - Crops	These courses cover special topics of interest in crop management.	1	none
FBMT 2225	Special topics - Crops	These courses cover special topics of interest in crop management.	2	none
FBMT 2226	Special Topics - Crops	These courses cover special topics of interest in crop management.	2	none
FBMT 2227	Special Topics - Crops	These courses cover special topics of interest in crop management.	2	none
FBMT 2228	Special Topics - Crops	These courses cover special topics of interest in crop management.	2	none
FBMT 2229	Special Topics - Crops	These courses cover special topics of interest in crop management. This course focuses on the analysis of special topics in oilseed or biofuel crop management, the economics related to cost of production, and the potential for processing the oilseed crop on the farm. On-farm processing of energy crops will result in both a biodiesel supply and a by-product that has been approved for livestock feed in some states. This course will provide basic principles to assist in researching new biofuel crop opportunities, incorporating the energy crop into a normal rotation, and basic economics of production and processing on the farm.	2	none
FBMT 2230	Special Topics - Livestock	These courses cover special topics of interest in livestock management.	1	none
FBMT 2231	Special Topics - Livestock	These courses cover special topics of interest in livestock management.	1	none
FBMT 2232	Special Topics - Livestock	These courses cover special topics of interest in livestock management.	1	none
FBMT 2233	Special Topics - Livestock	These courses cover special topics of interest in livestock management.	1	none
FBMT 2234	Special Topics - Livestock	These courses cover special topics of interest in livestock management.	1	none
FBMT 2235	Special Topics - Livestock	These courses cover special topics of interest in livestock management.	2	none
FBMT 2236	Special Topics - Livestock	These courses cover special topics of interest in livestock management.	2	none
FBMT 2237	Special Topics - Livestock	These courses cover special topics of interest in livestock management.	2	none
FBMT 2238	Special Topics - Livestock	These courses cover special topics of interest in livestock management.	2	none
FBMT 2239	Special Topics - Livestock	These courses cover special topics of interest in livestock management.	2	none
FBMT 2243	Using Financial Instruments in Farm System Management	This course integrates the application of various financial instruments used in acquiring capital for use in the business and investigates the way in which both earnings and financial progress can be measured.	2	none
FBMT 2253	System Plans and Projections	This course enables the combination of concepts for preparing farm system plans and projections, and the interaction of possible implications and/or solutions of these concepts.	2	none
FBMT 2263	Evaluating Farm System Programs	This course develops an awareness of individuals and agencies, both public and private, which have expertise available to assist the farm operator to solve farm systems problems. It enables study and application of farm business evaluation concepts, and exploration of possible implications. Exact subject matter and time spent per topic will vary depending on student need, location, and time.	2	none

FBMT 2300	Computer Applications in Farm Management	This course is intended to have the student enhance their decision-making skills relating to business risk management. This course will have the student further investigate tools available to their business that would be effective in reducing potential risk for their operation. Emphasis will be placed on having the student research risk management options that will meet their business, family, and personal needs.	2	none
GEOG 1400	Physical Geography	In this course students will examine the earth as a set of subsystems working together to sustain life. Included are studies of the earth as a planet, weather patterns, climates and the resulting distribution of vegetation and soils, as well as plate tectonics, landforms, weathering, and glaciers. MnTC Goals 5 and 10	3	NG Accuplacer Reading Score 237+
GEOG 1410	Maps and Places	Basic geographic literacy is essential for the modern world citizen. We study the world's regions, countries, capitals, mountains and rivers so we know where places are. We also study and make many types of maps to see the ways they can be used, the kinds of information they can convey and how to create the best maps for given purposes. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 237+
GEOG 1421	World Regional Geography	World Geography is the study of the world's unique regions. Explore Europe, Russia and neighboring countries, Africa, Asia and Latin America through their natural landscapes and resources, cultures, economies and levels of development and their geopolitical importance. Globalization and the global importance of and connections between world regions are emphasized. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 237+
GEOG 1430	Introduction to Geographic Information Systems	This course introduces the fundamentals and basic concepts of Geographic Information Systems (GIS) including basic cartographic principles, map projections and map scales coordinate systems, spatial (geographic) data structure, data sources, geo-referencing, metadata, global positioning system (GPS), and some remote sensing techniques using GIS tools, vendors, software, applications, and resources. MnTC Goals 2 and 5	3	NG Accuplacer Reading Score 237+
GEOG 1459	Cultural Geography	This course examines cultural phenomena as they relate to the world's peoples and places. Cultural Geography studies world population and immigration, folk and popular cultures, the world's great religions, agriculture, political space, economic development and urban and industrial patterns. Connecting these phenomena to the landscapes they create is one of the key features of cultural geography. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 237+
GEOG 1460	Honors Cultural Geography	Cultural geography is the study of cultural phenomena and institutions and their interactions in space. The course will examine human population patterns and migration, religion, agriculture, politics, economic development and urban patterns. This honors course will feature an increased emphasis on the theoretical basis for cultural geography. This will be accomplished in part through the recognition of a variety of cultural groups and the unique landscapes they create. We will examine the ways in which those landscapes reflect and reinforce cultural identity. Students enrolled in this honors course will be required to read additional (topical) literature, participate in team projects, and complete a capstone project. Activities may include (original) research, inquiry based investigation(s), collaboration, or other project types that the instructor deems worthy of the Honors' designation. At least one extended field trip may be required. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
GEOG 1598	Topics in Geography	This course will examine selected topics of interest in Geography. On demand.	1-2	none
GEOG 1599	Topics in Geography	This course will examine selected topics of interest in Geography. On demand.	1-2	none
GERM 1401	Beginning German I	This course is an introduction to the German language, contemporary life, and culture. No previous foreign language study is required. All courses are sequential. MnTC Goal 8	4	Accuplacer Next Generation Reading Score 228+
GERM 1402	Beginning German II	This course is a continuation of the listening, speaking, reading and writing competencies developed in German 1401. Students further explore cultural differences helping them develop a deeper understanding of the world and a greater cultural perspective. MnTC Goal 8	4	Accuplacer Next Generation Reading Score 228+
GERM 2401	Intermediate German I	This course builds on the skills acquired in the beginning German sequence. It focuses on a more in-depth use of grammar, conversation, vocabulary development, pronunciation, and composition. Course content reflects the needs of college-age students or professionals living, working, or traveling abroad. Readings of various types are included from newspapers, magazines, literary works, and other cultural sources. Listening, speaking, reading, and writing are all emphasized. All courses are sequential. Course is offered on demand. MnTC Goals 6 and 8	4	Accuplacer Next Generation Reading Score 228+
GERM 2402	Intermediate German II	This course is a continuation of GERM 2401. Students continue the development and strengthening of the four communication skills listening, speaking, reading, and writing. Cultural and literary materials will develop an appreciation for the arts, history, culture, and literature of German speaking peoples and create an awareness of cultural, social, and linguistic differences and similarities. MnTC Goals 6 and 8	4	Accuplacer Next Generation Reading Score 228+
GLST 1401	Introduction to Global Studies	This course introduces students to the basic concepts, trends, perspectives and interconnections of global society. Through readings, discussions, videos, webcasts and other activities, students examine the interdependence of people around the world and global issues that affect these relationships. It will provide an overview of the history and theoretical approaches that have created a global society through topics such as global politics, human rights, the natural environment, population, disease, gender, information technology, war and peace. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 250+
GLST 1421	Honors Global Studies: Nobel Conference Experience	This course can be part of the Honors Program experience for students looking to explore research and engage their communities, leveraging the skills, goals, and mission of the CLC Honors program. Students will experience, discuss, define, and develop informed world views on global conversations and transpose them to their local communities as they seek to resolve and/or address local challenges. Attending the Nobel Conference is required. Students taking this course will complete a project that culminates in presenting results of independent inquiry related to the conference topic. Presentation may be in the form of a publishable article, poster, public forum, etc., at instructor's discretion. This course is repeatable. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. MnTC Goal 8	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
GLST 1491	Global Studies Experience - International Travel	Students in this course will have the option to participate in a travel-study trip. Topics of study may include art, culture, natural history, geoscience, and geography of the country of focus. Classroom time prior to trip will involve basic lessons and preparation for travel. Post-trip classroom meetings will emphasize a shared reflection of travel experience and learning. NOTE: The travel-study trip is optional. Travel expenses are the responsibility of students who elect to travel. Students who do not travel will be given an alternate method of participation and/or research assignment with a cultural/language component related to the country of focus. MnTC Goals 5 and 8	1-4	NG Accuplacer Reading Score 237+

GLST 1492	Global Studies Cultural Immersion Experience	The purpose of this course is to provide the student with an opportunity to see the world through a cultural lens different from their own and, in doing so, to have a better understanding of the diversity of human experience. Students immerse themselves in a culture other than their own within Minnesota. A different culture than one's own, as used here, refers to a context in which the beliefs and knowledge that inform fundamental aspects of behavior in a community are different from one's own. This includes intensive interactions with individuals of racial, ethnic, socioeconomic or religious identity different from one's own. The intent of this cultural immersion experience is to provide participants with information about Ojibwe, Latino, Somali, Hmong, and other cultures from scholarly presentations, readings, observation and interaction. An awareness of how learners' race, background knowledge and experiences, culture, religion, and gender impact society. MnTC Goal 8	1-3	NG Accuplacer Reading Score 237+
GLST 2401	Global Studies Capstone	This course serves as the culminating academic experience for the Global Studies Certificate. Students expand, sharpen, and coordinate their comprehension by reviewing and discussing selected advanced readings in the field of Global Studies. Interdisciplinary perspectives and contemporary problems will be stressed. Students will be expected to draw upon and synthesize the knowledge they have acquired from their global experience. In addition, students in the capstone course will complete a research project using primary-source material. This research project will serve as the capstone experience project required of all students completing the Global Studies Certificate. These projects should address the principal factual data, historical events, problems, and ongoing challenges and concerns relevant to the subject selected. Students are also required to prepare and present a portfolio of their experience and research to CLC faculty, staff, students, friends, and family. MnTC Goal 8	1-3	GLST 1401 amd permission of instructor
GDES 1105	Concepts of Design	This course covers the principles and elements of design in the media industry.	3	none
GDES 1120	Publication Design	Students will develop an understanding for the set-up and layout of multiple page publications. They will create designs from concept to completion for magazines, newsletters, books, and brochures by presenting information that is unified across the full range of pages. The proper use of appropriate software programs for publications will be developed. Industry production planning and process will be applied.	3	none
GDES 1122	Graphic Design Production	In this course students will learn advanced skills using Adobe Illustrator, Photoshop, and InDesign. Combining elements from all three software programs to create real-world publications. Students will develop production skills for various advertising media to be produced on several types of printing technologies.	3	GDES 1105, GDES 1140, GDES 1142, GDES 1144
GDES 1124	Corporate ID	This course explores the development of symbols, logos, and brand identity that reflects a product's or company's image. The student will explore and prepare multiple types of logo identities and apply them to multiple branding pieces.	3	none
GDES 1126	Introduction to Adobe Creative Cloud	This course covers the basic levels of Adobe PhotoShop, Illustrator and InDesign software tools and techniques.	3	none
GDES 1134	Typography	This course introduces the process of design concepts with type. The student will learn how to research creative ideas using typography. They will use type to format different layouts of design projects.	3	none
GDES 1140	Adobe Photoshop	This course covers the basic to intermediate levels of Adobe PhotoShop software tools and techniques.	3	none
GDES 1142	Adobe Illustrator	This course covers the basic to intermediate levels of Adobe Illustrator software tools and techniques.	3	none
GDES 1144	Adobe InDesign	This course covers the basics to intermediate levels of Adobe InDesign software tools and techniques.	3	none
GDES 1146	Video Graphics	This course covers the integration of Adobe programs with the main emphasis on the use of Photoshop. We will be covering some design concepts using the design elements, principles and the use of typography for digital media display.	3	none
GDES 2100	Graphic Design I	This course continues the process and purpose of graphic design. Students will develop an understanding of the creative process and how to generate ideas, problem solving methodologies and implementation of design principles and elements while designing across all medias. Students will develop personal styles and approaches toward design and produce professional work in all forms of media.	3	GDES 1105, GDES 1140, GDES 1142, GDES 1144
GDES 2102	Graphic Design II	Students will continue to develop personal styles and approaches toward creating original designs. The goal will be to produce professional personal work for a consistent brand. Students will demonstrate an understanding of the business of graphic design and the careers that are available within the industry. Working together as a creative team and understanding giving and receiving constructive criticism will be applied. Students will create products to be displayed in their portfolios.	3	GDES 2100
GDES 2113	Art Direction	This course provides insight on working as an art director. Students will demonstrate advanced concept formulations as well as practice working under the direction of an art director to create requested requirements. These techniques will be applied to large graphic design projects where students will work as teams to create marketing campaigns and act as art directors. Students will also work directly with a photographer to art direct a photo shoot. Effective communication and learned skills will be demonstrated.	3	GDES 1105, GDES 1140, GDES 1142, GDES 1144
GDES 2120	Packaging	The purpose of this course is to provide an understanding of designing in three dimensions for a wide variety of products and preparing the design for different target markets. Students will also organize and plan a new product launch and create materials to aid the success of the launch.	3	GDES 1105, GDES 1140, GDES 1142, GDES 1144
GDES 2124	Portfolio Production	The purpose of this course is to assemble and demonstrate design abilities by producing a portfolio and a resume to showcase skills. The portfolio may take a variety of forms from two dimensional to digital. Students will be required to participate in professional portfolio reviews. Planning for the graphic design business and job hunting will also be discussed.	3	none
GDES 2126	Video in Social Media	Students will manage a host site and work with multiple video formats prepared for the web. Students will prepare a multiple social media presence and keep them updated with promotional posts of videos and blogs. Students will design and implement their site using templates that will be created with image manipulation and typography.	2	none
GDES 2130	Motion Graphics I	This course demonstrates how to build motion graphics and animations for video productions, social media, and kiosks. Students will work in 3D space creating depth in lighting, shadows, and special effects with typography, photographs, graphics, and video footage.	3	none
GDES 2132	Designs in Social Media	This course covers the basics of web site construction and maintenance. Using Adobe Muse software, students will design and implement web sites. Image manipulation, mobile devices, FTP software, and basic animation will also be covered.	3	none
GDES 2134	Motion Graphics II	This course continues working with special effects and templates to build cross-over video effects and motion graphic titles to video editing software.	3	none
GDES 2350	Internship	Internship is an elective opportunity to earn college credit through an individualized occupational experience that recognizes knowledge and skills that can be learned on the job.	1-6	instructor's consent

GDES 2352	Shop Internship	Students will work in a graphic design/print shop through Central Lakes College. They will work as a customer service representative, a designer, a job tracker, data entry specialist, billing specialist, a print broker and production specialist in the communication industry.	1-12	instructor's consent
GDES 2399	Special Topics	This course will examine selected topics of interest in Graphic Design. On demand.	1-4	none
HLTH 1501	Personal Health and Wellness	This course is designed to assist the student to establish a wholesome attitude toward the principles of healthful living and an interest in personal and community health. The students will evaluate health information correctly and work out solutions to immediate health problems to formulate a suitable program for daily living.	3	none
HLTH 1507	Drug Awareness	Study of the use, misuse and abuse of drugs and how it affects our society. Topics reviewed are history, classification of drugs and their effects, first aid treatment and rehabilitation options and laws governing drug use.	3	none
HLTH 1520	Principles of Nutrition	This course will emphasize the basic principles of nutrition including: nutrient categories and roles; dietary standards and guidelines; food selection criteria for an adequate, balanced diet; nutritional links to health; global nutrition concerns; and, food safety. Current issues in nutrition, such as the role of nutrition (and exercise) in disease prevention, and seeking reliable nutrition information will also be incorporated.	3	none
HLTH 1531	Women's Health	This course approaches healthful living that is specifically related to women. Traditional health topics such as nutrition, exercise, drugs, medical care and environmental health will be covered. Additional topics that have a major impact on women will be covered such as birth control, menstruation, childbearing, menopause and aging, sexuality, body image and violence toward women.	3	none
HLTH 1541	Human Sexuality	A study of human sexuality as it encompasses the physical, mental, emotional, social and spiritual aspects of one's health, relationships and lifestyle. Topics include sexual anatomy and physiology, relationships, gender issues, fertility management, STI's, sexual dysfunction, sexual coercion and commercial sex, as well as healthy sexual expression. Explanation of norms and beliefs will offer opportunities to explain personal values and choices.	3	none
HLTH 2550	Internship in Health	Internship is an elective opportunity to earn college credit through an individualized occupational experience that recognizes knowledge and skills that can be learned on the job.	1-4	none
HLTH 2570	Topics in Health	This course will examine selected topics of interest in Health. On demand.	1-4	none
HINS 1120	Health Information Privacy and Security	This course will introduce students to the Health Insurance Portability and Accountability Act (HIPAA), Health Information Technology for Economic and Clinical Health (HITECH) Act, and the American Recovery and Reinvestment Act (ARRA) and their requirements for health information privacy and security. The course will use real-world examples to explain the privacy and security rules and will enforce students' understanding of the compliance process.	1	none
HINS 1122	Body Structures and Functions for Healthcare Professionals	This course is designed for the non-medical healthcare professional and non-medical coders. The course will introduce the fundamentals of anatomy and physiology needed for the business and compliance side of healthcare. The course is organized by body systems and will introduce each body system and the organs it contains and how they function.	3	none
HINS 1142	Healthcare Information Systems	With the implementation of electronic health records (EHRs), there is a wealth of health data and information available. This course will focus on how health information data is an asset to healthcare facilities and ultimately to patients. This course will review the basics of electronic health records (EHR), general healthcare computer systems, and data retrieval. The course will explore how these systems and issues affect and are affected by the individuals working with health information.	3	none
HINS 1144	Pharmacology for Healthcare Admin	This course is designed for health information and administrative professionals and will cover drug terminology, pharmacology names, drug classifications, and the medical uses of medication.	1	BIOL 1404 and HINS 1360
HINS 1150	Introduction to Diagnosis & Procedure Coding	This course will introduce students to the basic medical coding principles and conventions of ICD-10-CM/PCS, CPT, and HCPCS coding. Students will learn the application of coding principles using examples and hands-on exercises. The course will require students to apply their knowledge of medical terminology and human biology.	3	BIOL 1404 or BIOL 1510
HINS 1152	Medical Insurance and Billing	This course focuses on the revenue cycle and how the rules and guidelines of medical insurance affect patient billing and the healthcare facilities bottom line. The course will cover the importance of medical practice in billing both patients and payers, how to manage both patient records and the billing/collections process, and the importance of clean claim submissions. Emphasis will be placed on applying the rules of Health Insurance Portability and Accountability Act (HIPAA) and Health Information Technology for Economic and Clinical Health Act (HITECH) to ensure compliance, maximum reimbursement, and the electronic exchange of health information.	2	none
HINS 1154	Introduction to Health Data Analysis	This is an introductory course provide you with the foundation and knowledge of healthcare data analysis. This course will cover how to manage, analyze, and present data. The course cover how to identify problems and create recommendations from the data that can be used by healthcare organizations to make effective decisions.	3	none
HINS 1156	Interpersonal Skills for Healthcare Professionals	A career in healthcare has its own unique pressures to uphold standards, follow procedures, and work with a diverse group of individuals who are experiencing a variety of emotions concerning their own health or a family members health; this course will help improve your interactions with patients, providers, and colleagues by focusing on self-management, interpersonal skills, communication skills, and emotional skills. This course will provide you the information and tools to help you take responsibility for your own success in the industry/workforce beyond the technical skills required to complete job tasks.	1	none
HINS 1163	Medical Office Procedures	This course covers specific administrative responsibilities in the medical practice. The course covers office communication, scheduling, basics of managing health information, basics of insurance and patient billing. The course uses simulations to expose students to a clinic scenario to include patient interaction, third-party payer interaction, and provider interaction.	2	none
HINS 1165	Medical Records Management	This course builds the foundation for managing medical records. This course will emphasize the various patient record formats and required content, the maintenance of the patient record, and the health data provided in an electronic health record. Students will be introduced to data quality and how the data is used for management decision making and strategic planning.	3	none
HINS 1360	Medical Terminology	This course will introduce the building of medical words including prefixes, suffixes, combining forms from Greek and Latin word parts, and the rules for connecting them to form medical terms. Definitions and spelling of word roots, prefixes, and suffixes emphasized. Emphasis is placed on spelling and defining medical words. A foundation is created for the continued development of medical vocabulary. Medical abbreviations are also presented for each medical specialty.	3	none
HINS 1380	Healthcare Independent Study	The intent of this course is to allow flexibility in providing learning experiences to meet the special needs and wants of the students. Students will meet with the instructor to set up their own course of study with the instructor's approval.	1-6	consent of instructor

HINS 2140	Advanced Medical Coding	This course is a continuation of the introductory course and will reinforce the understanding and concepts of the coding rules for International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) coding systems, Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding (HCPCS) Level II. The course will continue the explanation of coding concepts and use case scenarios to further challenge the students understanding and application of the coding systems.	4	BIOL 1404, HINS 1150, HINS 1360
HINS 2142	Medical Coding Certification Prep	The focus of this class reinforces the principles of medical coding related to the three main code books: Current Procedural Terminology (CPT), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Code Set and Healthcare Common Procedural Coding (HCPCS) Level II. This course is recommended for anyone who is preparing a career in medical coding for a physician's office and strongly recommended for anyone who is preparing for American Academy of Professional Coder's (AAPC) Certified Professional Coder (CPC) Certification examination.	3	BIOL 1404, HINS 1144, HINS 1360, HINS 2140
HINS 2144	Legal Aspects of Healthcare	This course is designed to breakdown the complexity of healthcare law and legal issues. The course will provide individuals with the fundamentals of laws, regulations and ethics surrounding the delivery of healthcare and the management and protection of health information.	2	none
HINS 2148	Healthcare Management and Organization	This course will provide an introductory understanding of healthcare management and organization; its major functions, roles and responsibilities. The course will cover performance improvements, technologies, cost and revenue management, ethics, law, fraud and abuse, and skills for working in teams.	3	none
HINS 2172	Reimbursement Methodology	This course provides additional training as it relates to medical billing and health insurance reimbursement. The course provides the step-by-step details of how each payment system functions. Topics covered in this course include assessing and using fee schedules, payment classification groups, exclusion lists, market baskets, and wage indexes required for accurate reimbursement. The course will also look at the various methods, plans, and programs of government-sponsored payment systems, commercial insurance, and managed care.	2	HINS 1152
HINS 2190	Professional Practicum	Students will spend approximately 2 weeks/80 hours in a Patient Care Call Center, Scheduling Department and/or Preregistration Department within a local healthcare system. The practicum allows the student to experience the role in an introductory position. The collaborating healthcare system will determine the number of hours spent and student work schedule to be completed during the semester. This will challenge the students knowledge and skills to help prepare them for work in the industry. Student must be enrolled as a Healthcare Administrative Specialist Certificate student.	2	permission of instructor
HINS 2390	Healthcare Internship	Internship is an opportunity for students to earn college credit through an individualized occupational experience that recognizes knowledge and skills that can be learned on the job.	1-3	consent of instructor
HEOM 1101	Safety & First Aid	This course covers the elements of construction safety needed for heavy equipment operators. Students will receive their American Red Cross First Aid/CPR/AED certification cards.	1	none
HEOM 1107	Tools, Fasteners & Shop Practices	This course covers the basics of how to identify and use hand tools, identification and use of power tools, fasteners (standard and metric), course and fine thread, hardness grades, fittings (types and threads), O rings and measuring tools. The student will learn general shop practices for completing assigned shop projects.	1	none
HEOM 1108	Math/Estimating	This course covers construction math applicable to the excavation and grading industry. Earthwork volumes, slopes, conversions and geometric calculations are the primary focus. For entry level operations.	2	none
HEOM 1110	Preventative Maintenance	This course is designed to help students develop common practices that will assist in making them better heavy equipment operators and employees. Students will learn maintenance techniques that minimize unscheduled repairs by investigating how and what to look for. This course helps students learn to identify how to maintain operating costs within a budget.	5	none
HEOM 1151	HE Welding	This course covers basic fundamentals of MIG (wire) welding and ARC welding, oxyacetylene cutting and different applications for heavy equipment.	1	none
HEOM 1165	CDL	This course covers state standards for a commercial driver’s license (CDL) road test.	3	Minnesota CDL Permit
HEOM 1166	Class A CDL Permit	Material to be covered will be the four sections required for obtaining a commercial driver’s license permit: pre-trip, air brakes, general knowledge and combination tractor/trailer as per the Minnesota Commercial Driver’s Manual put out by MNDOT.	1	none
HEOM 1200	Introduction to Operations	This course will give the students a brief introduction to various equipment types, their components and controls, pre-start inspections, basic equipment operation and equipment shutdowns. The focus will be on machine controls, component identification, basic operating technique and safety.	1	none
HEOM 1211	Servicing I	This course will teach the student the importance and necessity of doing thorough and complete scheduled servicing of heavy equipment in accordance with manufacturer’s recommendations. Course includes instructor guided servicing on equipment.	3	none
HEOM 1212	Servicing II	This course will teach the student the importance and necessity of doing thorough and complete scheduled services according to manufacturers' recommendations and is a continuance of HEOM 1211 Servicing I.	2	HEOM 1211
HEOM 1261	General Lab	Students will work in a shop setting on a variety of equipment repair projects. Type of projects will depend on machine availability.	5	none
HEOM 2102	Survey/Blueprints	This course covers the basic skills needed to identify and apply surveying techniques (mainly elevations and cuts and fills) required for the excavation and grading industry. Blueprint reading as it applies to excavating and grading will be taught to an application level.	5	HEOM 1108
HEOM 2103	Soils & Compaction	This course covers common soils used in the construction industry. Soil makeup and characteristics; how soil is compacted, types of equipment and methods used. How compaction equipment produces compactive effort. How soil moisture, density and gradation is tested.	4	none
HEOM 2110	Backhoe Theory	This course covers the basic construction and preliminary operation instructions of excavators and tractor-loader-backhoe.	1	none
HEOM 2111	Loader Theory	This course will provide the student the opportunity to learn the values of a high production layout, pit operations, truck operations and loader components.	1	none
HEOM 2134	Operations Theory	This course covers machine types, pre-trip maintenance and common operator mistakes. Lecture, visual aids and hands-on training are used in order to instruct student.	1	none
HEOM 2135	Construction Theory	This course will give the student a brief overview of correct machine application and use based on current industry standards. Topics addressed but not limited to include: machine application and use, construction best practices, site preparation and road building, and construction site effective communications.	1	none
HEOM 2136	Grading Lab I	This course is the hands-on part of crawler dozers, motor graders and scrapers. Safe operations is taught and stressed along with the basic methods of operating these machines. Practice is emphasized with simple projects built individually under the guidance of the instructor. Machine control and care are the goal.	5	none

HEOM 2138	Grading Lab II	This course is the next level of operation for crawler dozers, motorgraders and scrapers. More complex projects are attempted with production and multiple machines on projects. Industry standards for quality and production are goals.	4	none
HEOM 2140	Excavation Lab I	This course covers basic construction and operation of bucket type equipment. Various operating methods, techniques and procedures will be covered.	3	none
HEOM 2141	Excavation Lab II	This course covers the basic construction and operation of bucket type equipment. Various operating methods, techniques and procedures will be covered. Students will further their skills on bucket type equipment and go into more detail on techniques used on the job.	3	none
HEOM 2142	Excavation Lab III	This course covers a more advanced level of operation for bucket type equipment. Various operating methods, techniques and procedures will be covered. Students will further develop their skills on bucket type equipment and go into more detail on techniques used on the job. The primary focus at this level is operating in a safe and productive manor and constructing project to within industry standard spec tolerance.	3	none
HEOM 2150	Competent Person	The primary focus of this course is the requirements found on O.S.H.A.'s subpart "P" Excavations. Additional topics covered will be those found in O.S.H.A. standards that pertain to the construction industry. This course allows students participating in the course to receive their O.S.H.A 10 hour construction safety card.	2	none
HEOM 2350	Operator Internship	Internship is an elective opportunity to earn college credit through an individualized occupational experience that recognizes knowledge and skills that can be learned on the job.	1-16	instructor's consent
HEOM 2370	Special Topics	This course will examine selected topics of interest in Heavy Equipment. Offered on demand.	1-3	instructor's consent
HIST 1412	World History I, From the Beginning to 1500	This course will examine the development of world civilizations from pre-history to 1500, and will compare the religion, politics, economy and culture of various world civilizations. Examples will be drawn from Africa, Europe, Asia and the Americas. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 237+
HIST 1413	World History II, 1500 to Present	This course will explore the major developments in world history from 1500 to the present. Topics will include the development of major culture areas and cultural groups that existed in 1500, the influence of European expansion and colonialism, democratic revolutions, industrialization, movements for national liberation, and the rise of the global economy. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 237+
HIST 1472	U.S. History to 1865	This course will acquaint students with the basic chronological narrative and themes of America's past from native North America through the Civil War. Social, political, economic and cultural developments will be covered. A multi-cultural perspective will be incorporated into the course, taking into account those Americans denied access to positions of political and economic power in the past. Analytical skills focusing on reading, writing and use of primary documents will be emphasized. MnTC Goals 5 and 7	3	NG Accuplacer Reading Score 237+
HIST 1473	U.S. History Since 1865	This course will survey the history of the American people since Reconstruction. Social, political, economic and cultural developments will be covered. A multi-cultural perspective will be incorporated into the course, taking into account those Americans denied access to positions of political and economic power in the past. Analytical skills focusing on reading, writing and use of primary documents will be emphasized. MnTC Goals 5 and 7	3	NG Accuplacer Reading Score 237+
HIST 1475	Honors U.S. History 1865 to Present	This course will survey the history of the American people since 1865. Social, political, economic and cultural developments will be covered. A multi-cultural perspective will be incorporated into the course, taking into account those Americans denied access to positions of political and economic power in the past. Analytical skills focusing on reading, writing and use of primary documents will be emphasized. This honors course will feature an expanded reading load, seminar-style class discussions, and in depth writing assignments. MnTC Goals 5 and 7	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
HIST 2404	Minnesota History	This course will survey the history of people who have inhabited the land area we know today as Minnesota. Topics will include: Native North Americans, European exploration and the fur trade, early American settlement, Indian and white cultural interactions, post Civil War settlement, the growth of agriculture and industry, protest politics in the 19th and 20th centuries, and an examination of the "People of Minnesota". Minnesota will be a case study in which we will examine many of the historical processes which have shaped the Midwest and indeed much of the United States. MnTC Goal 5	3	NG Accuplacer Reading Score 237+
HIST 2411	American Indian History	This course is a survey of pre-contact Native North America to the present. It will spend time examining the world of Indian peoples before the arrival of Columbus, the invasions of America by Europeans, the fur trade and interactions of Indians and whites during the colonial period, federal Indian policy in the early national period, conflict on the plains, efforts to "Americanize" the American Indian, twentieth century issues including urbanization and relations with the federal government. MnTC Goals 5 and 7	3	NG Accuplacer Reading Score 237+
HIST 2420	History of Women in the U.S.	This course will explore the history of women in the United States from pre-European contact to the present. Our topics will be as diverse as are women themselves. We will explore women's changing roles in politics, the law, the labor force, the family and popular culture. The goal of the course is to acquire not just a richer understanding of women's experiences, but also an enhanced understanding of gender and a radically revised historical perspective. Because women differ from each other nearly as much as they differ from men, we will focus throughout the course on the relationships between groups of women divided by class, by race, and by ethnicity. MnTC Goals 5 and 7	3	NG Accuplacer Reading Score 237+
HIST 2570	Topics in History	This course will examine selected topics of interest in History. Offered on demand.	3	none
HORT 1103	Ornamental Trees and Shrubs	This course deals with the identification of trees, shrubs, and vines grown in Minnesota. There will be an emphasis on their culture, care, use and classification.	4	none
HORT 1104	Plant Science	This course is a survey of the biological considerations for growing and caring of plants. This class will cover plant characteristics, classification, and biology; soil considerations, components, uses, and characteristics; propagation types and strategies of woody and herbaceous plants.	4	none
HORT 1106	Applied Plant Science Lab	This course is a survey of the horticulture industry and its practices. Lab time will be spent touring parts of the industry, interacting with guest speakers from the industry, and examining plants, their parts, and their needs.	2	none
HORT 1108	Fundamentals of Floral Design	This course covers floral design principles required to create popular traditional flower arrangements. Mechanics, terms, and basic floral design techniques will be covered. Students will be actively involved in creating floral designs using the principles presented in class. This course also covers the identification, marketable units, handling requirements, and other characteristics of major fresh flowers and greens used in the floral industry.	4	none
HORT 1113	Annuals and Perennials	This course covers the herbaceous and perennial flowering plants grown in the upper Midwest. Particular attention is placed upon identification of the plant materials and the classification of these plants according to cultural requirements and use characteristics. Students will identify the plants by live samples, pressed samples, and photos. A perennial garden and annual garden will be designed.	4	none

HORT 1118	Indoor Flowering & Foliage Plants	This course covers identification, characteristics, cultural requirements, and use of potted flowering plants, and indoor foliage plants. The use and characteristics of materials used for permanent plants and containers will also be discussed. Particular attention is placed upon identification and classification of these materials according to cultural requirements and use.	4	none
HORT 1122	Local Food Production	This course covers the proper growing methods for fruits, vegetables and herbs commonly grown in Minnesota, as well as newer species that show promise for future use. Emphasis is placed on maximizing production while maintaining sustainable practices that result in healthy food for personal and/or commercial use. The value of providing local produce, as well as the methods used to market and sell what has been grown is also stressed in this course.	3	none
HORT 1150	Turf Management	This course covers the proper establishment and maintenance practices for turfgrasses in the Upper Midwest. Topics include identification of turf, seeding and sodding practices, mowing techniques and equipment, fertilizing, aerating, and proper maintenance of turf.	3	none
HORT 1180	Sustainable Landscaping	This course covers the principles of sustainable living through our backyards. Students will be exposed to landscaping for wildlife, and shoreline protection from a habitat perspective. They will study the creation and management components of living roofs and walls. Sustainable landscape practices including, but not limited to wind breaks, rain gardens, building budgets and edible landscaping and square foot gardening will also be covered. Students will approach water quality from an environmental prospective down through a human recreational standpoint.	3	none
HORT 1196	Sustainable Greenhouse Management	This course applies sustainable management and production practices to the controlled environment of a greenhouse. Crops covered include, but are not limited to bedding plants and other floral and food crops with peak production in the winter months. Topics include crop, root media, nutrition, and harvest management decisions as well as monitoring crop development stages. Financial and crop management strategies will be analyzed and put into practice. Greenhouse design, material and equipment selection, and construction will also be a major component of this class.	4	none
HORT 1310	Special Project	This course is designed so the student can put into practical use the various skills and knowledge gained in other course work. The course is independent study with no formal class hours.	1-6	instructor's consent
HORT 1345	Internship	This course is designed to provide students with an opportunity to work on a full-time basis in some aspect of horticulture.	1-6	instructor's consent
HORT 1398	Topics in Horticulture	Students will be exposed to many different topics in Horticulture. Some topics will be explored in more depth than they were touched on in other Horticulture classes, some topics are not covered in other Horticulture classes. Most topics will be covered by guest speakers.	1-3	none
HORT 1399	Gardens of the World	This course is a travel experience to selected countries for the purpose of studying the plants, gardens, and culture of those countries. The goal of this experience is to better understand other parts of the world and their influence on the horticulture industry in the United States. Because the horticulture industry is influenced by global production, technology and design trends, this is an opportunity to experience these influences first hand.	4	instructor's consent
HORT 2112	Aquaponics and Hydroponics	In this course students will learn to design aquaponics and hydroponics systems, to raise fish and plants in those systems, and to monitor and control the quality of all inputs into the systems so that the plants and fish produced will be of such a quality that they will provide healthy, nutritious meals and high quality flower crops to the end-user. Special emphasis is placed on management decisions based on economic, environmental, and social sustainability. Students will spend time in the classroom learning about the systems and also participate in lab activities in the aquaponics and hydroponics greenhouses on campus.	5	none
HORT 2116	Integrated Pest Management	This course is a study of insects and diseases that have an important economic impact in the fields of horticulture, floriculture, and forestry. It provides an introduction to the theory and practice of solving problems that affect many different types of crops. Management methods include detection, scouting procedures, economic thresholds, and cultural and biological control. Emphasis is also placed on assessing insects and diseases that are common to our crops, backyards, and greenhouses.	4	none
HORT 2140	Arboriculture	This course looks at the various aspects of woody vegetation in urban areas. Focus is on the biology and physiology of woody vegetation and the various aspects of field work: pruning, planting, fertilizing, mulching, health evaluation, inventorying and mapping of urban trees.	4	none
HORT 2150	Retaining Wall & Fence Construction	This course presents construction techniques for a variety of retaining walls using several different construction materials. Smaller construction projects such as benches, arbors, and containers will be covered as time permits. Landscape installation and maintenance practices such as mulching, edging, and weed control will also be discussed. Estimating and bidding procedures will also be covered. Practical hands on training will be provided as much as time and weather permit.	4	none
HORT 2155	Deck, Patio & Pond Construction	This course covers techniques for designing, estimating costs, and building patios and walks, wooden decks, and water gardens. Proper planting, edging, mulching and other installation practices will also be covered. As much as time and weather permits, students will practice actual building and landscape installation techniques.	4	none
HORT 2165	Landscape Design	Students will learn to: 1) carefully analyze and integrate client and site information into the landscape design; 2) apply graphic design skills; and 3) develop the ability to assess the visual feel of the design. These skills are developed through the frequent application of graphic and design concepts to landscape design projects. This course is the first of two concentrating on landscape design and is focused on the application of design principles to basic residential and commercial landscape design projects.	4	none
HORT 2170	Advanced Landscape Design	This course is the second in a series of landscape design laboratory experiences and is focused in advanced design applications for commercial and residential landscape design. The design projects in this course are at a higher level of difficulty and require greater analysis and integration of skills than Landscape Design I.	4	HORT 2165
HORT 2180	Computer Assisted Landscape Design	This course will present information on the use of site Designer LANDCADD, Dynascape, and other landscape design software programs used for creating landscape drawings, pricing structures, and business management decisions. Topics include layout and design, estimating projects, and complete presentation packages.	4	none
HORT 2310	Advanced Special Project	This course is designed so the student can put into practical use the various skills and knowledge gained in other course work. The course is independent study.	1-6	none
HSER 1100	Introduction Human Services	HSER 1100 is an introductory level course that will develop student's knowledge of the social work profession and values. Major topics covered include history and evolution of the social work profession, varied work setting social workers practice in, roles and responsibilities of the social work profession and understanding of the NASW code of ethics. Students will self-assess and evaluate personal attitudes regarding human diversity, oppression and privilege as it relates to issues of social justice and systemic oppression.	3	none

HSER 2150	Field Experience in Social Work	The purpose of this course is to provide students with a supervised experience working at a human service agency. Students will gain knowledge and skills about human service concepts as well as practice modeling the values and ethics learned in the human service program.	4	Instructor permission required. Students must successfully complete backgroup check prior to participating in this course.
MTTS 1110	Principles of Machine Operations I	Principles of Machine Operations I will expose students to multiple entry level facets of machine tool industries. Students will learn the background of machining processes, proper materials selection, machine operations and applications. Students will apply measuring technologies and analysis of product finishes. Creating order of operations in machining processes will be emphasized in this course.	2	none
MTTS 1111	Principles of Machine Operations II	In this course students will continue development of skills from MTTS 1110. Included will be strong emphasis on project scheduling and scheduling of production processes as done in industry. Standards for performance and production will be emphasized. Concepts of manufacturing efficiency and quality will be introduced in this course.	2	MTTS 1110
MTTS 1120	Machine Operations I	In this course students be introduced to lab operation of the machines used in the industry. Cutting tools will be applied to various materials through machining operations. Students will begin to apply quality analysis skills to products they create. Students will be introduced to milling, grinding, and turning processes throughout the course. In this course, students will also be introduced to industry standard safety practices.	3	none
MTTS 1121	Machine Operations II	In this course, students will build on their experiences in MTTS 1120. More complex tooling applications, finishes, and product analysis will be introduced in this course. Students will begin application of directions found in industry prints and begin development of project plan and multi-component projects. Development of safety and maintenance programs will be incorporated in this course.	3	none
MTTS 1122	Machine Operations III	In this course, students will experience growth in project planning and complex operations. Tool performance and tool holding will be emphasized as project complexity grows. Machine and shop maintenance operations will be emphasized through safety plan development and implementation. Quality assessment of produced parts will incorporate coordinate measuring systems.	3	MTTS 1120, MTTS 1121
MTTS 1124	Introduction to Engineering Graphics	Students will explore the application of solid modeling to create computer renderings up to three-dimensional objects. Students will analyze two-dimensional planes and create 3D computer models. Multiple layered projects will be created with sub-assemblies. Students will generate computer animations of drawing components.	2	none
MTTS 1130	Print Reading	In this course, students will understand the language of industry prints. Beginning with basic symbols and lines, students will build their understanding to include multiple view prints. Dimensioning systems and conversions will be emphasized. Students will also explore multiple projection angles in the print interpretation.	2	none
MTTS 1131	Print Appilcations	Building on the knowledge from MTTS 1130, students will expand their critical analysis of prints. This will include visualizing the end product, planning needed drawings to support the end product, and validating production quality.	2	MTTS 1121, MTTS 1130
MTTS 1134	CNC Operations	In this course, students will begin development of CNC programs. Students will learn G- and M-codes, create programs, test and modify programs, and translate manual knowledge to CNC operations. Students will be introduced to the foundations of complete project management from design to production.	3	MTTS 1111
MTTS 1135	CNC Programming and Process Planning	This course introduces students to the coding aspects of the CNC operation. Students develop code to translate manual processes to CNC. Students will be introduced to varied methods to develop programs. Project management skills will continue to be developed. Application of various CNC machines will be clarified in this course.	2	none
MTTS 1140	CAD/CAM I	Computer-aided manufacturing concepts are introduced through this course. Students will use computer programs to produce drawings, apply coordinates, build tool paths, and create transition documents for use in machining lab. Simulations will be demonstrated to validate accuracy of programs. Students will learn editing functions to increase efficiency or correct programs. Application of safety concepts will be emphasized.	2	none
MTTS 1264	Introduction to Machining Processes	This course will introduce students to the machining processes. It will focus on the theory and process of squaring material, material removal, hole making, thread forms, fasteners, measurements, and abrasives used in manufacturing.	2	none
MTTS 2110	Geometric Dimensioning and Tolerancing	The course designed to enable students to interpret ANSI standards. Students will learn the symbols, rules, and geometric controls shown on today's prints. Students will be given prints and exercises to enhance their skills in print reading and apply the principles of geometric dimensioning and tolerancing.	1	none
MTTS 2112	Metallurgy	In this course, students will gain deep understanding of the material types and applications used in the machining industry. Testing of materials and finished products will be emphasized. Students will analyze metal parts produced through various industry processes.	1	none
MTTS 2116	Introduction to Electric Discharge Machining	Students will be introduced to the complex operations of electric discharge machining (EDM). Students will experience both wire and sink EDM operations and applications of these technologies for efficient production of highly technical processes. Electrical discharge machining, sometimes colloquially also referred to as spark machining, spark eroding, burning, die sinking, wire burning or wire erosion, is a manufacturing process whereby a desired shape is obtained using electrical discharges (sparks).	2	MTTS 1135
MTTS 2118	Jigs and Fixtures	Complex machining processes require creativity to safely resolve industry challenges. In this course students will be faced with intricate industry situations to safely manufacture parts. The introduction of multiple jigs and fixtures and their potential applications will be discussed and practiced. The safe application of these tools will be emphasized.	1	MTTS 1122
MTTS 2130	CNC Milling and Turning	Students will begin application of knowledge learned to integrate multiple computerized processes. Applying industry programing codes and CAM software, students will begin run of production of parts, build efficiency on machine setup and operation, and perform quality assessments of completed parts. Implementation of safety programs related to CNC operations will be emphasized.	4	MTTS 1134, MTTS 1135
MTTS 2134	CNC Operations Theory	Students will analyze production of complex parts and apply appropriate geometry to constructing programs. Multiple axis machining and other complex operations will be introduced to the projects produced in this course. Principles of automation will be incorporated in work planning.	2	MTTS 1130
MTTS 2140	CAD/CAM II	Building on skills from MTTS 1140, students will introduce multi-dimensional, multi- offset projects to the CAM studio. Programming will include test simulations of complex designs. Advanced jigs and fixtures will be required to manage safe production. Students will be challenged to maximize efficiency and productivity in their program designs.	2	MTTS 1140
MTTS 2155	Capstone Project	This course will examine selected topics and projects of interest in Machine Tool Technologies. Offered on demand.	1-6	instructor's permission

MTTS 2190	Internship	Internship is an opportunity to earn college credit through an individualized occupational experience that recognizes knowledge and skills that can be learned on the job.	1-6	instructor's permission
MAPS 1101	Basic Engines	This course is designed to provide the basic understanding of the theory and operation of two-stroke and four-stroke engines.	3	none
MAPS 1103	Basic Engines Lab	Students will disassemble, test, repair, reassemble, and operate a variety of small engines.	4	none
MAPS 1106	Introduction to Electronics	The focus of this course is a basic understanding of electricity and electronics using electrical instruments and electronic testing.	2	none
MAPS 1120	Lawn and Garden	This course covers chain saws, weed trimmers, and basic drive systems used in lawn and garden equipment. Students will perform maintenance procedures, tune up, and chain saw sharpening.	2	none
MAPS 1130	Marine Outboard I	This course is an introduction to marine power and the theory and operation of an outboard powerhead.	4	none
MAPS 1132	Marine Outboard II	This course covers advanced theory and repair of the electrical systems, carburetion, and tune-up of the outboard engine.	4	none
MAPS 1134	Marine Lower Unit	This course covers the design and operation of lower units on a wide variety of marine engines. Propellers, rigging, and boat performance are also covered in this course.	4	none
MAPS 1136	Industry Certifications I	This required course allows students the opportunity to earn manufacturer industry certifications in the marine and powersports field. These certificates are required in certain sectors of the industry.	2	none
MAPS 1140	Snowmobile Systems and Lab	This course is designed to provide the student with a growing knowledge of today's modern snowmobile. The emphasis of the course is carburetion, clutches and drive systems, and suspension.	4	none
MAPS 1370	Open Lab I	This course allows students the opportunity to work on individualized projects for college credit. With a plan in place between instructor and student, supervised lab experience is gained in this class.	1-6	none
MAPS 2133	Advanced Marine	This course introduces the student to marine stern drives, inboard engines, and controls.	3	MAPS 1130, MAPS 1132 and MAPS 1134
MAPS 2134	Advance Marine & Personal Water	This course covers advanced systems in marine such as oil injection, power trim and tilt, steering and remote controls along with an introduction to personal watercraft vehicles.	3	MAPS 1130, MAPS 1132 and MAPS 1134
MAPS 2135	Machine Shop	This course introduces the student to many of the specialized repairs that are done to MAPS engines; i.e., cylinder boring, honing, deglazing, and crankshaft repair.	2	MAPS 1130, MAPS 1132
MAPS 2136	Industry Certifications II	This required course allows students the opportunity to earn manufacturer industry certifications in the marine and small engine field. These certifications are required in parts of the industry.	2	none
MAPS 2143	Diagnostic Trouble Shooting	This course covers diagnostic troubleshooting and repair of fuel, electrical, suspension and drive systems.	3	MAPS 1101, MAPS 1106
MAPS 2162	ATV Motorcycle Systems I	This course introduces the student to the ATV and small motorcycle engine, clutch, and transmission.	4	MAPS 1101, MAPS 1106
MAPS 2164	ATV Motorcycle Systems II	This course covers final drives, suspension, tire repair, balancing, and also mechanical and hydraulic brakes that are used on ATV/motorcycles.	4	MAPS 1101, MAPS 1106
MAPS 2169	MAPS Tune Up	This course allows the student to perform tune-up procedures on marine and powersports equipment that has already been covered.	3	MAPS 1130, MAPS 1132 and MAPS 1134
MAPS 2350	Internship	This internship provides students with on-the-job experience in the student's career major. A competency-based training plan will be developed for each student in collaboration with the employer. This is a cooperative program between Central Lakes College and a participating organization to allow the student to work in an on-the-job situation.	1-8	Instructor's Permission
MATH 0800	Fundamentals of Math	This course covers topics in algebra and geometry with a focus on problem-solving, understanding mathematical properties being used, justifying steps, and interpreting results. Connections between these two branches of mathematics will be made as students study graphing equations, apply the Pythagorean Theorem, and solve equations involving right triangle trigonometry, among other applications.	3	NG Accuplacer Math Score 235+
MATH 0810	Math Pathways	This course will review several pre-algebra topics and introduce topics from elementary algebra, set theory, counting, probability, and basic statistics. Use of the TI-84 Plus graphing calculator will be emphasized in all topic areas. Successful completion of this course will prepare the student for MATH 1441 Concepts of Math or MATH 1460 Introduction to Statistics.	3	NG Accuplacer Quan Score 240+ or MATH 0800
MATH 0820	Intermediate Algebra	This course will review many introductory algebra topics as well as introduce more advanced topics in algebra. Topics taught in this course include: linear equations and inequalities, graphing equations and inequalities, writing equations of lines, functions, systems of equations, exponents, polynomials, factoring, rational expressions and equations, complex numbers, radicals, and quadratic functions. Additional topics may also be covered.	4	NG Accuplacer Quan Score 240+
MATH 1441	Concepts in Mathematics	This is a college level math course that demands a fundamental algebra background and familiarity with This is a college level math course that demands a fundamental algebra background and familiarity with a calculator. Topics include at least four of the following: geometry, trigonometry, graphs, logic, probability, statistics, finance, numeration systems, and set theory. MnTC Goal 4	3	NG Accuplacer Quan Score 265+ or NG Accuplacer Alg Score 235+
MATH 1460	Intro to Statistics	This course covers descriptive statistics, sampling, probability, probability distributions, normal probability distributions, estimates and sample size, hypothesis testing, correlation and regression, inferences of two samples, and process control. MnTC Goal 4	4	NG Accuplacer Quan Score 265+ or NG Accuplacer Alg Score 235+
MATH 1461	Honors Introduction to Statistics	This course covers descriptive statistics, sampling, probability, probability distributions, normal probability distributions, estimates and sample sizes, hypothesis testing, correlation and regression, inferences of two samples, and process control. Much of the content of this course will involve independent learning with classroom lecture involving more in-depth involvement with statistical data. Students enrolled in this course will be required to do additional reading of statistical writings, participate in group projects, present projects to the class, and develop an original survey. Daily assignments will involve use of online homework to accompany the readings from the course. A student must be accepted into the honors program prior to registration. MnTC Goals 2 and 4	4	NG Accuplacer Quan Score 265+ or NG Accuplacer Alg Score 235+
MATH 1470	College Algebra	This course covers topics such as functions and graphs, equations and inequalities, polynomial functions, rational functions, inverse functions, exponential functions, logarithmic functions, sequences and series, systems of equations and inequalities, and problem solving. A graphing approach is used and therefore the use of a graphing calculator will be highly emphasized. MnTC Goal 4	3	NG Accuplacer Alg Score 250+
MATH 1472	Precalculus	This course is intended to provide the essential mathematical background needed in calculus. Topics include equation solving, functions (polynomial, radical, rational, exponential, logarithmic, trigonometric, and inverse trig), identities, applications, and parametric/polar graphing. MnTC Goal 4	5	NG Accuplacer Alg Score 263+

MATH 1477	Calculus I	Review of the concept and properties of a function. Emphasis on the graphing and behavior of a function. Limits are introduced and developed. The derivative of a function is defined and applied to algebraic and trigonometric functions. Anti-differentiation and elementary differential equations. Definite integral as a limit of a sum and as related to anti-differentiation via the Fundamental Theorem of Calculus. Applications to maximum, minimum and related rates. Differentiation and integration of exponential and logarithmic functions. MnTC Goal 4	5	NG Accuplacer Alg Score 276+
MATH 1478	Calculus II	Math 1478 is a second course in the Calculus of one variable. Topics include differentiation and integration of inverse trigonometric function and hyperbolic function. This course also includes slope fields and first order linear differential equations. Applications of integration will be used to calculate the area between curves, volume using the disk and shell method, arc length and surfaces of revolution, work, moments and centers of mass. It incorporates integration by parts, trigonometry integration, trigonometric substitution, partial fraction, indeterminate forms, L'hopital's Rule and improper integrals. Math 1478 also works with Infinite series, p-series, test for convergence and divergence, Taylor Polynomials and the representation of functions by power series and applications of calculus to parametric and polar equations. MnTC Goal 4	5	MATH 1477 or MATH 1480
MATH 1480	Honors Calculus I	This honors course is a first course in calculus, covering topics with greater depth than the traditional course. Course topics include: the definition of a limit and processes for determining limits; the definition of the derivative; rules of differentiation using algebraic, trigonometric, exponential and logarithmic functions; applications of the derivative; anti-differentiation, elementary differential equations, and the Fundamental Theorem of Calculus. Students enrolled in this course will be required to do supplementary reading of articles pertaining to calculus, study substantial problems involving calculus theory and/or application, and present the results of their investigations to the class. Communicating mathematically, whether through in-class presentation, tutoring on-campus, or tutoring in the wider community, will be strongly encouraged. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. MnTC Goal 4	5	Accuplacer College Level Math score of 86 or greater, ACT Math score of 24 or greater; or MATH 1472
MATH 1500	Applied Mathematics	This course provides an overview of foundational topics in mathematics. These topics include at least six of the following: numerical properties, percent calculations, calculator usage, problem-solving, estimation, data conversions, real number system, geometry, ratios and proportions, statistics and trigonometry.	3	none
MATH 1510	Math for Elementary Teachers I	This is the first of two math courses providing a background for teaching in the elementary school. It emphasizes the use of mathematics manipulatives for modeling the basic operations. Topics will include addition, subtraction, multiplication and division of whole numbers, number theory related to fractions, fractions, decimals, and integers.	3	none
MATH 1512	Math for Elementary Teachers II	This is the second of two math courses providing a background for teaching in the elementary school. It emphasizes the use of mathematics manipulatives for modeling the basic operations. Topics will include decimals, percents, topology, transformations, geometry, discrete mathematics, probability, and statistics.	3	none
MATH 1520	Introduction to College Algebra	This course is intended for students who have completed Intermediate Algebra but are not fully prepared for College Algebra, or whose placement test score is in the top range for Intermediate Algebra. It includes introductory college-level topics, but not at the rigor, pace, and depth of College Algebra. Many of the topics from Intermediate Algebra are reviewed within the coverage of these college-level topics.	3	NG Accuplacer Quan Score 265+ or NG Accuplacer Alg Score 235+
MATH 1580	Topics in Math	This course will examine selected topics of interest in Math. Offered on demand.	1-3	none
MATH 2457	Linear Algebra	This course covers systems of linear equations, matrices, determinants, vector spaces, linear transformations, eigenvalues and eigenvectors. MnTC Goal 4	3	MATH 1477 or MATH 1480
MATH 2458	Multivariable Calculus	This course covers vectors, dot and cross products, surfaces; vector-valued functions and curves; functions of several variables, partial and directional derivatives, double and triple integration, line and surface integrals; and applications to extrema, area, volume, moments, and centroids. MnTC Goal 4	4	MATH 1477 or MATH 1480
MATH 2459	Differential Equations	This course covers existence and uniqueness theorem; ordinary first order differential equations, linear equations of higher orders, and initial value problems; systems of differential equations, LaPlace transforms, and power series methods applications. MnTC Goal 4	4	MATH 1477 or MATH 1480
MEDA 1100	Body Structure and Function I	This course is an introduction to the structure and function of the human body from its chemical structure to the organization of the whole body. Focus will be on the study of each individual organ system and the interaction of each system with the rest of the body. Understanding the medical terminology related to the human body is important. The body systems that will be studied include the integumentary, skeletal, muscular, nervous, sensory, and endocrine systems. Such knowledge is basic to understanding common disease processes. Causes, signs and symptoms of various diseases related to each body system will be studied.	3	none
MEDA 1105	Body Structure and Function II	This course is a continuation of Body Structure and Function I. It will cover the circulatory, lymphatic, respiratory, digestive, urinary and reproductive systems, including the interaction of each system with the rest of the body. Such knowledge is basic to understanding common disease processes. Causes, signs and symptoms of various diseases related to each body systems will be studied.	3	MEDA 1100
MEDA 1110	Clinical Procedures I	This course will cover the fundamentals of medical assisting, including medical asepsis, the physical examination, federal regulations, emergencies, patient assessment including vital signs, and documentation skills. Students will learn how to obtain appropriate patient medical information through effective communication.	3	CPR certificate
MEDA 1115	Clinical Procedures II	This course covers clinical duties that are performed by the medical assistant. Emphasis will be on assisting with ambulatory surgery, assisting with specialty examinations, medication administration, providing patient education, assisting in primary care areas of family practice, internal medicine and obstetrics and gynecology. Students will learn how to obtain appropriate information through effective communication.	3	MEDA 1110
MEDA 1120	Laboratory Techniques I	This course will focus on safety and regulations in the medical laboratory, introduction to the laboratory, special laboratory tests and urinalysis testing. Students will be responsible for obtaining specimens, testing, and learning to prepare specimens to be sent to an independent laboratory. It is important for medical assistants to be qualified to perform laboratory procedures accurately.	3	none

MEDA 1125	Laboratory Techniques II	This course builds on laboratory skills learned from Laboratory Techniques I. Emphasis will focus on basic microbiology, including setting up slides for microscopic analysis of urine and blood, streaking culture plates, performing complete hematology tests. Students will be responsible for obtaining specimens, testing, and learning to prepare specimens to be sent to an independent laboratory. It is important for medical assistants to be qualified to perform laboratory procedures accurately.	3	MEDA 1120
MEDA 1128	Medical Terminology	This course teaches students to recognize and build medical terms after learning the meaning of word parts. The course is based on a systems approach.	1	none
MEDA 1130	Ethics and Issues	This course will cover legal and ethical issues as they relate to the medical field. The importance of legal knowledge to medical office personnel, standard of care, HIPPA, negligence, malpractice, and informed consent represent some of the topics that will be discussed.	2	none
MEDA 1132	Phlebotomy	This course will cover the collection of patient blood specimens and processing for testing. Various methods of collection will be taught and practiced. Students will be expected to participate both as a phlebotomist and as a patient. Difficult draws, adverse reactions and pediatric patients will also be discussed and simulated. The specimens collected will be handled and processed according to laboratory standards for accurate testing.	2	Concurrent enrollment with MEDA 1110 and MEDA 1120
MEDA 1134	Phlebotomy Technician Internship	This course will provide on-the-job experience to students. The students will be assigned to work in a hospital or clinical laboratory for a total of 135 clock hours. The students will work under the supervision of laboratory personnel doing tasks related to the student's program curriculum.	1-6	consent of instructor
MEDA 1135	Administrative Procedures I	This course covers administrative duties that are performed by the medical assistant. Emphasis will be on understanding the facility environment, computers in the ambulatory care setting, telecommunications, patient scheduling, medical records management, written communications, and medical documents, including electronic medical records.	3	none
MEDA 1137	Administrative Procedures II	This course is a continuation of the Administrative Procedures I duties that are performed by the medical assistant. Emphasis will be on understanding medical insurance and necessary coding for billing, daily financial practices, billing and collections, accounting practices, and the role of the medical assistant as an office and human resources manager.	2	MEDA 1135
MEDA 1141	Disease Conditions	The study of human diseases is important to understanding a variety of topics in the healthcare field. Diseases can range from mild to severe and may be acute or chronic. Some diseases affect one part of the body, a specific body system, or several body systems at the same time. There are many factors that predispose the body to a disease process. Some factors can be controlled, but some are related to heredity. Diseases are diagnosed by health care providers using various techniques and tests.	2	none
MEDA 1142	Pharmacology	This course develops the students' awareness of basic pharmacological concepts. It covers drug laws, standards and safe medication administration. Students learn about the actions of medications in the body; i.e., absorption, biotransformation, metabolism, and excretion. The various classifications of medications are discussed, along with how to use medication references.	2	none
MEDA 2150	Medical Assistant Internship	This course will provide on-the-job experience to students. The students will be assigned to work in a physician's office for a total of 225 clock hours. The students will work under the supervision of clinic and clinic office personnel doing tasks related to the student's program curriculum. The students will be required to attend an eight hour in class review day in July to review what they learned on their internships and to prepare for either the CMA or RMA National Certification Exams.	1-6	instructor's consent
MUSC 1403	American Popular Music	From its beginnings in the blues, to modern rock and popular music, this course will study characteristics of the music and the artists who create it. From class lectures, demonstrations and listening examples, students will demonstrate the ability to identify and describe musical examples. Each student will demonstrate knowledge of the diverse cultural backgrounds represented by the musical examples. MnTC Goals 6 and 7	3	NG Accuplacer Reading Score 237+
MUSC 1405	Central Lakes Jazz Orchestra	This performing ensemble encompasses age levels from high school to adult and musicianship levels from intermediate to expert in a Jazz Big Band setting. The ensemble prepares and performs traditional and contemporary Jazz literature in public performance with one concert per semester and other public performances as opportunities present. This course is repeatable. MnTC Goal 6	0-1	none
MUSC 1408	Central Lakes Wind Symphony	This performing ensemble encompasses age levels from high school to adult and musicianship levels from intermediate to expert in a classical symphonic band setting. The ensemble prepares and performs traditional and contemporary band literature in public performance with one concert per semester. This course is repeatable. MnTC Goal 6	0-1	none
MUSC 1415	Brass Ensemble	This performing ensemble encompasses age levels from high school to adult and musicianship levels from intermediate to expert in a brass ensemble setting. The ensemble prepares and performs traditional and contemporary brass ensemble literature in public performance with one concert per year plus public performances in varying venues as opportunities arise. This course is repeatable. MnTC Goal 6	0-1	none
MUSC 1418	Woodwind Ensemble	This performing ensemble encompasses age levels from high school to adult and musicianship levels from intermediate to expert in a woodwind ensemble setting. The ensemble prepares and performs traditional and contemporary woodwind ensemble literature in public performance with one concert per year plus public performances in varying venues as opportunities arise. This courses is repeatble. MnTC Goal 6	0-1	none
MUSC 1419	Percussion Ensemble	This performing ensemble encompasses age levels from high school to adult and musicianship levels from intermediate to expert in a percussion ensemble setting. The ensemble prepares and performs traditional and contemporary percussion ensemble literature in public performance with one concert per year in addition to public performances in varying venues as opportunities arise. This course is repeatable. MnTC Goal 6	1	none
MUSC 1420	String Orchestra	This performing ensemble encompasses age levels from high school to adult and musicianship levels from intermediate to expert in a string ensemble setting. The ensemble prepares and performs traditional and contemporary string ensemble literature in public performance with one concert per year plus public performances in varying venues as opportunities arise. This course is repeatable. MnTC Goal 6	0-1	Intermediate to advanced level skills on string instruments are required for participation in this ensemble.
MUSC 1421	Cantare' Concert Chorale	Cantare Concert Chorale is a mixed choral group that rehearses and performs diverse styles of music such as classical, jazz, multicultural, musical theater, and more. Achieving vocal excellence and choral blend, collaborative group participation, successful and inspiring concert performances, and a love for singing are the objectives of this course. This course is repeatable. MnTC Goal 6	1	none

MUSC 1431	CLC Choir	Central Lakes College Choir is open to all students, regardless of prior vocal experience; there is no audition required. CLC Choir is a mixed choral ensemble that rehearses and performs various styles of choral music such as Classic Choral repertoire, Jazz, American Pop, Multicultural, Spirituals, Folk Songs, Musical Theater, Rock-n-Roll, Chamber Music, Madrigals, and many more. Achieving vocal excellence and choral blend, productive group rehearsals, and participation in one or more public performances per semester are the objectives of this course. Along with public performances, being a member of the CLC Choir will also allow opportunities to participate in local and state-wide choral festivals and on-campus special events; collaborate with other CLC clubs and organizations (such as the Audio Recording Club); and perform for community-based events (such as Arts in the Park programs, area music festivals, and benefit concerts). This course is repeatable. MnTC Goal 6	1	none
MUSC 1441	Applied Music Lessons - Guitar	These courses provides 30 minute private lessons with the instructor once a week covering basic music knowledge and performing skills on the medium specified (brass, woodwind, instrumental, piano, voice, guitar). Skills and literature will be specific to the instrument and individual level of the student. One studio recital performance per semester. This course is repeatable. MnTC Goal 6	1	none
MUSC 1450	Music in World Cultures	This course will study the music of different cultures in the context of human life. Students will be introduced to the music and customs of diverse cultures such as African, Latin, Bosnian, Indian, and many others. Class activities will include music listening and playing of multicultural instruments, guest speakers and performers, and other projects that enhance the ethno musicological awareness of the many differences and similarities of non-Western and Western hemisphere indigenous cultures. MnTC Goals 6 and 8	3	NG Accuplacer Reading Score 237+
MUSC 1452	Intro to Music Industry	This class focuses on the study of the music industry including music in the marketplace, songwriting, publishing, copywriting, licensing, merchandizing, recording, music management, agents, unions and guilds, television, radio and career development. In addition, it focuses on the ethical questions inherent in each of these areas such as intellectual property rights, (illegal downloading) artistic responsibility (effects of content on listeners), artistic restrictions, (Wal-Mart effect, censorship), industry monopolies (Clear Channel Radio, corporate ownership of public media). MnTC Goals 6 and 9	3	NG Accuplacer Reading Score 237+
MUSC 1453	Music Production: Introduction to Pro Tools	This course leads students through an introduction to the audio software Pro tools, a comprehensive digital audio recording, editing and mixing software. The techniques studied are set in the context of giving voice to artistic expression through the medium of recorded sound. This course is also an introduction to the theory of sound and the recording process. The course introduces audio terminology, principles of sound and hearing, components of basic equipment, recorder operation, the direct input of Musical Instrument Digital Interface (MIDI), digital recording systems and editing, production planning, and the basic musical elements relevant to recording and the industry of audio. MnTC Goal 6	3	NG Accuplacer Reading Score 237+, and basic music reading and computer skills
MUSC 1454	Advanced Audio Production	This course is designed to teach students to use a wide range of audio recording equipment and techniques in both artistic and vocational settings. Whether it be mixing live sound at a concert, setting up microphones in a working studio, creating and editing audio tracks for broadcast, or designing a personalized home studio, students will expand the skills needed for entry level positions with the audio recording industry.	3	MUSC 1453
MUSC 1455	Voice Training	This course offers class instruction for the experienced and the inexperienced singer, covering the basic fundamentals of voice training, vocal building exercises and activities, and improving confidence in the student's vocal ability. Students will learn vocal health tips and become familiar with various vocal styles such as jazz, classic, pop, musical theater, and folk. This course also offers exposure to guest artists, one private vocal consultation with the instructor, and other vocal building activities. Students are not required to do solo performances, but there will be opportunities to do so throughout the semester. MnTC Goal 6	2	NG Accuplacer Reading Score 237+
MUSC 1457	Music Appreciation	This class will study and compare most types of comprehensive western music from classical to jazz and rock and roll. Students will learn the many differences and similarities of diverse styles of music through music listening, lectures, group activities, timeline projects, quizzes, guest performers, concerts, musical theater productions and other projects that enhance the understanding and appreciation of all kinds of music past and present. This course will ask the question, "Who, within humanity, is music for and what is its purpose." MnTC Goal 6	3	NG Accuplacer Reading Score 237+
MUSC 1459	Musicology	This course covers the basics of music theory, aural perception, and sight singing all in the context of primarily western music history. Emphasis is placed on rhythmic exercises, notation, tonality, phrase structure, simple form, fundamental harmony, and basic keyboard facility. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
MUSC 1464	Applied Music Lessons - Brass	These courses provide 30 minute private lessons with the instructor once a week covering basic music knowledge and performing skills on the medium specified (brass, woodwind, instrumental, piano, voice, guitar). Skills and literature will be specific to the instrument and individual level of the student. One studio recital performance per semester. This course is repeatable. MnTC Goal 6	1	none
MUSC 1468	Applied Music Lessons - Strings	These courses provide 30 minute private lessons with the instructor once a week covering basic music knowledge and performing skills on the medium specified (brass, woodwind, instrumental, piano, voice, guitar, strings) in this case Strings-specifically meaning Violin, Viola, Cello. Skills and literature will be specific to the instrument and individual level of the student. One studio recital performance per semester. This course is repeatable. MnTC Goal 6	1	none
MUSC 1475	Applied Music Lessons - Woodwind	These courses provide 30 minute private lessons with the instructor once a week covering basic music knowledge and performing skills on the medium specified (brass, woodwind, instrumental, piano, voice, guitar). Skills and literature will be specific to the instrument and individual level of the student. One studio recital performance per semester. This course is repeatable. MnTC Goal 6	1	none
MUSC 1477	Applied Music Lessons - Bass Guitar	These courses provide 30 minute private lessons with the instructor once a week covering basic music knowledge and performing skills on the medium specified. Skills and literature will be specific to the instrument and individual level of the student. One studio recital performance per semester. This course is repeatable. MnTC Goal 6	1	none
MUSC 1481	Applied Music Lessons - Piano	These course provides 30 minute private lessons with the instructor once a week covering basic music knowledge and performing skills on the medium specified (brass, woodwind, instrumental, piano, voice, guitar). Skills and literature will be specific to the instrument and individual level of the student. One studio recital performance per semester. This course is repeatable. MnTC Goal 6	1	none
MUSC 1485	Applied Music Lessons - Percussion	These courses provide 30 minute private lessons with the instructor once a week covering basic music knowledge and performing skills on the medium specified (brass, woodwind, instrumental, piano, voice, guitar). Skills and literature will be specific to the instrument and individual level of the student. One studio recital performance per semester. This course is repeatable. MnTC Goal 6	1	none

MUSC 1491	Applied Music Lessons - Voice	These courses provide 30 minute private lessons with the instructor once a week covering basic music knowledge and performing skills on the medium specified (brass, woodwind, instrumental, piano, voice, guitar). Skills and literature will be specific to the instrument and individual level of the student. One studio recital performance per semester. This course is repeatable. MnTC Goal 6	1	none
MUSC 2401	Evolution of Jazz	This course is a survey of the history of Jazz from its roots to today including musical styles, musicians, historical and social contexts of the various styles and times. Included in this are pre-jazz elements, New Orleans Dixieland, Chicago Dixieland, Swing, Bop, Cool, Hard Bop, Free Jazz, Fusion and Avant-Garde and the present day manifestations of these styles, the social, racial and historical relations between the music and the times. MnTC Goals 6 and 7	3	NG Accuplacer Reading Score 237+
MUSC 2580	Topics in Music	This course will examine selected topics of interest in Music. Offered on demand.	1-3	none
NATR 1106	Intro to Natural Resources Law Enforcement	This course will cover the role that law enforcement plays in managing natural resources, as well as basic field equipment (i.e., binoculars, spotting scopes, blinds, etc.) used in the process. Discussions will be held with local conservation officers to learn about their jobs and the roles they play within the Natural Resources community. Ethical considerations to prevent harm to the individual animal and still have a quality viewing experience will also be covered.	2	none
NATR 1112	Land Measurement	This course develops skills in legal descriptions, pacing, and chaining, using compasses, maps, aerial photos, and connects to our Introduction to GPS/GIS class. It involves field-work each week to develop these skills and includes learning to read and write legal descriptions from plat maps, as well as learning to use topographic maps, aerial photos, and creating maps, both by hand and computer. Differential leveling using old style transits are discussed, demonstrated and practiced along with chaining techniques used in measuring parcels of land. With the transit, learning to read the leveling rod as well as the horizontal and vertical verniers are also a part of this process. Some plot work that ties in with dendrology, plant taxonomy and other classes may also be done to help the students further develop their skills in compassing pacing and reading legal descriptions, as well as their overall understanding as to how all of this relates to any particular Natural Resource occupation.	3	none
NATR 1115	Plant Taxonomy	This course involves learning to identify vascular plants as well as develop an understanding for their morphology through dissection. The course will discuss botanical nomenclature, vegetative terminology, botanical descriptions, collecting and preserving, and a survey of vascular plant families. We will also discuss the use of keys.	2	none
NATR 1120	Dendrology	The course focus is on the characteristic features of trees and shrubs and the purpose of these features. Students will be able to readily identify 60 to 70 species of trees and shrubs by Latin (family, genus and species) and Common names found within the U.S. They will learn to use various keys to identify trees and shrubs with. Key features for study will include: leaves, twigs, buds, flowers, fruit, stem and bark. Most of our studies will be of trees in Minnesota, and the Eastern U.S. However, we will discuss Southern and Western species as well.	3	none
NATR 1125	Ichthyology	This course will review the biology, ecology, and identification of fish, with special emphasis on Minnesota fish. Students will explore taxonomy and evolutionary relationships of fish, anatomy and physiology, life history, diversity, behavior, and ecology of fish. Lab sessions will introduce students to the more than 150 species of fish native to Minnesota with emphasis on taxonomy and identification.	3	none
NATR 1130	Mammalogy	This course covers the identification and biology of mammals. Students learn taxonomic relationships, evolution, basic anatomy and life history. Labs focus on identification by pelage and skull characteristics, age and sex criteria, and small mammal trapping and handling.	3	none
NATR 1135	Ornithology	This course covers the identification, biology, and ecology of birds in Minnesota. Students will learn basic anatomy and life history, as well as family and species characteristics and songs. Labs emphasize identification of Minnesota birds.	3	none
NATR 1140	Limnology	This course develops basic knowledge in the study of freshwater systems. It discusses the physical, chemical and biological characteristics of streams and lakes; as well as the influence of water in our environment and the ecology related to organisms and ecosystems through which it flows. The importance of aquatic productivity is also considered.	3	none
NATR 1150	Aquatic Invertebrate Ecology	This course will review the taxonomy, diversity and life histories of aquatic macro-invertebrates in the upper Midwest. Ecological relationships of aquatic invertebrates with water quality and fisheries will also be investigated. Measures and metrics for determining the health of macro-invertebrate communities and ecological health will be covered.	3	none
NATR 1152	Field Methods in Freshwater Studies	This course will place students directly in the field collecting and interpreting aquatic data. Through this course, students may collect water samples, inventory aquatic vegetation, assess aquatic invertebrate communities, or map watersheds. Students will also work with cooperating agencies, lake associations, or LUGs to schedule sampling, present results, or provide other elements of customer service.	2	NATR 1140 or NATR 1150 or NATR 1125
NATR 1200	Introduction to Natural Resources	Students will develop an holistic awareness of our Natural Resources. Includes information in Forestry, Fisheries, Wildlife and Parks & Recreation, as well as Soils and Water. Ideas and attitudes that revolve around Conservation and Preservation and their historical background are discussed, and each area of resource concern is followed up with careers in that particular field often with guest speakers that work in those areas or students that have participated in summer internships.	3	none
NATR 1280	Introduction to GPS & GIS	The objective of this class is to provide students with an introductory understanding of GIS software (ArcGIS 10.0) and GPS technology. The main emphasis will be on learning practical applications for the software. Lectures will provide examples of GIS techniques, how the processes work and the applications for which they may be used. The laboratory will provide hands-on training to learn various GIS processes which will focus on collecting, organizing, managing, analyzing, and presenting spatial data.	2	none
NATR 1300	Summer Field Experience	This course is a trip type of experience mainly for Natural Resource Students and Environmental Science Students. It involves presentations from DNR personnel and other agencies as well as camping, canoeing and backpacking at various locations from Mille Lacs Kathio to Lake Superior, and the BWCA from Ely to Grand Maris.	3	none
NATR 1302	Fall Field Experience	This is an elective course mainly for students in the Natural Resources program, but is open to other students. The course will involve chainsaw safety and certification, along with 10 hours of service learning/natural resource work. Six hours will be through The Nature Conservancy and the other four hours will be during a camping trip to Itasca State Park. The service learning work will include trail maintenance, fire prevention, seed collection, budcapping, and plant survival checks.	1	none

NATR 1305	Winter Field Experience	This course helps the student develop an understanding for working outdoors in adverse conditions; and the importance of working as a team. It develops an understanding for hypothermia and knowledge of winter first aid. The course discusses preparing for and spending a night out in the field; going over equipment, clothing, food and water, and how to pack and pull a sled. And – most important – having a good time and enjoying the Winter Environment.	1	none
NATR 1310	Internship	This course is designed to provide students with an opportunity to work on a full time basis in some aspect of environmental management.	1-8	none
NATR 1315	Basic Wildland Fire S-130, S-190	This course is a combination of the S-130, S-190 Basic Firefighter training taught by the DNR and U.S. Forest Service personnel. It is a federal course that all wildland fire fighters must take to be hired on fire crews. It includes basic fire weather, fire equipment, and basic fire suppression tactics. Students completing the class will receive a federal certificate to allow them to be hired on various fire crews.	2	none
NATR 1340	Special Project	This course is designed so the student can put into practical use the various skills and knowledge gained in other course work. The course is independent study with no formal class hours.	1-4	none
NATR 1341	Seminar	This course will introduce students to the variety of disciplines and topics included in natural resource management through weekly presentations, field trips, readings, multimedia, and active discussions. Students will also explore elements of communicating effectively in groups using oral, written, and multimedia presentations and will create their own presentations.	1	none
NATR 1350	Independent Study	This student-generated course is an opportunity to study particular areas of interest not covered in the general curriculum.	1-4	none
NATR 1360	Animal Behavior	This course covers interspecific and intraspecific dynamics that allow animals to be successful in a natural world. This information is critical in making animal observations and interpreting what you see in order to understand the well-being of the animal.	3	none
NATR 2110	Herpetology	This course is an introductory class in Herpetology, that covers classification, and characteristics of amphibians and Reptiles, that include the different kinds frogs, salamanders, turtles, lizards, and snakes. Discussion of the species of Minnesota is an important aspect of this course, but many other species are included as well.	2	none
NATR 2120	Wetland Ecology	This course covers the biological, physical, and chemical interactions in wetlands. It includes delineation, classification systems, and plant and animal identification.	3	BIOL 2416, NATR 1140
NATR 2130	Wildlife Management	The course covers the biological principles that form the basis of current wildlife management, management techniques, and societal factors affecting management decisions. Topics include population dynamics, management techniques, non-game and endangered wildlife, and conservation biology.	3	none
NATR 2140	Fisheries Management	This course covers the basic concepts of modern fisheries management with special emphasis on aquatic ecology, watershed and habitat management, exotic species, and laws and regulations. Also included in laboratory activities are principles of fisheries population dynamics and management, with special emphasis on population estimation, age and growth analysis, mortality estimation, and recruitment and yield.	3	NATR 1125, NATR 1140
NATR 2155	Soil Science	The course is designed to give students an awareness of soil characteristics and techniques to evaluate physical and chemical properties. Practical uses of soil information and soil conservation techniques will be emphasized. Physical and chemical analysis, soil survey techniques and soil conservation practices are included in the lab.	3	none
NATR 2160	Watershed Management	This course will review the role watersheds play in water quality in lakes and rivers. The effects of land use practices, hydrology, infrastructure development, and development will all be explored. The roles various governmental units play in the watershed will also be investigated. Students will utilize GIS and GPS applications in exploring watershed influences in lab activities.	3	NATR 1280
NATR 2161	Ecosystem Management	This course is designed to assess the ecological and social factors of ecosystem management. Students will prepare a management plan after collecting ecosystem data and resolving conflicting objectives.	2	NATR 1140, NATR 1200, NATR 2120
NATR 2170	Advanced GPS/GIS	The objective of this class is to provide you with an advanced understanding of GIS software (ArcGIS 9.3) and GPS technology. The main emphasis will be on learning practical applications for the software. Lectures will provide examples of GIS techniques, how the processes work and for what applications they may be used. The laboratory will provide hands-on training to learn various GIS processes which will focus on collecting, organizing, managing, analyzing, and presenting spatial data.	2	NATR 1280
NATR 2201	Introduction to Parks & Interpretation	This is a holistic course on the importance of parks and outdoor recreation. It will discuss the basic areas of management such as natural resources, people, facilities, law enforcement, and finances. It will also touch on topics such as the foundation of outdoor recreation, psychology and the natural environment, the social aspects and economics of outdoor pursuits, and federal, state and local management policies and agencies. The course will also cover various curricula available for the naturalist (Project Wild, Project Wild Aquatic, Project Learning Tree, and Nature Scope). The class will visit or have a presentation by local park managers to see and discuss how they are used by the public. The student will prepare and teach selected topics with the class and with elementary students in the area..	2	NATR 1200
NATR 2235	Silviculture & Forest Management	This course is a combination of lecture and lab designed to familiarize students with basic silvicultural techniques and forest management considerations needed to take care of today's forests. Topics include cultural techniques used in harvesting, thinning, TSI (Timber Stand Improvement) and regeneration. Management considerations for wildlife, watershed, and recreation will be discussed as well. Other topics of discussion will include yearly management and allowable cut information.	3	NATR 1120, NATR 1112
NATR 2321	Ecological Classification of Native Plant Communities	This course will train students in the use of soils and herbaceous vegetation to identify native plant communities for use in land management, surveying, or research. Extensive field trips will be taken throughout the course to identify different plant communities across Minnesota and investigate the ecological succession of these communities. Students will also use the natural history of native plant communities to develop forest management guidelines.	2	NATR 2155 and NATR 1115
NURS 1540	Professional Nursing Fundamentals	Professional Nursing Fundamentals provides an introduction to the theoretical foundation for client assessment and nursing skills. An introduction to the nursing process provides the student with a beginning framework for decision making. The key concepts of client-centered care, teamwork and collaboration, evidence based practice, quality improvement, safety and informatics, professional identity / behavior, nursing judgment, managing care of the individual client are introduced. Basic pathophysiology will include nutrition, elimination, sensory perception, mobility, sexual health, sleep and rest, skin integrity, oxygenation, circulation, and fluid electrolyte balance. Application of the content will be made in Professional Nursing Fundamentals Lab.	3	Admission to Nursing Program

NURS 1541	Professional Nursing Fundamentals Lab	This course is designed to allow for the application of concepts learned in the Fundamentals Course. Fundamental RN skills will be taught and evaluated in a realistic, simulated learning environment with an emphasis on the application of the nursing process and use of evidenced-based practices that promote client safety and quality in the performance of nursing psychomotor skills. The goal is to provide exposure to situations that will promote confidence and the ability to provide safe, quality, client-centered care in the clinical setting as the student begins their journey in the RN role. This course focuses on hands on application of nursing clinical reasoning and nursing psychomotor skills.	2	Admission to Nursing Program
NURS 1542	Medication Administration Concepts	This course offers a basic review of math and dimensional analysis as applied by health care professionals. Topics include the metric system, preparation of solutions, pediatric dosage, intravenous solutions, and advanced intravenous titration of medications. Application will be made through subsequent nursing courses.	1	Admission to Nursing Program
NURS 1544	Professional Nursing Concepts I	The beginning course in a three-semester sequence which emphasizes use of the nursing process and nursing judgment to assess, plan, and implement nursing interventions to promote safe, quality care and human flourishing for individuals, families and groups experiencing alterations in physiological, psychosocial, sociocultural, spiritual and developmental integrity. Teaching and learning principles for providing education to prevent, preserve, and restore health and human flourishing are integrated. Content includes caring for clients across the lifespan. This course focuses on the pathophysiology and RN role for the following: Nursing Process, Teaching and Learning, QSEN, Evidence Based Practice, Pharmacology, Pediatrics, Gerontology, Surgical Nursing and Musculoskeletal System.	4	NURS 1540, NURS 1541, and NURS 1542 or NURS 2522
NURS 1545	Professional Nursing Practicum I	The first course in a three-semester clinical sequence that focuses on application of the nursing process, including assessment, planning, intervention, and evaluation with adults experiencing chronic illness. Clinical application of communication skills, teaching and learning principles, and various nursing psychomotor skills is emphasized in order to provide safe, quality client-centered care and promote human flourishing. The clinical site will be in a long-term care setting.	2	NURS 1540, NURS 1541, and NURS 1542 or NURS 2522
NURS 1547	Professional Nursing Role Transition	This course is designed to build on concepts, clinical reasoning and skills attained in a Practical Nursing Program. Content includes scope of practice, nursing process, assessment, communications skills, critical thinking and nursing judgment, and the educator role. Selected nursing psychomotor skills will be reviewed with an emphasis on the application of the nursing process and use of evidenced-based practices that promote patient safety and quality in the performance of psychomotor skills. Content will also include gerontology, pediatrics, surgical nursing, and musculoskeletal system. This course focuses on application of clinical reasoning and psychomotor skills through quizzes, worksheets, exams, videos, and audio presentations.	4	Acceptance into Advanced Standing Nursing Program
NURS 2500	Professional Nursing Leadership	This course examines the complexity and nursing judgment required of the professional nursing role. The course focuses on leadership and management, delegation and supervision, teaching, ethical and legal concepts and the use of informatics in the provision of evidenced-based nursing practice, and the processes of critical thinking and synthesis. This course focuses on the many roles of the professional nurse and builds on all previously learned concepts as the student develops their own art and science of nursing and professional identity. Current trends and issues in nursing will be researched and shared.	2	NURS 2501, NURS 2513, NURS 2520
NURS 2501	Professional Nursing Concepts Through the Lifespan I	This is the beginning course in a two-semester sequence which emphasizes the use of the nursing process and nursing judgment to assess, plan, and implement nursing interventions to promote safe, quality care and human flourishing for individuals, families, and groups experiencing alterations in physiological, psychosocial, sociocultural, spiritual, and developmental integrity. Concepts related to surgical nursing, teaching/learning needs in the RN role in providing education to prevent, preserve, and restore health, and human flourishing are integrated. Content includes caring for clients across the lifespan. This course focuses on the pathophysiology and RN role for the following concepts: Nursing Process, Teaching and Learning, Pharmacology, Nutritional-Metabolic Pattern: Fluid and Electrolytes, Elimination Pattern: Renal and Urinary Tract Function, Activity-Exercise Pattern: Cardiovascular, Circulatory and Hematological Function, Activity-Exercise Pattern: Gas Exchange and Respiratory Function, and Normal and High Risk Ante/Intra/Postpartum and Newborn Care.	6	admission to ADN Program
NURS 2502	Professional Nursing Concepts Through the Lifespan II	This is the second course in a two-semester sequence in which complexity, application of knowledge, and evidence-based practice will be emphasized. There will be continued focus on use of the nursing process and nursing judgment to assess, plan, and implement nursing interventions to promote safe, quality, patient-centered care and human flourishing for individuals, families, and groups experiencing alterations in physiological, psychosocial, sociocultural, spiritual, and developmental integrity. Concepts related to teaching/learning needs in the RN role in providing education to prevent, preserve, and restore health and human flourishing are integrated. Content includes caring for clients across the lifespan. This course focuses on the pathophysiology and RN role for the following concepts: Cognitive-Perceptual Pattern: Mental Health, Pediatrics, Nutritional-Metabolic Pattern: Immunologic Function, Nutritional-Metabolic Pattern: Oncology, Nutritional-Metabolic Pattern: Endocrine Function, Cognitive-Perceptual Pattern: Neurologic Function, Nutritional-Metabolic Pattern Skin/Integrity: Integumentary, Cognitive-Perceptual Pattern: Sensorineural Function, Nutritional-Metabolic Pattern: Digestive and Gastrointestinal Function, Nutritional-Metabolic Pattern: Metabolic Function, and Activity-Exercise Pattern: Musculoskeletal.	6	NURS 2501, NURS 2513, NURS 2518, NURS 2519
NURS 2513	Professional Nursing Practicum I	This course is the clinical lab component that focuses on the use of nursing judgment, evidenced-based practice, and informatics in the application of the nursing process, including assessment, planning, intervention, and evaluation with individuals across the lifespan experiencing acute and chronic illness in order to provide safe, quality, patient-centered care and promote human flourishing. Clinical sites may include acute and long term care settings, clinics, and/or various community service agencies. Satisfactory/Unsatisfactory grading.	3	admission to AND Program
NURS 2514	Professional Nursing Practicum II	This course is the clinical lab component that focuses on integration of knowledge, skills, and theoretical principles, with continued emphasis on the use of nursing judgment, evidenced-based practice, and informatics in the application of the nursing process while caring for individuals across the lifespan experiencing acute and chronic illness and families experiencing childbearing in order to provide safe, quality, patient-centered care and promote human flourishing. Additional course emphasis includes the application of leadership skills, including prioritization, delegation, supervision, and the management components necessary to promote professional development and a spirit of inquiry in the transition to the graduate AD registered nursing role. Clinical sites may include acute care settings, clinics, and/or various community service agencies. Satisfactory/Unsatisfactory grading.	3	NURS 2501, NURS 2513, NURS 2518, NURS 2519

NURS 2518	Clinical Reasoning & Skills Lecture	This course is designed to build on concepts, clinical reasoning and skills attained in a Practical Nursing curriculum. Role differences between the LPN and RN, including scope of practice, advanced communications skills, critical thinking and nursing judgment, educator role, and nursing leadership and management skills are integrated. This course focuses on application of clinical reasoning and psychomotor skills through quizzes, worksheets, exams, videos, and audio PowerPoints. The theoretical concepts taught in this course will be applied in NURS 2519.	1	admission to ADN Program
NURS 2519	Clinical Reasoning & Skills Lab	This course is designed to build on concepts, clinical reasoning and psychomotor skills attained in a Practical Nursing curriculum. Role differences between the LPN and RN, including scope of practice, advanced communications skills, critical thinking, educator role, and nursing leadership and management skills are integrated. Students entering the course will have basic nursing competencies upon which this course will build. Selected RN psychomotor skills will be taught and evaluated in a realistic, simulated learning environment with an emphasis on the application of the nursing process and use of evidenced-based practices that promote patient safety and quality in the performance of psychomotor skills. The goal is to provide exposure to actual clinical situations that will promote confidence and the ability to provide safe, quality, patient-centered care in the clinical setting as the student transitions to the RN role. This course focuses on hands on application of clinical reasoning and skills through skills test out and simulation. Pass/Fail Grading.	1	admission to ADN Program
NURS 2520	Concepts in Role Transition for the Professional Nurse	This course is designed to build on concepts, clinical reasoning and skills attained in a Practical Nursing curriculum. Role differences between the LPN and RN, including scope of practice, advanced communications skills, critical thinking and nursing judgment, educator role, and nursing leadership and management skills are integrated. Selected RN psychomotor skills will be taught and evaluated in a realistic, simulated learning environment with an emphasis on the application of the nursing process and use of evidenced-based practices that promote patient safety and quality in the performance of psychomotor skills. The goal is to provide exposure to actual clinical situations that will promote confidence and the ability to provide safe, quality, patient-centered care in the clinical setting as the student transitions to the RN role. This course focuses on hands-on applications of clinical reasoning and psychomotor skills through quizzes, worksheets, exams, videos, audio power points, skills test out and simulation.	1	admission to ADN Program
NURS 2522	Medication Admin Concepts	This course offers a basic review of math and dimensional analysis as applied by healthcare professionals. Topics include the metric system, preparation of solutions, pediatric dosage, I.V. solutions, and advanced I.V. titration of medications. Application will be made through subsequent nursing courses.	1	admission to ADN Program, PNUR 1134 or PNUR 1140 or LPN license
NURS 2525	AD Progression Proficiency	This course is designed for students needing AD Nursing course work remediation to meet proficiency expectations for program re-admission and progression. This includes all topic content from NURS 2501, NURS 2518, and NURS 2519. It is expected that the student will prepare and remediate independently all of the topics and skills prior to testing out. To successfully pass this course, the student must complete all unit exams, receive 80% on NURS 2501 final exam and pass all skills proficiency testing at a satisfactory level.	1	admission to ADN Program
NURS 2540	Professional Nursing Concepts II	The second course in a three-semester sequence which emphasizes use of the nursing process and nursing judgment to assess, plan, and implement nursing interventions to promote safe, quality care and human flourishing for individuals, families and groups experiencing alterations in physiological, psychosocial, sociocultural, spiritual, and developmental integrity. Teaching and learning principles for providing education to prevent, preserve, and restore health and human flourishing are integrated. Content includes caring for clients across the lifespan. This course focuses on the pathophysiology and RN role for the following concepts: Mental Health, Fluid and Electrolytes, Renal and Urinary Tract Function, Cardiovascular, Circulatory and Hematological Function, Normal/Intra/Postpartum and Newborn Care, and High Risk Ante/Intra/Postpartum and Newborn Care.	6	NURS 1544, NURS 1545
NURS 2541	Professional Nursing Practicum II	The second course in a three-semester clinical sequence that focuses on the use of nursing judgment, evidenced-based practice, and informatics in the application of the nursing process, including assessment, planning, intervention, and evaluation with individuals across the lifespan experiencing acute and chronic illness, and families experiencing childbearing. Clinical application of communication skills, teaching and learning principles, and various psychomotor skills is emphasized in order to provide safe, quality client-centered care. Clinical sites include acute care settings, as well as clinics and various community service agencies.	3	NURS 1544, NURS 1545
NURS 2542	Advanced Skills for the Professional Nurse	This course is designed to build on concepts, clinical reasoning, and skills attained in a fundamentals nursing courses or a Practical Nursing Program. Content includes application of RN roles including therapeutic communications skills, education, nursing judgment, clinical decision making, management of care, and leadership skills. Selected RN psychomotor skills will be taught and evaluated in a realistic, simulated learning environment with an emphasis on the application of the nursing process and use of evidenced-based practices that promote patient safety and quality in the performance of psychomotor skills. The goal is to provide exposure to actual clinical situations that will promote confidence and the ability to provide safe, quality, patient-centered care in the clinical setting as the student continues to develop and transition in the RN role. This course focuses on hands on application of clinical reasoning and psychomotor skills through quizzes, worksheets, exams, videos, audio PowerPoints, skills test-outs, and simulation.	1	NURS 1544, NURS 1545
NURS 2545	Professional Nursing Concepts III	The third course in a three-semester sequence in which complexity, application of knowledge and evidence-based practice will be emphasized. There will be continued focus on use of the nursing process and nursing judgment to assess, plan, and implement nursing interventions to promote safe, quality patient-centered care and human flourishing for individuals, families and groups experiencing alterations in physiological, psychosocial, sociocultural, spiritual, and developmental integrity. Teaching and learning principles for providing education to prevent, preserve, and restore health and human flourishing are integrated. Content includes caring for clients across the lifespan. This course focuses on the pathophysiology and RN role for the following concepts: Gas Exchange and Respiratory Function, Immunologic Function, Oncology, Endocrine Function, Neurologic Function, Integumentary, Sensorineural Function, Digestive, Gastrointestinal, and Hepatic and Reproductive Function.	6	NURS 2540, NURS 2541, NURS 2542

NURS 2546	Professional Nursing Practicum III	The third course in a three-semester clinical sequence that focuses on integration of knowledge, skills, and theory principles with continued emphasis on the use of nursing judgment, evidenced-based practice, and informatics in the application of the nursing process while caring for individuals across the lifespan experiencing acute and chronic illness. Clinical application of communication skills, teaching and learning principles, and various psychomotor skills is emphasized in order to provide and promote safe, quality client-centered care. Additional course emphasis includes applying leadership skills including prioritization, delegation, supervision, and management components necessary to promote professional development and quality improvement in the transition from Associate Degree Nursing Student to the Registered Nursing role. Clinical sites include acute care settings, as well as various rural health community service agencies.	3	NURS 2540, NURS 2541, NURS 2542
NURS 2547	Professional Nursing Leadership	This course examines the complexity and nursing judgment required of the professional nursing role and focuses on leadership and management, delegation and supervision, teaching, ethical and legal concepts and the use of informatics in the provision of evidenced-based nursing practice, and the processes of critical thinking and synthesis. This course focuses on the many roles of the professional nurse and builds on all previously learned concepts as the student develops their own art and science of nursing and professional identity. Current trends and issues in nursing will be researched and shared. Plan and initiate preparation for NCLEX RN.	2	NURS 2540, NURS 2541, NURS 2542
NSGA 1110	Nursing Assistant	The Nursing Assistant course introduces concepts of basic human needs, health/illness continuum and basic nursing skills. Skills are demonstrated and practiced in a supervised laboratory setting environment. This course also allows for practical application of skills developed and practiced in the nursing laboratory setting. Students will demonstrate learned skills under the supervision of their instructor in a nursing care setting. This course meets State and Federal requirements for placement on the State Registry. Students must complete with a grade of “C” or better to pass this course. Attendance is mandatory; no more than four hours may be missed.	3	none
NSGA 1115	Home Health Aide	This course introduces the skills and knowledge required of the Home Health Aide-Homemaker.	1	NSGA 1110
OSKL 1103	Topics in Occupational Skills	This course will examine selected topics of interest in Occupational Skills. On demand.	1-3	none
OSKL 1142	Communication I	Students are exposed to curriculum focusing on verbal, written and non-verbal communication skills utilized on the job and in the community. Topics covered include telephone skills, self advocacy skills, self esteem, understanding written schedules, manners and etiquette, and body language.	3	none
OSKL 1144	Critical Reasoning Skills I	Students learn about decision making and problem solving skills used in the workplace and in their personal life. Topics covered include accessing community services, personal safety and maintenance skills, responding to emergencies and workplace safety, budgeting/consumer skills and citizenship, nutrition and meal preparation. Students will also be required to participate in a minimum of 5 hours of Service Learning, as well as a student club or organization.	4	none
OSKL 1146	Critical Reasoning Skills II	Students learn about decision making and problem solving skills used in the workplace and in their personal life. Topics covered include: relationship choices and dynamics, Stress and anger management techniques, goal setting, time management and development of personal filing system. Students will also be required to participate in a minimum of 5 hours of Service Learning, as well as a student club or organization.	3	OSKL 1144
OSKL 1148	Employability Skills I	Students learn skills needed to seek and maintain entry-level competitive employment. Skills covered include: self advocacy skills at work, development of interpersonal skills with employer, co-workers and customers, adapting to the worksite and demonstrating personal accountability at the worksite and exploration of entry-level job opportunities to solidify job goals.	3	none
OSKL 1150	Employability Skills II	Students learn skills needed to find, secure and maintain employment. Topics covered include how to find employment, successful job application and interviews, and adapting to employer needs while maintaining the job. Students participate in job club at the end of the semester to assist with the job seeking process.	4	OSKL 1148
OSKL 1154	Supervised Pre-Internship I	This course utilizes a college or community worksite to perform job skills needed to maintain entry-level employment. Students will secure employment or participate in a paid or non-paid experience established by OSP department or employment secured by student with OSP department approval. Limited (1-2 days) job coaching is available for students enrolled in this course. Specific training goals are developed for each student with the employer based on student needs.	4	none
OSKL 1156	Supervised Pre-Internship II	This course utilizes a college or community worksite to build on the skills learned in Employability Skills I. This course utilizes a college or community worksite to perform job skills needed to maintain entry-level employment. Students will secure employment or participate in a paid or non-paid experience established by OSP department or employment secured by student with OSP department approval. Job coaching is available as needed for students enrolled in this course. Specific training goals are developed for each student with the employer based on student needs. Students work 12 hours per week.	4	none
OSKL 1162	Study Skills I	Students learn skills related to manage their time and improve organizational skills at the worksite and in the community. Skills taught include time management, personal planner usage, and using task lists. Students also work in groups with a tutor to clarify assignments given in other OSP courses.	1	none
OSKL 1164	Study Skills II	Students learn skills related to manage their time and improve organizational skills at the worksite and in the community. Skills taught include time management, personal planner usage, and using task lists. Students also work in groups with a tutor to clarify assignments given in other OSP courses.	1	OSKL 1162
OSKL 1166	Communication II	Students are exposed to experiences focusing on diversity, verbal, written, electronic and non-verbal communication skills utilized on the job and in the community.	3	OSKL 1142
OJIB 1401	Beginning Ojibwe I	This is an entry level Ojibwe language course. Emphasis will be placed on linguistics and phonetics to familiarize the student with the language. Graded level readings are used for comprehension and paired activities and role-play are implemented for beginning conversational interaction. Written and oral skills, non-linguistic aspects of the cultural background and surroundings are also explored. MnTC Goal 8	4	NG Accuplacer Reading Score 237+
OJIB 1402	Beginning Ojibwe II	This course is a continuation of OJIB 1401. Emphasis is placed on linguistics and phonetics to familiarize the student with the language. Graded level readings are used for comprehension and paired activities and role-play are implemented for conversational interaction. Written and oral skills, non-linguistic aspects of the cultural background and surroundings are also explored. MnTC Goal 8	4	OJIB 1401
OJIB 1598	Topics in Ojibwe	This course will examine selected topics of interest in Ojibwe studies. Offered on demand.	1-3	none

OJIB 2401	Intermediate Ojibwe I	This course is a continuation of OJIB 1402 and continues to develop Ojibwe language skills. Emphasis is on linguistics and phonetics. Cultural background and surroundings are explored. The second phase of the Ojibwe language sequence which adds a class of verbs to the existing vocabulary, builds speaking and listening skills with more complex sentences, and emphasizes translation from English to Ojibwe and Ojibwe to English. MnTC Goal 8	4	OJIB 1402
OJIB 2402	Intermediate Ojibwe II	This course is a continuation of OJIB 2401 and continues to develop Ojibwe language skills. Emphasis is on strengthening linguistics and phonetics. Cultural background and surroundings are explored. The last phase of the Ojibwe language sequence in the classroom which adds more advanced grammar to the existing vocabulary, builds on speaking and listening skills with more complex sentences, and continues to improve translation from English to Ojibwe and Ojibwe to English. MnTC Goal 8	4	OJIB 2401
OJIB 2500	Conversational Ojibwe	This course is designed to promote oral communication in the language. Grammar review and vocabulary building are structured to the needs of the students.	3	OJIB 2402
PHIL 1411	World Religions	This philosophy of religion course offers a comparative framework for understanding the diversity of beliefs found in the modern world. Major religious traditions such as Hinduism, Buddhism, Confucianism, Taoism, Judaism, Islam and Christianity are examined, with special attention paid to historical development, current practices and manifestations, and fundamental beliefs. MnTC Goals 6 and 8	3	NG Accuplacer Reading Score 237+
PHIL 1415	Philosophy and Popular Culture	This philosophy course will examine ways in which a variety of popular sources—films, novels, music, television—can offer insights into compelling philosophical questions such as the nature of knowledge, the meaning of reality, what it means to live ethically, and the meaning and possibilities of justice. Philosophical ideas and questions provide a pervasive underpinning for much of our popular culture. And, equally importantly, popular culture increasingly presents itself as the platform for shared discourse within our society and the world. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
PHIL 1417	Immortality and the Afterlife	This philosophy course examines concepts of the afterlife, personal survival and immortality from the perspectives of religion, philosophy and science. Examination of afterlife beliefs of major world religions will include detailed investigation of concepts of paradise, physical resurrection, reincarnation, and cosmic unity. Philosophical arguments for and against survival as well as analysis of theories of self and mind as seen from the perspectives of dualism, materialism, hypophenomenalism and functionalism will be examined in terms of their relationship to various types of survival; contemporary views derived from near death experiences, quantum physics and probability will also be considered. MnTC Goals 2 and 6	3	NG Accuplacer Reading Score 237+
PHIL 1421	Critical Thinking	This philosophy course helps students develop analytical and reasoning skills that will permit them to more effectively understand and discern the logical content of various types of persuasive communication, which will empower them to: 1) defend themselves from deceptive arguments and attempts to persuade, as well as 2) to more precisely clarify and evaluate their own thoughts, beliefs, values and goals. Students will learn about uses and misuses of language, common cognitive errors, recognition and formal analysis of good and bad arguments, and how to articulate and critically assess moral implications of claims. MnTC Goals 1 and 2	3	NG Accuplacer Reading Score 250+
PHIL 1422	Honors Critical Thinking	The Honors Critical Thinking philosophy course focuses on teaching skills needed for effective evaluation of belief, better decision-making, and precision communication. Course content is divided into three areas: (1) principles of informal logic; (2) psychological pitfalls that distort thought; and (3) uses and abuses of language. Students will learn to construct bias-free, sound, and cogent arguments. Emphasis will be on communication, presenting and defending arguments in class debate, short presentations, and a series of written assignments. Each semester will feature a class-determined investigative project dealing with a single topic such as, for example: the lures of pseudoscience, medical quackery, deception in advertising, and media and institutional bias. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. MnTC Goals 1 and 2	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
PHIL 1460	Logic	This philosophy course is an introduction to the basic concepts, principles, and methods of argument analysis and evaluation, including deductive and inductive reasoning, validity, soundness, truth tables, Aristotelian logic, Venn diagrams, indirect deductive proofs, and principles of induction. MnTC Goals 2 and 4	3	NG Accuplacer Reading Score 237+
PHIL 2410	Introduction to Philosophy	This is a first course in philosophy, explaining what it means to be a philosopher and to think philosophically about questions that aren't immediately answerable. Possible topics include the nature of reality, idealism, the difference between a priori and empirical knowledge, values, social philosophy, and the value of philosophy from any answers it may provide. MnTC Goals 2 and 6	3	NG Accuplacer Reading Score 237+
PHIL 2420	Ethics	This philosophy of ethics course will include discussion and analysis of what results when one attempts to think philosophically about questions of morality and value. This course will examine issues of moral motivation and responsibility, and explore an array of possible answers to questions of right and wrong, and good and bad by looking at classical and contemporary moral theories. It will involve responding through discussion forums, class activities, and writing assignments or tests. MnTC Goals 6 and 9	3	NG Accuplacer Reading Score 237+
PHIL 2421	Honors Ethics	The purpose of this philosophy course is to examine a variety of contemporary moral issues from a philosophical standpoint and to explore some of the many approaches and methods that can be used to clarify our thinking about these and other ethical issues, as well as to assist us in making reasoned moral judgments. MnTC Goals 6 and 9	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
PHIL 2422	Medical Ethics	This philosophy course examines moral issues arising in connection with medical practice, research, and emerging bio-technologies. Topics such as the right to healthcare, definition of health and illness, genetic counseling, bio-engineering, euthanasia, abortion, contraception, surrogate motherhood, codes of professional conduct, and allocation of scarce medical resources will be discussed within the framework of classic and contemporary ethical theories. MnTC Goals 6 and 9	3	NG Accuplacer Reading Score 250+
PHIL 2430	Contemporary Moral Problems	The purpose of this philosophy course is to examine a variety of contemporary moral issues from a philosophical standpoint and to explore some of the many approaches and methods that can be used to clarify our thinking about these and other issues, as well as to assist us in making reasoned moral judgments. MnTC Goals 6 and 9	3	NG Accuplacer Reading Score 237+
PHED 1502	Circuit Training	This is a course designed to develop cardio-respiratory endurance, flexibility, muscle endurance and muscle strength. A circuit of selected weight machines and aerobic stations will be used. It allows each individual an appropriate starting point and rate of progression.	2	none

PHED 1505	Fitness Walking	This course emphasizes the basics of fitness and conditioning with regard to cardio fitness. Students will begin at their level of fitness and work at their own speed.	2	none
PHED 1508	Bicycling	This course is designed to stimulate interest in cycling as a recreational activity and its contribution to the physical well-being of the participant. Must furnish own cycle.	2	none
PHED 1510	Beginning Skiing/Snowboarding	This course is an introduction to the basics of downhill (alpine) skiing. Clothing, equipment selection and safety will be discussed and demonstrated. Basic techniques of snowplowing, tow ropes and chair lifts will be taught. Extra fee will be collected. Additional time outside of class will be required.	2	none
PHED 1511	Advanced Skiing/Snowboarding	This course is for experienced skiers/snowboarders to enhance their skills on the slopes. Safe practices, controlling turns, learning to jump and maneuver in the terrain park will be covered. Students will have a chance to teach/assist others.	2	none
PHED 1512	Beginning Yoga	This course introduces yoga poses (asanas), relaxation, and breathing techniques. The practice of yoga promotes proper posture, strength, flexibility and stress relief for people of all ages and abilities. Yoga is a non-competitive activity.	2	none
PHED 1513	Aerobic Conditioning	This is an overview of various training techniques for aerobic conditioning. An elevated heart rate will be achieved daily through interval training, circuit training, calisthenics, yoga poses, and cardio machines. Students will monitor their improvement in cardiovascular fitness.	2	none
PHED 1514	Cardio Sampler	This course offers an aerobic sampler. We will split up into different sections. Every few weeks the aerobic style will change from traditional step aerobics to resistance aerobics, Boso Ball aerobics, boot camp aerobics, and callisthenic aerobics.	2	none
PHED 1516	Yoga for Stress Relief	This course teaches yoga with an emphasis on gentle and restorative asanas (poses), pranayama (breathing) and an introduction to meditation for any age and fitness level. The American Heart Association, Office of Veterans Affairs, and the American Psychological Association all recommend yoga and/or breathing and meditation as a way to reduce and deal with stress or anxiety.	2	none
PHED 1520	Vinyasa (Flow) Yoga	This course emphasizes putting poses together into a series (vinyasanas) and is for students with some previous yoga experience. Knowledge of basic standing poses and relaxation techniques is recommended. Expertise in strength and flexibility is not required, but students should be generally fit. Students will be encouraged to explore yoga theory and learn the Sanskrit name for each asana.	2	none
PHED 1521	Body Conditioning	This course provides progressive fundamental conditioning of the body for health and strength through systematic use of free weights.	2	none
PHED 1522	Weight Training	This course is an advanced course in body conditioning and training with the use of free weights.	2	none
PHED 1523	Strength Training for Women	This course is an introduction to the weight room and its uses as well as a comprehensive approach to strength training for women of all ages.	2	none
PHED 1524	Recreational Sampler	This course will introduce a wide variety of recreational pursuits in the lakes area and the opportunity to try a number of them in an instructional and safe setting. The goal is to assist students in finding enjoyable, lifelong pursuits that add quality to their lives.	2	none
PHED 1528	Introduction to Exercise Science	This course is designed to take a broad-based look at the field of exercise science. This course will explore the historical and philosophical foundations of physical education, and the exercise science field. Students will investigate careers in the field of study and related certifications within the field. The purpose of this course is to acquaint students with prospective career paths within the exercise science field and introduce them to professional organizations that provide certification and career enrichment opportunities.	3	NG Accuplacer Reading Score 237+
PHED 1534	Beginning Golf	This is a course for those interested in learning the fundamentals of golf. Emphasis will be placed on proper footwork, approach, delivery, and scoring. Rules and etiquette governing play will be stressed.	2	none
PHED 1536	Advanced Golf	This is a course for those interested in learning the fundamentals of golf. Emphasis will be placed on proper footwork, approach, delivery, and scoring. Rules and etiquette governing play will be stressed.	2	none
PHED 1541	Bowling	This is a course for those interested in learning the fundamentals of bowling. Emphasis will be placed on proper footwork, approach, delivery, and scoring. Rules and etiquette governing play will be stressed.	2	none
PHED 1544	Basketball - Coed	This course provides the basic skills and strategies of competitive basketball. Emphasis will be placed on proper passing, shooting, and defensive techniques, as well as rules of the game. Individual skills and team play will be covered.	1	none
PHED 1553	Power Volleyball	This course provides the basic skills and strategies of competitive volleyball. Emphasis will be placed on proper passing, setting and hitting techniques, as well as rules of the game. Individual and team play will be covered.	2	none
PHED 1570	Theory of Coaching	This course presents the theory and techniques of coaching competitive sports. The fundamental concepts and basic trends in the field of coaching will be presented. Coaching history, philosophy, psychology, pedagogy, and physiology, will be examined and analyzed.	2	none
PHED 1583	Athletic Training	This course covers prevention, care, taping techniques of ankles, knees, wrist, fingers etc. and rehabilitation of athletic injuries.	2	none
PHED 1590	Open Lab - Gym	This course provides a supervised, open lab experience for admitted CLC students.	0	none
PHED 1591	Open Lab - Weight Room	This course provides a supervised, open lab experience for admitted CLC students.	0	none
PHED 1594	Fitness for Life	This is a course for students of all ages that covers all aspects of exercise and physical fitness. The focus is on self-evaluation and personal program planning. Exercise quackery, guidelines for exercise and the health benefits of exercise will be discussed. Other topics such as nutrition, stress management, and life styles for healthy living are also covered.	2	none
PHED 1597	Honors Fitness for Life	This is a course for students of all ages and fitness levels introducing the main components of wellness and of physical fitness – cardio respiratory endurance, muscular strength and endurance, flexibility, body composition, and nutrition. Students will focus on self-evaluation in each component and personal program planning for living a healthier life. Current topics in wellness and/or fitness will be addressed. Students will choose a capstone project which will be either a written or oral research based study, or service learning activity based project. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways.	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
PHED 1599	Topics in Physical Education	This course will examine selected topics of interest in physical education. Offered on demand.	1-3	none
PHED 2501	Varsity Sports - Football	Athletic participation in intercollegiate football. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none

PHED 2502	Varsity Sports - Volleyball	Athletic participation in intercollegiate volleyball. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2503	Varsity Sports - Men's Basketball	This course is first year athletic participation in intercollegiate basketball. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2504	Varsity Sports - Women's Basketball	This is the first season of athletic participation in intercollegiate basketball. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2505	Varsity Sports - Baseball	Athletic participation in intercollegiate baseball. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2506	Varsity Sports - Softball	Athletic participation in intercollegiate softball. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2507	Varsity Sports - Golf	This course is first year athletic participation in intercollegiate golf. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2511	Varsity Sports - Football II	Athletic participation in intercollegiate football for a second season. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2512	Varsity Sports - Volleyball II	Athletic participation in intercollegiate volleyball. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2513	Varsity Sports - Men's Basketball II	This course is the second season of athletic participation in intercollegiate basketball. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2514	Varsity Sports - Women's Basketball II	This is the second season of athletic participation in intercollegiate basketball. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2515	Varsity Sports - Baseball II	Second season of athletic participation in intercollegiate baseball.	1	none
PHED 2516	Varsity Sports - Softball II	Athletic participation in intercollegiate baseball for a second season. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHED 2517	Varsity Sports - Golf II	This course is the second season of athletic participation in intercollegiate golf. Students practice daily and compete in the Minnesota College Athletic Conference and the National Junior College Athletic Association. Students interested in participating need instructor's approval.	1	none
PHYS 1401	College Physics I	This course is an algebra-based introductory physics and covers the mechanics and mechanical waves component of classical physics. The course topics include: kinematics in one- and two-dimensions, vectors, force, dynamics, circular motion, gravitation, work and energy, linear momentum, rotational motion, rotational work and energy, angular momentum, static equilibrium, periodic motion, waves, and sound. The course emphasizes conceptual understanding and problem-solving. The laboratory component is designed to reinforce conceptual understanding with hands-on experiences and physical measurements, and to provide opportunities for scientific report writing. The course uses digital data acquisition and simulations to help students visualize and understand abstract concepts. MnTC Goal 3	4	MATH 1470 or Accuplacer College Math score of 63 or higher
PHYS 1402	College Physics II	This course is an algebra-based introductory physics. It is a continuation of PHYS 1401. The course topics include: Fluids, thermodynamics, electromagnetism, AC and DC circuit, electromagnetic waves and light, optics, modern physics including atomic and nuclear physics. In addition to the emphases placed in the first semester physics course, an oral presentation of the student project is required. Knowledge of trigonometry is needed for a successful completion of this course. MnTC Goal 3	4	MATH 1470 and PHYS 1401
PHYS 1407	Principles of Physics	This course introduces major concepts in physics through algebra-based description, problem-solving, and experimentation. Topics covered include motion, force, energy, momentum, mechanical waves, sound, properties of matter and fluid, heat, electricity & magnetism, atomic physics, and radiation and radioactivity. The hands-on laboratory experiments and experimental projects involve group work, measurements, analysis, report writing, and presentation. Students will develop critical thinking skills, apply scientific methods, and learn communication skills through oral presentations and written reports. MnTC Goal 3	3	NG Accuplacer Alg Score 250+
PHYS 1411	Classical Physics I	This course is a calculus-based introductory physics. The topics include kinematics in three-dimensions, vectors, force, dynamics, circular motion, gravity, energy, linear momentum, rotational motion, rotational energy, angular momentum, equilibrium and elasticity, fluid mechanics, periodic motion, waves, and sound. The course emphasizes conceptual understanding, critical thinking skills, and problem-solving. The laboratory component reinforces conceptual understanding through scientific inquiry, physical measurements, and scientific modeling. The course also emphasizes formal report writing based on student projects. The simulations and digital/wireless data acquisitions are used to help students visualize and understand abstract concepts. MnTC Goal 3	5	MATH 1477 or MATH 1480
PHYS 1412	Classical Physics II	This course is a calculus-based introductory physics. The course is a continuation of the first semester physics course. The topics include ideal gas law, kinetic theory of gases, thermodynamics, electricity, magnetism, AC and DC circuits, electromagnetic waves, optics, and relativity. In addition to the emphases placed in the first semester physics course, an oral presentation of the student project is required. MnTC Goal 3	5	PHYS 1411; MATH 1477 or MATH 1480, and MATH 1478

PHYS 1425	Honors Astronomy/Physics	This course introduces concepts in astronomy and physics through demonstration, description, experimentation, and modeling. The topics in physics include motion, gravity as force, energy, properties of matter, heat, electromagnetism, light, relativity, quantum theory, and structure of matter. The astronomy topics include stars and stellar evolution, galaxies, galactic clusters, the structure of the local universe, the laws governing the universe, cosmology, the early universe, and the rationale and evidence for black holes, dark matter, and dark energy. The laboratory activities provide opportunities for developing basic measurement and analysis skills. The student will develop critical thinking skills, apply scientific methods, and learn communication skills through oral presentation and written reports. Students in this course will be required to attend the Nobel Conference as a part of the course activity. Students enrolled in this Honors course will be required to read additional scientific literature, participate in in-depth discussions, complete a capstone project including but not limited to: (original) research, inquiry based investigation(s), collaboration, or other project types that the instructor deems worthy of the Honors' designation. MnTC Goal 3	4	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
PHYS 1430	Concepts of Physics: A Universe of Hidden Charm	This course introduces concepts in physics through demonstration, description, experimentation, and proportional relation. The topics covered include motion, Newton's Laws of Motion, energy, gravity, waves, sound, properties of matter, heat, electricity, magnetism, and light. Selected topics from relativity, quantum theory, and structure of matter are also covered. The laboratory component provides opportunities for developing basic measurement and analysis skills, and conducting experiments in mechanics, heat, waves, sound, electricity, magnetism, optics, atomic structure, and radiation. The student will develop critical thinking skills, apply scientific methods, and learn communication skills through oral presentation and written reports. Mathematics at high school algebra level is used to unveil models of the known physical world. MnTC Goal 3	3	NG Accuplacer Reading Score 237+
PHYS 1480	Flight to Edge of Space: Electronic, Mechanical, and Navigational Systems	In this course students will work as a team to plan and successfully conduct a stratospheric balloon flight that carries their scientific research projects to the near-space. Activities include hypothesis writing, experimental design, construction, execution, data collection, analysis, scientific report writing, and presentation. Content topics in this course include dynamics, atmospheric physics, geophysics, electric and electronic circuits, navigational and electronic control systems. Designing scientific instruments involves breadboarding electronic components, programming microcontroller, testing electronics and experiment module. A companion Earth science course is required which will involve topics in Earth atmospheric structure and dynamic processes, contemporary topics in atmospheric pollution, and societal issues involving the atmosphere. Successful execution of a stratospheric balloon flight requires extensive teamwork and collaboration. The balloon flight will involve at least one all-day field excursion, and is required for this course. This is one of two courses in a learning community. The other is ESCI 1480 Flight to Edge of Space: Learning and Experimentation. Both courses must be taken concurrently. Expect extensive collaboration, communication, and transfer across the two courses. MnTC Goal 3	2	NG Accuplacer Reading Score 237+
POLS 1430	Introduction to Political Science	This course is an introduction to the basic concepts, philosophies, institutions and processes of government and politics. Topics of study include key concepts and facts, including the significant ideologies that influence modern governments. Study will also include comparative governmental systems with special emphasis placed on political leadership, terrorism, and types of warfare between nations. An examination of citizen participation in politics, political behavior, and political ideologies will also be included. MnTC Goals 5 and 9	3	NG Accuplacer Reading Score 237+
POLS 1435	American Government and Politics	This course examines the players and institutions of contemporary American government and politics. Topics of study include: American political thought, the U.S. Constitution, federalism, civil liberties and civil rights, public opinion, interest groups, political parties, campaigns and elections, the mass media, Congress, the presidency, bureaucracy, and the judiciary. A special emphasis is placed on the role of citizen participation. MnTC Goals 5 and 9	3	NG Accuplacer Reading Score 237+
POLS 1439	State and Local Government	This is a general survey course on state and local government. Topics of study include federalism, state constitutions, political parties, interest groups, elections, state agencies, local government, and policy making. The course covers state legislatures and law-making with special emphasis on the Minnesota Legislature. The office of governor is examined as is the Minnesota State Constitution and state government's relationship to Minnesota's local units of government. MnTC Goals 5 and 9	3	NG Accuplacer Reading Score 237+
POLS 1440	Society and Law	This course introduces students to the basic concepts of the law and the legal system in American society. Topics include the history of law, court organization, criminal law and procedure, constitutional law, administrative law, contracts and family law. This course examines how the law reflects society's values, why the law is closely connected to the political system and how the laws are enforced. Specific laws are analyzed and discussed. MnTC Goals 5 and 9	3	NG Accuplacer Reading Score 237+
POLS 2401	Federal Indian Policy	Surveys the development of United States Indian Policy. Examines the treaties, laws, and institutions that have been the basis of the trust relationship between the Indian people and the federal government. Course is offered on demand. MnTC Goal 5	3	NG Accuplacer Reading Score 237+
POLS 2402	Tribal Government	This course will provide an introduction to regional tribal governments by providing a history of their development, an overview of their structures, functions, powers and procedures. The course will compare and contrast these governments to other local, state and federal government, and discuss the varying approaches different tribal government have taken toward tribal business entities and the use of tribal business proceeds. MnTC Goals 5 and 9	3	NG Accuplacer Reading Score 237+
POLS 2450	International Relations	This course is an introduction to the concepts and practice of international relations, especially politics between different nations. Topics of study include globalization; differing national systems, interests and motivations; foreign policy and diplomacy; war and threats to international security; international law and organizations; global economics and technology; and the future of international relations. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 237+
POLS 2581	Topics in Political Science I	This course will examine selected topics of interest in Political Science. On demand.	1-3	none
PNUR 1130	Life Span	This course covers theories of human development and the progressive stages of physical, emotional, intellectual and social development during the life span.	1	Score of 78 or higher on Accuplacer Reading
PNUR 1132	Infection Control	This course covers scientific concepts related to the causes of infectious diseases, transmission of these diseases and methods of controlling their spread. In addition, the student will study how the human body responds and protects itself from these diseases.	1	Score of 78 or higher on Accuplacer Reading
PNUR 1134	Pharmacology	This course develops the student's awareness of basic pharmacological concepts. It teaches the Practical Nursing students how to calculate medication dosages and perform conversions between measurement systems. It covers drug laws and standards and safe medication administration. Students learn about the actions of medications in the body, i.e. absorption, biotransformation, metabolism, and excretion. The various classifications of medications are discussed along with how to use medication references.	2	admission to PN or Medical Assistant program

PNUR 1138	Medical Terminology	This course teaches students to recognize and build medical terms after learning the meaning of word parts. The course is based on a systems approach. Students will also learn to interpret and use common medical abbreviations.	1	Score of 78 or higher on Accuplacer Reading
PNUR 1140	Medication Calculations for Health Care Careers	This course is to introduce students to medical dosage calculations and the terminology associated with medication orders. Theory, skill, and terminology related to calculating medication dosages will be the focus of this course. Students will learn how to perform conversions between measurement systems. Students will review basic mathematical concepts related to medication administration.	1	NG Accuplacert Quan Score 240+
PNUR 1149	Clinical I	In this beginning clinical laboratory course, the student will take care of selected adult clients at an entry-level. This clinical experience will take place primarily in a long term care setting. The student will implement cares and skills that have been learned in prior laboratory and Practical Nursing theory courses. In addition, the student will demonstrate effective communication skills, maintain patient safety, and document cares accurately.	2	PNUR 1160
PNUR 1150	Clinical II	In this clinical course the student will be expanding upon the knowledge, skills and attitudes necessary to assist individuals experiencing common health care problems that were started in PNUR 1149. The student will demonstrate skill in problem solving through the use of the nursing process as they provide care for a variety of clients throughout the life span and in different stages of the health/illness continuum appropriate to the role of the practical nurse. Observational experiences are provided in selected areas to enrich the clinical experience. The student will work full shifts that may include day and/or evening hours.	4	PNUR 1149, PNUR 1160, PNUR 1168, PNUR 1265
PNUR 1151	Clinical Lab I	In this beginning clinical laboratory course, the student will take care of selected adult clients at an entry level. This clinical experience will take place in a long term care setting. The student will implement cares and skills that have been learned in prior laboratory and Practical Nursing theory courses. In addition, the student will demonstrate effective communication skills, maintain patient safety, and document cares accurately.	2	PNUR 1160
PNUR 1152	Clinical Lab II	In this clinical course the student will be expanding upon the knowledge, skills and attitudes necessary to assist individuals experiencing common health care problems that were started in PNUR 1151. The student will demonstrate skill in problem solving through the use of the nursing process as they provide care for a variety of clients throughout the life span and in different stages of the health/illness continuum appropriate to the role of the practical nurse. Observational experiences are provided in selected areas to enrich the clinical experience. Student will work full shifts that may include day and/or evening hours.	5	PNUR 1134, PNUR 1151, PNUR 1265
PNUR 1160	Practical Nursing Skills Lab	This course covers more complex nursing procedures. Concepts and rationales for clean/sterile techniques are explored along with instruction in procedures such as dressing changes, catheterization, suctioning, IV therapy, oxygen therapy, etc. Administration of oral and parenteral medications will also be taught. Documentation of these as well as other types of patient data will be covered, all within the context of the nursing process.	3	none
PNUR 1161	Clinical Lab I	In this beginning clinical laboratory course, the student will take care of selected adult clients at an entry level. This clinical experience will take place in an acute care setting. The student will implement cares and skills that have been learned in prior laboratory and Practical Nursing theory courses. In addition, the student will demonstrate effective communication skills, maintain patient safety, and document cares accurately.	1	none
PNUR 1162	Clinical Lab II	In this clinical course the student will be expanding upon the knowledge, skills and attitudes necessary to assist individuals experiencing common health care problems that were started in PNUR 1161. The student will demonstrate skill in problem solving through the use of the nursing process as they provide care for a variety of clients throughout the life span and in different stages of the health/illness continuum appropriate to the role of the practical nurse. Observational experiences are provided in selected areas to enrich the clinical experience. Student will work full shifts that may include day and/or evening hours.	4	PNUR 1134, PNUR 1161, PNUR 1265
PNUR 1163	Clinical Lab III	In this clinical laboratory, additional skills are performed, including IV therapy and professional responsibilities. Students will work full shifts in a clinical setting demonstrating correlation of theory and skills expected of new graduates. Clinical shifts will include day and evening hours.	3	PNUR 1162, PNUR 1166, PNUR 1175, PNUR 1270
PNUR 1166	Gerontological Nursing	This course covers aging and the aging process. Students will identify physical, psychosocial and health needs of the elderly population. The course emphasizes the role of the nurse in health promotion of older adults, focusing on maximizing potential and minimizing the effects of aging. Some topics covered include; medication interaction with the elderly, elder abuse, community resources and common illnesses of the elderly.	2	Admission to the PN program
PNUR 1168	Psychosocial Nursing	This course presents general principles of communication in the health care setting. The course will build on the student's basic skills and assist in developing skills in the care of emotional/mental illness, substance abuse, and social problems emphasizing nursing interventions in all health care settings.	3	Admission to the PN program
PNUR 1175	Maternal Child Health	This course describes signs of pregnancy, prenatal care, labor and delivery, and postpartum care. Complications of pregnancy, labor and delivery and postpartum, as well as fundamental nursing care of the neonate will be presented. The pediatric portion of the course describes the child's experience of hospitalization and health care adaptations for child and family. Care of the child with pediatric disease conditions will be presented.	2	PNUR 1161, PNUR 1134, PNUR 1265
PNUR 1265	Medical-Surgical Nursing I	In this course a framework for nursing practice is explored. This framework, titled the nursing process, provides a systematic problem-solving method for nurses enabling them to identify and meet patient needs. Complex nursing procedures are discussed within this framework, as well as selected diseases of the various body systems. The role of nutrition in prevention of disease and its application in treatment of disease is included.	5	admission to the PN program
PNUR 1270	Medical-Surgical Nursing II	This course continued on where Medical-Surgical Nursing I finished. In this course selected diseases of the remaining various body systems are discussed within the framework of the nursing process. The role of nutrition in prevention of disease and its application in treatment of disease is included.	6	PNUR 1134, PNUR 1161, PNUR 1265
PNUR 1303	PN Refresher	This course is designed to refresh Licensed Practical Nurses who have been inactive or need to re-register their licenses with the Minnesota Board of Nursing. Topics covered in this class are the role of the LPN, the State of Minnesota Nurse Practice Act, legal and ethical issues, modalities in nursing care delivery systems, nursing process, and update in clinical practice with review of body systems and related skills. Clinical experience will be provided in the acute care setting.	3	Must be currently licensed or must apply to MN Board of Nursing for relicensure prior to beginning class
PNUR 2360	Independent Study	This student-generated course is an opportunity to study particular areas of interest not covered in the general curriculum.	1-3	none

PSYC 1423	Positive Psychology: The Science of Well-Being	This course will emphasize using science in the pursuit of optimal human functioning and a meaningful life, with a focus on human strengths and promoting the fulfilling lives of healthy people. This course will first present an introduction to the science of psychology and examine research findings in positive psychology, and then move on to explore applications that are personally relevant to the lives of students in areas such as school, work, close relationships and the community. MnTC Goals 5 and 9	3	NG Accuplacer Reading Score 237+
PSYC 1425	Environmental Psychology	This course investigates the psychology of environmental problems as an interdisciplinary blend of psychology and environmental science by viewing current environmental issues through eight major psychological approach lenses. This course facilitates student understanding of how human consciousness and behavior contribute to, and result from, environmental threats. Learners will investigate how humans can choose to live in a manner that will ensure a sustainable future and how humanity is related to nature in terms of global interdependence, as well as how agriculturists can produce food sources to sustain a growing global population. Students who are interested in their roles as stewards of the preservation of nature for future generations can explore how psychology and the environment are interrelated. Learners will create individualized self-control projects (Behavior Change Plans) based on the seven aspects of personal lifestyle that most significantly impact the environment. They will describe how they can alter their daily lifestyles to live more responsible, sustainable, and conscious lives. MnTC Goals 5 and 10	3	NG Accuplacer Reading Score 237+
PSYC 2421	General Psychology	This class presents a general introduction to psychology as a biosocial science. This survey course will familiarize the student with the basic principles of psychology, show how psychologists employ the scientific method, and equip the beginning student of psychology with a working vocabulary of psychological terminology and critical thinking skills. Areas to be covered include research, the nervous system, learning, personality, memory, psychological disorders and therapy. MnTC Goals 2 and 5	4	NG Accuplacer Reading Score 237+
PSYC 2423	Honors General Psychology	This honors class presents a general introduction to psychology as a biosocial science. This survey course will familiarize the student with the basic principles of psychology, show how psychologists employ the scientific method, and equip the beginning student of psychology with a working vocabulary of psychological terminology and critical thinking skills. Areas to be covered include research, eurosciences and behavior, developmental and social psychology, personality, motivation, thinking and learning, memory, psychological disorders and therapy. Students will be introduced to psychological research and writing. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. MnTC Goals 2 and 5	4	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
PSYC 2427	Statistics for Psychology	An overview of the theories, procedures, and applications of descriptive, correlational, and inferential statistics in the behavioral sciences. Students use basic mathematical and computerized procedures to analyze data in the behavioral sciences. They will use statistical software (SPSS) to conduct descriptive and inferential data analyses. Students choose and apply statistical procedures to help to answer psychological and behavioral scientific research questions. Students read, interpret, and write APA-style results sections for behavioral science research. MnTC Goal 5	4	PSYC 2421 or PSYC 2423; and MATH 1460, MATH 1461 or MATH 1470
PSYC 2431	Human Development	This course is a lifespan approach to understanding human behavior. This course will cover theories and research findings in the field of psychology relevant to the psychological development of individuals across the lifespan. Areas to be covered include physical, cognitive, emotional and social development. The course will examine similarities and differences between individuals in the various stages of the lifespan. MnTC Goal 5	3	PSYC 2421
PSYC 2435	Educational Psychology	This course investigates the psychology of learning as an interdisciplinary blend of psychology and education by focusing on how cognition and learning can be applied to the lives of students. This course facilitates the student's understanding of the educational journey of a typical student. Learners will investigate methods of teaching, theories of learning, and assessment methods. Students interested in child development, parents of children currently in school, and students interested in understanding their own educational process, can explore how psychology can be applied in the classroom, through a lens of diversity and cultural sensitivity. MnTC Goals 5 and 7	3	PSYC 2421
PSYC 2441	Social Psychology	As humans, we are inherently social beings; our thoughts, feelings, attitudes and behaviors are greatly influenced by other people. In this class, you will learn what science can tell us about the ways that people think, feel and behave in social situations. Social psychologists research the answers to many questions that are relevant to our everyday lives, such as, "How can the same person act one way with one group of friends and be totally different with another group?", "Why are we attracted to some people and not others?", "How can students stand by when a peer is getting teased and bullied?", and more! You will examine topics such as: Social Perception, Social Cognition, Attitude Formation and Change, Group Processes, Attraction, Individual Relationships, Altruism, Aggression, Prejudice, and Discrimination. MnTC Goals 5 and 7	3	PSYC 2421 or PSYC 2423
PSYC 2470	Abnormal Psychology	This course examines psychological disorders, their causes and available treatments. Topics covered include anxiety, mood disorders, substance-related disorders, eating disorders, schizophrenia and disorders of childhood and adolescence. The difference between normal and disordered functioning and relevant social, economic, cultural and historical contexts will also be discussed. Applicable research will be reviewed in terms of cultural diversity implications from both historical and current perspectives. MnTC Goals 5 and 7	3	PSYC 2421 or PSYC 2423
PSYC 2570	Topics in Psychology	This course will examine selected topics in psychology.	1-3	none
READ 0595	Academic Literacy	Academic Literacy provides intensive instruction in critical thinking, reading, and writing in preparation for Composition I and other college courses. Using theme-based readings from a variety of genres, coursework will emphasize independent reading of complex academic texts, critical response to ideas and information in academic texts, writing essays that integrate ideas and information from academic texts, and practice in understanding lectures and preparing for discussions.	5	NG Accuplacer Reading Score 227+
READ 1505	Critical Literacy	Critical Literacy provides advanced instruction in critical academic discourse to support success in Composition I and other college-level courses. Using theme based readings from a variety of academic disciplines, students analyze complex academic texts, critically respond to ideas and information in academic texts, and construct essays and other written responses that integrate ideas and information from academic texts.	2	NG Accuplacer Reading Score 237+
READ 1598	Topics in Reading	This course will examine selected topics of interest in Reading. Offered on demand.	1-4	none

RAST 1101	Industrial Electronics I	This course covers resistance, capacitance, and inductance and their relationships with DC and AC voltages. The course begins with DC theory and covers Ohm's law, series circuits, Kirchhoff's law, series-parallel Circuits and networks. AC generation, RC/RL circuits, rectification and the use of test equipment will also be addressed. Active devices such as diodes will be covered on an introductory level.	3	Accuplacer Elementary Algebra score of 65 or co-requisite of RAST 1114 or equivalent
RAST 1102	Industrial Electronics II	This course continues where Industrial Electronics I left off by covering resistive, inductive, and capacitive circuits. This course also includes digital electronics by covering numbering systems, logic gates, Boolean Algebra, sequential logic circuits, encoders, decoders, and digital to analog converters.	3	RAST 1101
RAST 1103	Motors and Drives	This course covers electrical safety, commonly used industrial electrical symbols, and industrial electrical design using wiring and line (ladder) diagrams. The course also covers industrial equipment such as: pushbuttons, relays, contactors, motor starters, and variable frequency drives. Preventive maintenance and troubleshooting techniques will also be covered.	3	RAST 1101
RAST 1104	Introduction to Automation	This course is an introduction to start-up, operation and simple programming of industry standard robots in the robot lab. Additional topics include robot safety, robot types, robot move types, program structure, motion control, decision making, peripheral control, robot control modes, and program examples.	2	none
RAST 1105	Blueprint Reading	This course covers the skills necessary to interpret drawings and make technical sketches. Projection systems, drawing symbols, working drawings, assembly drawings, piping drawings, schematics, block diagrams, cable drawings, wire lists and multipage drawings are studied as they relate to robotics and automation.	2	none
RAST 1109	Computers in Industry	This course covers an introduction hardware and software components of personal computers. Items covered include the development of computers, working with multiple Microsoft operating systems, the use of Microsoft Office products, networking, data transmission, basic replacement of hardware, software installation, and working with peripherals such as floppy/hard/CD drives.	2	none
RAST 1110	Introduction to Manufacturing	This course provides a basic overview of basic manufacturing processes and career opportunities within manufacturing. Students will participate in a manufacturing simulation in which they will analyze the manufacturing process for a product and redesign the process to incorporate a teaming approach. Students will be given an introduction to the critical nature of safety in manufacturing and to the role of the individual in maintaining a safe work environment. This course provides students with an opportunity to develop their interpersonal skills through interactive exercises conducted in a team setting. Debriefing these exercises with all members of the class helps ensure that the exercises translate into personal and interpersonal learning for the participants.	2	none
RAST 1111	Industrial Electronics Lab I	This course covers hands-on skills in basic electronics. A proto-board is used in conjunction with several pieces of text equipment to build and measure circuit parameters. The laboratory exercises reinforce the related concepts covered in the companion theory course. The laboratory procedure teaches the student basic test and measurement techniques.	2	none
RAST 1113	Motors & Drives Lab	This course uses electrical safety procedures, electrical drawings, and commonly used symbols for hands on learning. The use of contactors, motor starters, relays, motors, limit switches, solenoids, and indicators will enhance the hands on learning experience and wiring of various circuits. Troubleshooting and repairing techniques will also be covered.	3	RAST 1111
RAST 1114	Math for Industrial Technology	This course covers topics such as calculator usage, SI unit conversions, algebraic applications of Ohm's & Power Laws, trigonometric functions, & dimensional analysis.	3	none
RAST 1120	Introduction to Engineering Graphics	This course introduces students to parametric modeling using the Solid Works program. Solid Works is prominent in industry and the theory it uses to create models is typical of this type of software.	2	none
RAST 1206	Programmable Logic Controllers I	This course covers the basic concepts of operation common to PLCs. Content will include basic uses of PLC operation, wiring input and output devices, sequencing, timing systems, countering systems, math functions, and programming techniques. This course introduces the Ladder Logic programming environment. Troubleshooting programs along with wiring will be practiced in the lab.	3	RAST 1101, RAST 1109
RAST 1212	Industrial Electronics Lab II	This course continues were "Industrial Electronics Lab I" left off by teaching hands-on skills in measuring and calculating resistive, inductive, and capacitive circuit parameters. This course also includes digital electronics by constructing circuits that demonstrate numbering systems, logic gates, Boolean Algebra, sequential logic circuits, encoders, decoders, and digital to analog converters.	2	RAST 1111
RAST 2101	Application Planning & Layout	This course covers the specifics of how a robotic application / automated manufacturing cell is designed. Included in the course are robotic placement within cell, types of robot(s) used within the cell, safety devices, electrical interfacing of controls, programming flow charting, developing timelines, fixture design, robot tooling design.	2	RAST 1102, RAST 1212
RAST 2105	Transducers	This course covers basic sensing terminology, both contact and non-contact sensing devices will be covered in both lecture and lab activities. These include inductive, photo, capacitive, analog, and machine vision. Students will during the lab portion of the class wire and measure sensor parameters using manufacturers data sheets, and sensor software. Included in the labs students will integrate the sensors as they would be used in common automated manufacturing systems. This includes integrating the devices into robot and plc I/O, programming plc, sensors and robots that give learners a practical understanding of how different sensors are used in the automated manufacturing environment.	2	RAST 1101, RAST 1104, RAST 1111
RAST 2106	Industrial Electronics III	This course covers bipolar transistors, voltage/current BJT operation, BJT characteristics, basic uses of BJT, BJT amplifier circuits. FET's, MOS FET's, power FET's, operational amplifiers, optoelectronics, robot I/O types, I/O setups, and configurations.	2	RAST 1102
RAST 2116	Industrial Electronics Lab III	This course requires that the student construct, connect, measure, and document parameters and operation of content covered and discussed in RAST 2106, such as bipolar junction transistors and amplifiers, field-effect transistors, op-amps, opto-electrical devices, and robot I/O.	2	RAST 1212
RAST 2120	Offline Programming and Simulation	The course will introduce students to offline or virtual programming utilizing a 3-D graphical simulation software platform utilized by a major robotics manufacturer. The student will utilize the simulation software package to virtually model an existing robotic system in order to simulate a robotic process, create and modify robot code, and conduct feasibility studies.	3	MTRD 1130, RAST 2132
RAST 2121	SCADA Programming	This course will train students in higher programming levels of supervisory computer and data acquisition (SCADA). Students will design and create graphical user interfaces in order to control complex automated processes. Students will monitor multiple processes in order to provide status indication, process control, data collection, and historical data trending. Students will set up industrial network communication in order to read and write data points to and from other processors such as industrial robots, programmable logic controllers, vision systems, and other computer-based operating systems.	2	RAST 2355

RAST 2122	HMI Programming	This course will train students to design and program graphical user interfaces to control industrial robotic and automated systems. Students will create operator interface stations for local cell operators to provide input, control, and production information. Students will also create necessary complimentary code and driver setup for the required robot or controller communications.	2	RAST 2132, RAST 2355
RAST 2123	Robotic Vision Programming	The course will train students to design and program machine vision systems in order to integrate them into robotic and automated systems. Students will learn how to acquire data points to identify product, positioning, orientation, size, and various quality assurance measurements. Students will create and set up certain industrial networks in order to communicate required information.	2	RAST 2132
RAST 2124	Lenses, Lighting, and Vision Hardware	This course will aid students in the application and design of machine vision systems. Students will learn different techniques in lighting product using multiple lighting sources, including visible, infrared, and ultra-violet. Students will learn about matching filters to lighting sources and camera lens focal lengths, and will be exposed to various physical camera hardware platforms in both two-dimensional and three-dimensional environments.	2	RAST 2132
RAST 2132	Robotic Programming	This course is designed to begin the programming process used to develop complex robotic cell operations. These include program structure, program elements, special program software features and functions depending on controller application software such as welding, material handling, machine vision, interconnection of robot controller programs and programmable logic controller program handshakes that are commonly used in industry. This will include software and hardware motion control and cell user interfaces.	3	RAST 1104
RAST 2150	Introduction to Robot Operations	This is an introductory course which will focus lecture and lab activities on operation of a robot within an existing automated manufacturing cell. Students will learn correct power up procedures for robot controllers, e-stop recovery, motion types, tooling control, teaching positional data, conditional program control, I/O types, references and addresses as they relate to robots and integrated automated machine processes.	2	none
RAST 2151	Robotics Integration Lab I	The robotics integration lab course begins the process of student working within application groups implementing the robotic automated manufacturing application designed and developed in RAST 2101 Application Planning and Layout. This will include building electrical control center, building robot end of arm tooling, product fixturing, programming of all programmable devices within the cell which can include multiple robots, programmable logic controllers, sensors and other devices. During the course students will document cell progress, evaluate operation of electrical, mechanical and programmed devices. Applications can be welding, material handling, assembly, CNC machine load unload, and replicate actual automated manufacturing processes in industry.	6	RAST 2101
RAST 2153	Applied Robotic Certification Lab	This course is designed for students desiring to expand their knowledge of specific advanced robotic applications used in industry. These applications may include vision guided robot applications, robotic welding integration, SCADA, robotic offline programming, robot cell simulations, and HMI (human machine interface). Once students select a specific application area, they will plan, document, program and interface the robot(s) and related software and equipment into a completed, functional robotic cell specific for that application.	6	RAST 2101, RAST 2151
RAST 2154	Robot Controller Maintenance	This course covers normal maintenance and trouble shooting of robot controller components. Included are lab exercises in trouble shooting real and simulated faults within the controller using electrical and software trouble shooting procedures outlined within the manufacturers' manuals. Safe trouble shooting procedures will be discussed in lecture and practiced in the lab.	2	RAST 1102, RAST 1212
RAST 2165	Fluid Power	This course covers fluid power and pneumatic symbols, basic circuits, properties of both fluid and compressed air. Storage, connections, valves, fitting, pressure area volume will be examined and explained. Actuating devices and controlling devices used in common automated systems will be covered.	2	PHYS 1401
RAST 2355	Programmable Logic Controllers II	This course expands on the use of plc's covered in RAST 1106. Included in the course is integration of the plc hardware and programs to control complex robot applications. Included in the course are the use of advanced program functions within the plc software structure, examples include masked memory moves, sub routines, sequencers, math function, data types, data move commands, hardware / software communication parameters, external programming devices. Trouble shooting of both plc hardware, software and program logic will be covered.	2	none
RAST 2370	Topics in Robotics	This course will examine selected topics of interest in Robotics. Offered on demand.	1-6	none
RAST 2390	Robotics Internship	Internship is an elective opportunity to earn college credit through an individualized occupational experience that recognizes knowledge and skills that can be learned on the job.	1-6	instructor's consent
RAST 2395	Advanced Robot Controller Programming	This course covers the advanced move types while teaching robot point data, system files, tool offsets, I/O mapping, file manipulation that a technician would be required to understand and program a complete robotic application such as welding, painting or assembly.	2	RAST 1102, RAST 1212
RAST 2399	Independent Study	This student-generated course is an opportunity to study particular areas of interest not covered in the general curriculum.	1-5	instructor's consent
SOCL 1401	Introduction to Sociology	This foundation course is highly recommended as the starting point from which students may logically proceed to higher level sociology classes. Students will be introduced to the fundamental concepts of the sociological perspective, including culture, socialization, organization, authority, deviance and inequality. Using the scientific method, students will hone their critical thinking skills by interpreting, analyzing, and evaluating the social world. MnTC Goals 2 and 5	3	NG Accuplacer Reading Score 237+
SOCL 1403	Honors Introduction to Sociology	This foundation honors course is highly recommended as the starting point from which students may logically proceed to further study of sociology. Students will be introduced to the fundamental concepts of the sociological perspective, including culture, socialization, organization, authority, deviance and inequality. Students in the honors course will be required to write papers reflecting a substantial understanding of the principle concepts of the sociological perspective. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
SOCL 1472	Sociology of the Family	This course examines contemporary issues facing families in the United States. Students will examine key topics in the sociology of families such as marriage, cohabitation, divorce, teen pregnancy and family violence. Attention will also be given to the variations in families by race, class, gender, and sexual orientation. Students will refine their sociological imaginations. MnTC Goal 5	3	NG Accuplacer Reading Score 237+

SOCL 2405	Criminology	Students will study the nature and origins of crime, past and present theories of crime, the social construction of criminality, the social costs of incarceration, and cross-cultural strategies for addressing crime issues and decriminalization of consensual crimes. MnTC Goal 5	3	NG Accuplacer Reading Score 237+
SOCL 2411	Social Problems	This course is an overview of current social problems using the sociological perspectives. Students will be able to articulate and apply their own ethical views and insights. The course analyzes how problems come to be defined, their ramifications and possible solutions. The course critically analyzes a range of social issues such as poverty and inequality, racism, sexism, family breakdown, crime and violence, and the environment among other emerging structural and systematic processes affecting the survival of peoples nationally and globally. MnTC Goals 5 and 9	3	NG Accuplacer Reading Score 237+
SOCL 2422	Culture and Environment	Students will examine environmental issues from a sociological perspective. The focus will be on social, political, and economic factors which encourage or discourage protection of the natural life support systems of earth. What steps are going to be required to restore our damaged resources and create a sustainable society for future generations? Considering the implications of what we have studied, students will be encouraged to develop a personal philosophy. MnTC Goals 5 and 10	3	NG Accuplacer Reading Score 237+
SOCL 2480	Sociology of Death and Dying	This course examines death, dying and bereavement from a variety of perspectives (e.g., historical, cross-cultural and social-psychological), but it emphasizes a sociological perspective on death and dying. Among the topics covered are: the social meaning of death, America as a "death-denying" culture, the dying process, life after death, euthanasia, suicide, hospice care, funerals and body disposition, the American Healthcare system, diversity in death rituals, and the grieving process. MnTC Goal 5	3	NG Accuplacer Reading Score 237+
SOCL 2481	Race, Ethnicity and Oppression	Students will investigate the historical factors and events that explain oppressive acts and ideas in the present. Positive contributions of oppressed groups to modern culture and everyday life will be noted. Students will debate solutions to issues which have proven to be very controversial. MnTC Goals 5 and 7	3	NG Accuplacer Reading Score 237+
SOCL 2599	Topics in Sociology	This course will examine selected topics of interest in Sociology. Offered on demand.	1-3	none
SPAN 1401	Beginning Spanish I	This is an entry level Spanish language course. Beginning level vocabulary groupings (pastimes, family, time, clothing, foods) will be used in elementary conversations. Grammar will include present tense of regular verbs, stem-changers, present progressive, irregulars, reflexives and some idiomatic constructs. Preterite tense of regular verbs will be introduced, time permitting. Graded level readings are used for comprehension and paired activities and role-play are implemented for beginning conversational interaction. Cultural data and correct intercultural communication is introduced by country. MnTC Goal 8	4	NG Accuplacer Reading Score 237+
SPAN 1402	Beginning Spanish II	This course is a continuation of SPAN 1401. Basic vocabulary groupings will be added (town, travel, social issues) at a more diverse topic level. Short readings related to Spanish-speaking countries are introduced for pronunciation and comprehension exercises. Grammar and vocabulary are practiced through writing and oral class participation. Advanced grammar includes preterite, conditional, imperative (commands), and present tense subjunctive. Cultural activities are an integral piece of each lesson. Completion of previous beginning Spanish course(s) or one year of high school Spanish is recommended. MnTC Goal 8	4	NG Accuplacer Reading Score 237+
SPAN 1597	Topics in Spanish	This course will examine a specialized selected topic related to Spanish language and / or Spanish language cultures. On demand.	1-3	none
SPAN 1598	Topics in Spanish	This course will examine a specialized selected topic related to Spanish language and / or Spanish language cultures. On demand.	1-3	none
SPAN 2401	Intermediate Spanish I	This course is a review of the fundamentals in grammar and vocabulary covered in the first year of Spanish language study, with amplification to more advanced structures and complex language usage. The remaining verb tenses (future, conditional, subjunctives) will be introduced through reading, writing and speaking. Graded level readers are used for pronunciation, comprehension and cultural information, providing topics in art, music, politics and current events. Short essays and conversations complete the language skill practices. SPAN 1402 or equivalent (2-3 years of high school Spanish) recommended. MnTC Goals 6 and 8	4	NG Accuplacer Reading Score 237+
SPAN 2404	Intermediate Spanish II	This course follows SPAN 2401 in sequence of grammar acquisition. Review begins with the present subjunctive formation and uses. Continued emphasis will cover reflexives, Ser/Estar, passive voice, perfect tenses, and the introduction of imperfect subjunctive. Grammar practice and the perfecting of language structures is emphasized. Vocabulary will reflect upper level constructions, idioms, words frequently confused and cultural variances. This course is also designed to promote communication in the target language. Graded level readers provide reading practice, grammar review, vocabulary building and cultural reference. Role play, videos, newspapers, magazines and native speaker guests serve as a basis for class discussion, enhanced reading, listening, and comprehension skills. MnTC Goals 6 and 8	4	NG Accuplacer Reading Score 237+
SPAN 2420	Many Faces of Mexico	This course explores the cultural, historical and social realities that together form contemporary Mexico. Topics covered will include Mexico's indigenous roots through Spanish colonization, the first century of Mexico as a nation, and current U.S./Mexico relations. Students will learn to better understand the complexity of current U.S./Mexico relations. MnTC Goals 5 and 7	3	NG Accuplacer Reading Score 237+
SPAN 2425	Cultures of Latin America	This course includes an overview of pre-Columbian cultures (Maya, Inca, Amazonian) , the effects of the incoming Spanish and Portuguese cultures and how these roots have evolved into current Latin American situations. Issues covered include the politics, religions, economics, gender and rich cultural diversity of the area. Where does contemporary Latin America fit globally? What is the U.S. / Latin American past and present relationship? Specific countries will vary by semester. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 237+
SCMT 1110	System Goal Setting	This course is geared towards people who are thinking about starting a business growing specialty crops. Students will consider several major factors before deciding whether or not to become a specialty crop producer. Advantages and disadvantages of different crops will be covered.	1	none
SCMT 1111	Introduction to Specialty Crops	This course introduces the student to specific crop enterprise opportunities available to generate income on limited acreage. Emphasis will be placed on establishing family and business goals that will help the sudent select crop enterprises that would be compatible with their economic requirements and management ability.	2	none
SCMT 1112	Introduction to Financial Planning and Analysis	This course will introduce the student to the process of financial planning and analysis for the specialty crop business. Students will establish an effective record keeping system and learn how to use the information to plan cash flow needs and monitor the performance of the business.	2	none
SCMT 1114	Marketing of Specialty Crops	This course covers the steps involved in developing a strategy to sell locally grown produce. Students will estimate the population in their marketing area and determine if farmer's markets, wholesale or consumer supported agriculture (CSA) will provide the best approach for selling their products.	2	none

SCMT 1116	Introduction to Soils and Plant Growth	This course will provide students with an understanding of soil types, their characteristics and which crops will grow best on their soils. Students will learn how to manage soils to achieve desired plant growth by using nutrient management techniques appropriate to specific soil types and crop growth needs.	2	none
SCMT 1117	Pest Identification and Control	This cource introduces the student to Integrated Pest Management techniques. Students will learn how to identify the most common insects, diseases and weeds that threaten their crops, and learn to choose appropriate cultural practices and pesticides for each pest.	2	none
SCMT 1119	Pesticide Safety and Handling	This course covers how to properly and safely apply pesticides to crops. Students will learn the difference between restricted use and non-restricted use pesticides and determine if they will need to acquire a pesticide applicators license. Different sprayers appropriate for their farming operation will also be covered.	2	none
SCMT 1121	Fertilizer Selection and Handling	This course covers the selection and application of fertilizer materials used in the production of specialty crops. Students will learn how to calculate nitrogen and other nutrient needs for their crops based on crop demand and soil tests.	2	none
SCMT 1124	Irrigation Planning and Management	This course covers the selection, design and managment of irrigation systems appropriate to specialty crops. Students will learn the advantages of using a drip system versus using impact sprinklers or microsprinklers. The unique water needs of various specialty crops and soil types will be covered.	2	none
SCMT 1135	Labor, Risk and Tax Management	This course covers unique labor, insurance and tax circumstances that pertain to the business of producing and selling fruits and vegetables in direct market and wholesale outlets. Students will learn about options for buying crop insurance for specialty crops, and will also learn steps they can take to reduce their liability insurance.	2	none
SCMT 1232	Post Harvest Processing of Specialty Crops	In this course, students will learn the steps involved in proper handling of harvested fruits and vegetables for processing or long term storage. Students will learn the proper time to harvest products and identify equipment needed to store or process produce.	1	none
SCMT 1241	Alternative Crop Systems	This course covers alternative crop and management systems that can be used in fruit and vegetable production. Students will learn how to integrate different cropping practices to increase labor and marketing efficiencies. Costs and benefits of new technologies will be explored.	2	none
SCMT 1243	Cultural Practices for Specialty Crops	This course covers the production practices necessary to successfully grow specialty crops. Students will learn appropriate plant physiology, identify production problems and determine the best course of action to treat different production problems.	2	none
SCMT 2000	Special Topics in Soil Management	Students will study the relationship between soil and profitability for specialty crops. Students will learn which soil types are best for specific crops, and how to change the soil for desired crops.	1	none
SCMT 2125	Advertising and Customer Relations	This course covers the use of advertising to increase sales and expand the customer base. Students will identify the most effective advertising strategies for their business location and learn methods to handle dissatisfied customers.	2	none
SCMT 2127	Advanced Financial Planning and Analysis	This course provides students with a systematic method to assess specialty crop business enterprise strengths and weaknesses based on information obtained through computerized analysis of specialty crop business accounts. Students will learn how to use information from the analysis to make changes in their specialty crops business.	2	none
SCMT 2131	Advanced Soils and Plant Nutrition	This course identifies the nutrient needs for various specialty crops and alternative methods of achieving and maintaining desired nutrient levels. Students will learn how CEC and pH influence soil fertility and which nutrients are best added with foliar feeding.	2	none
SCMT 2132	Advanced Marketing Strategies	Students will look at different ways to market their products to determine which selling venue will help them meet their business goals. Students will learn how to interpret specialty crop business analyses and customer surveys to help make marketing decisions.	2	none
SCMT 2136	Advanced Pest Identification and Control	This course covers alternative methods of weed, insect and disease control. Students will learn both cultural practices and chemical methods to control specific pests. Special emphasis wil be placed on understanding the life cycles of insects, fungi and weeds that reduce crop yields.	2	none
SCMT 2200	Current Issues in Specialty Crop Marketing	This course is designed to help students understand how recent developments can influence their specialty crop business. Topics may include changes to the market due to recent events or changes in advertising due to advances in technology.	1	none
SCMT 2305	Legal Issues for Specialty Crop Growers	Students will learn the different laws that regulate specialty crop businesses and the legal ramifications of transferring the business.	2	none
SCMT 2320	Family and Business Relationships	This course explores the challenges family members encounter during the operation of a family-owned business. Family members will learn how to achieve better communication and learn to deal with other issues that arise in a multi-generational business.	2	none
SCMT 2325	Tree Fruit Production Basics	Students will learn the basics of tree fruit production including selecting rootstocks, selecting varieties, finding the right site to plant trees, projected costs and returns of a fruit orchard, and labor requirements for orchard production.	2	none
SCMT 2327	Orchard Planning	Students will map out orchards that will be planted on the properties, taking into account estimated tree size. Students will choose desirable varieties and rootstocks and decide whether or not a windbreak or a trellis will be needed. Students will decide whether or not to install an irrigation system and will be able to state the reasons for the choice.	2	none
SCMT 2329	Orchard Training and Pruning	In this course, students will learn how to properly prune and train trees in order to achieve desired orchard efficiencies and production. Students will learn advantages of summer versus dormant season pruning, and how pruning can reduce disease and insect pressure.	2	none
SCMT 2330	Business Math for Specialty Crop Producers	In this course, students will learn how to perform the basic mathematic calculations necessary for running a specialty crops business. Topics include spray calculations, dilution calculations, and calculations to determine profitability and cost of production.	2	none
SCMT 2334	Value Added Opportunities for Specialty Crops	This course explores several different opportunities in which specialty crop raw material can be processed into products that can be sold later at an increased market value.	1	none
SCMT 2335	Labor Economics and Management	In this cource, students will learn how to utilize labor as a business resource. Students will learn how to hire and fire employees, proper regulations for hiring employees, and morale building and motivation techniques.	2	none
SCMT 2350	Small Fruit Production Basics	In this course, students will be introduced to cultural practices specific for strawberry and raspberry production. Students will choose a good site for berries and learn the importance of choosing the correct variety for their soil and marketing situation.	2	none
SCMT 2360	Planning for Vegetable Production	In this course, students will develop a yearly plan to plant and sell vegetables from their property. The yearly plan will take into account weather conditions, labor availability and pest control for each crop.	2	none
SCMT 2363	Vegetable Diseases	In this course, students will acquire the skills needed to identify and control diseases that occur in a diverse cropping system. Students will learn to differentiate fungal diseases from viral and bacterial diseases and learn common cultural practices that will control most diseases.	2	none
SCMT 2400	Special Topics - Business Plans	In this course, the student will write and submit a business plan that includes a vision statement, a mission statement, a cash flow plan and a contingency plan.	1-4	none

SCMT 2500	Special Topics - Cultural Practices	In this course, students will develop financial projections in order to determine which cultural practice will give them their best cash flow. Cultural practices that will be studied include weed control, crop rotations, soil compaction and irrigation.	1-4	none
THTR 1442	Improvisation	This course will introduce students to the performance art of improvisation. Through an application of basic improvisation principles and the use of theatre games, students will acquire a basic skill level in spontaneously generating character, situation, dialogue, and story. Students will showcase their work in live performance situations with invited audiences. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
THTR 1443	Stage to Screen: Plays that Become Movies	This course will study selected plays and the film versions of those plays. It will focus on a comparative analysis of how the ideas of a script are communicated via the stage versus how those ideas are communicated via the film medium. Students will read plays, view the film versions of those plays, and participate in in-class discussion and submit analytical papers. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
THTR 1445	Acting for the Camera	This course is for students who want to learn about acting in video, film, television, and other recorded media. Students will have the opportunity to perform in front of the camera and see themselves as the camera records them, revealing their strengths and challenges. Acting techniques specific to working in film and television will be covered along with methods for auditioning, script analysis, character development, acting as communication, and acting styles in film and video. The course is also recommended for those wishing to enhance their on-screen presentational skills, be it in film, video, or online presentations. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
THTR 1451	Introduction to Theatre	This course is a survey of the various elements that make up the theatre experience, including a brief overview of the history of theatre development, and an examination of theatre traditions in non-Western cultures: including lecture, readings, and attendance of live performances. MnTC Goals 6 and 8	3	NG Accuplacer Reading Score 237+
THTR 1452	Stage Make-up	This course is a study of materials and techniques used in the application of theatrical make-up. The class also covers script analysis, research, make-up design and practical applications. Students allergic to latex or wool should not take this class. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
THTR 1453	Theatre Costuming	This one credit class is for participating in any of the following technical area of the theatre; i.e., set construction, painting, lighting, sound, make-up, costuming, properties, front of house and stage crew. This course requires 30 hours of work over the course of the semester. Students may take up to four Theatre Production Labs. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
THTR 1461	Acting I	This course is designed to acquaint the student with the fundamentals of acting through a study of theory and lab experience. Recommended for students pursuing majors or minors in speech, theatre, English, or elementary education. MnTC Goal 1	3	NG Accuplacer Reading Score 237+
THTR 1462	Acting II	This is an advanced course in acting, taking the Stanislavski acting method and concentrating on in-depth scenework and critiquing. MnTC Goal 6	3	THTR 1461 or instructor's consent
THTR 1466	Acting Lab	Acting labs are for the rehearsal and performance of plays being presented by the Theatre Department. Rehearsal and performance schedules to be arranged. MnTC Goal 6	1	NG Accuplacer Reading Score 237+
THTR 1471	Theatre Production Lab	In this one credit class, students participate in any of the following technical areas of the theatre: set construction, painting, lighting, sound, make-up, costuming, properties, front of house, and stage crew. MnTC Goal 6	1	NG Accuplacer Reading Score 237+
THTR 1478	Technical Theatre	Technical Theatre is designed to give students a working practical knowledge of the technical element of a theatrical production. The course covers the proper use of tools, set construction and rigging, how to hang a light plot, property construction, painting techniques, theatre etiquette and safety. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
THTR 1480	The Theatre Experience	This course will examine the theatre-going experience, including audience etiquette, stage conventions, reading a play script, and analyzing a performance. The course will use a trip to New York City as an applied field trip. Plays will be selected on the basis of the New York theatre season offerings during the time of the trip. Travel expenses are extra. MnTC Goal 6	1-3	NG Accuplacer Reading Score 237+
THTR 1481	The Theatre Experience-New York	This course will examine the theatre-going experience, including audience etiquette, stage conventions, reading a play script, and analyzing a performance. The course will use a trip to New York City as an applied field trip. Plays will be selected on the basis of the New York theatre season offerings during the time of the trip. Travel expenses are extra. MnTC Goal 6	1-3	NG Accuplacer Reading Score 237+
THTR 1482	The Theatre Experience-London	This course will examine the theatre-going experience, including audience etiquette, stage conventions, reading a play script, and analyzing a performance. The course will use a trip to London, England, as an applied field trip. Plays will be selected on the basis of the London theatre season offerings during the time of the trip. Travel expenses are extra. NOTE: This field trip is optional. Students who do not travel to London will be given an alternate research assignment with a play-going component. MnTC Goals 6 and 8	1-3	NG Accuplacer Reading Score 237+
THTR 1483	Honors Theatre Experience	This course is an immersion into the total theatre experience. Students will read and analyze play scripts, develop an aesthetic framework for the plays' production. The class will then travel to a select number of theaters in Minnesota to see productions of the plays read, meet with the creative teams that produced the play, and tour the facilities where the productions take place. Emphasis will be placed on cultural, socioeconomic, political, and human diversity issues as they apply to the specific plays/productions. Comparative analysis will take the form of directed classroom discussion and/or analysis papers. Ticket fees for productions seen are extra. Courses in the Honors Program emphasize independent inquiry, informed discourse, and direct application within small, transformative, and seminar-style classes that embrace detailed examinations of the material and feature close working relationships with instructors. In addition, students learn to leverage course materials so that they can affect the world around them in positive ways. MnTC Goals 6 and 7	3	NG Accuplacer Reading Score 265+, or ACT English score of 24 or greater, or permission of Honors Coordinator
THTR 1496	Summer Theatre Workshop	This course is a workshop in acting and/or technical areas of theatre performance and production. Activities and assignments will be determined by the needs of the shows in the summer theatre season. MnTC Goal 6	3	NG Accuplacer Reading Score 237+
THTR 1597	Topics in Humanistic Theatre	This course will cover selected topics of interest in Theatre.	1-3	none
THTR 1598	Topics in Humanistic Theatre	This course will examine selected topics of interest in Humanistic Theatre. On demand.	1-3	none
THTR 2410	Children's Theatre	Children's Theatre is theatre written, directed, and produced for a young audience performed by adult actors. In this course students will participate in all phases of producing a children's theatre production as part of the Central Lakes College theatre season. This is a performance class. MnTC Goal 6	3	none
THTR 2441	Directing for the Theatre	This course is an introductory course in the fundamentals and methods of directing that includes choosing a script and analyzing and blocking it, in preparation for rehearsals and the final production. MnTC Goal 6	3	THTR 1451 or instructor's consent

THTR 2450	Theatre History	This course is a survey of Western and Classical Asian theatre. Major periods and/or movements of theatre are discussed as they occurred chronologically. Analysis of the period's practices, practitioners, playing space and audience in the context of the cultural and societal forces of that period. MnTC Goals 5 and 8	3	NG Accuplacer Reading Score 237+
THTR 2491	Theatre Independent Study	In this course the student will meet with the instructor several times and complete a mutually agreed upon theatre project. MnTC Goal 6	1-3	none
VPRO 1100	Media Script Writing	This course is designed to develop scriptwriting skills for broadcast, web and corporate film making. All video production incorporates some form of scripting. Students will explore the many different ways a scriptwriter ties the project together. Students will learn to write scripts meant to be 'made' and not just read. Camera angles and cues will be studied. Creative writing skills will be emphasized in conjunction with the ability to communicate in words 'visually' and write 'spatially'. Emphasis is placed on the traditional writing process (brainstorming, outline, treatment, draft and revision. Stylistically, our focus will be on the AV-2-column style. Topical areas include corporate communications, commercials/PSAs, documentary and feature-narrative	3	ENGL 1410 or ENGL 1422
VPRO 1110	Video Editing Workflow	This course consists of entry-level videography skills used to produce motion pictures from conception to completed video. Students will produce commercials, documentaries and fictional narratives from start to finish. The emphasis is on postproduction techniques - namely, editing. However, basic terminology and strategies of all production aspects will be examined. The three main phases of production will be deconstructed to reveal a film's internal development. Students will divide into production teams and immediately begin creating content. Students will complete the course with one or more portfolio videos	3	none
VPRO 1112	Basic Camera	This course will introduce incoming students to professional video camera operation. Safe handling of equipment will be emphasized throughout the course. Instruction will include those standard functions critical for professional-level operation; including focus, color balance, audio, exposure and adaptation. Basic shot composition and motion picture sequencing will be analyzed and applied.	3	none
VPRO 1114	Camera Operations	This course will introduce incoming students to professional still and video camera operations. Safe handling of equipment will be emphasized. Instruction will include standard functions critical for professional-level DSLR & video camera operation; focus, color balance, audio, exposure and power. Introductory shot composition and motion picture sequencing will be examined. Students will gain experience in a variety of professional-level cameras.	3	none
VPRO 1126	Media Lighting and Sound	This course is intended to familiarize videography students with the two most significant support services in video production - lighting and audio. Participants will explore the proper use of broadcast lighting equipment. On alternate weeks, students will explore the proper use of sound acquisition equipment and sound manipulation software applicable to enhanced motion picture quality.	4	none
VPRO 1128	Business of Media	Students will explore effective business practices relating to the media industry. The course is designed to assist students in gaining employment. Topics of study include career options, small business development, accounting procedures, marketing techniques, portfolio creation, resumes, cover letters, business plans, and interview techniques	3	none
VPRO 1130	Creative Development	This course focuses on developing techniques in the development and use of creative content in the preparation of video projects. Students will compose unconventional scripts, employ arresting camera techniques and improvise new editing styles to create innovative videos.	2	none
VPRO 1150	Media Graphics	This course covers basic development and manipulations of raster and vector images for media presentations.	2	none
VPRO 1290	Video Production Internship	This course provides practical experience in the development, production and distribution of videos through an individualized occupational experience. The internship allows students to demonstrate their knowledge and skills, as well as learning new techniques and enhancing their skills in a job setting.	1-6	instructor's consent
VPRO 2104	CLC Productions I	CLC Productions I is part one of a two-course sequence. In CLC Productions I, students will be divided into two groups and follow one of two tracks. Students in Track A will focus on producing 'real-world' corporate/industrial productions for the college community and local non-profit organizations. The objective of this unit is to provide students with hands-on experience in authentic working environments. Concurrently, students in Track B will produce an episodic college news broadcast distributed on-campus and on public access television. The strategy of this unit is to mimic an authentic news and studio environment. Subsequently, all students exchange roles in CLC Productions II during spring semester.	4	none
VPRO 2106	CLC Productions II	CLC Productions II is a continuation of a two-course sequence. In CLC Productions II, students will be divided into two groups and follow one of two tracks. Students in Track A will produce an episodic college news broadcast distributed on-campus and on public access television. The strategy of this unit is to mimic an authentic news and studio environment. Students in Track B will focus on producing 'real-world' corporate/industrial productions for the college community and local non-profit organizations. The objective of this unit is to provide students with hands-on experience in authentic working environments.	4	VPRO 2104
VPRO 2110	Advanced Camera	This is a second year course for students who have successfully completed all videography first year classes. Students will apply techniques for capturing complex and artistically advanced motion pictures using a variety video cameras and support equipment. Specialty devices including jibs, floating camera systems and point-of-view cameras. Advanced sequencing will be emphasized. Macro videography, artistic videography and action videography are all explored in this practical application course.	3	VPRO 1110, VPRO 1112
VPRO 2112	Advanced Video Editing	Video production is a business and must be operated with professional standards at all times. This course will prepare students to succeed occupationally in the video production industry. You, or the company you work for will provide a variety of custom video production services. Your services must reflect the specifications of each client or assignment. Each video is a custom product and therefore has its own unique set of criterions. Therefore, you also provide consultant services as you guide your client or supervisor through the process of determining the best-fit video for their needs. All of these considerations are addressed in this course. Students will explore effective business practices designed to gain and retain clients or employment. Business accounting procedures designed to keep a business legal and solvent will be identified. Marketing techniques designed for maintaining and expanding a business or career are investigated. Participants will create samples of work used for portfolios and distribution on social media platforms. Resumes, cover letters and business plans will be included in this curriculum.	3	VPRO 1110, VPRO 1112
VPRO 2120	Interactive Design & Production	This course provides practical experience in authoring and managing all visual media to various formats ad platforms. Students will learn techniques in DVD authoring and menu controls, uploading to social media sites and web or presentation placement. They will study the design principles used in successful interactive media development.	3	VPRO 1110

VPRO 2130	Creative Development	This course focuses on completing the production cycle for students by offering the opportunity to produce and direct a film of their choice from start to finish. Each student will be required to produce a completed motion picture, using classmates as crew members and sharing all aspects of the production process. Each participant will be responsible for conceiving, budgeting, scripting, directing and editing a film that can be presented as a portfolio finale.	4	for 2nd year students only
VPRO 2350	Video Production Internship	Internship is an elective opportunity to earn college credit through an individualized occupational experience that recognizes knowledge and skills that can be learned on the job.	1-6	instructor's consent
VITI 1105	Molecular Principles in Grade and Wine	This course puts emphasis on basic chemical fundamentals, organic chemistry, biochemistry, and their focused applications in the grape and wine industry.	4	none
VITI 1110	Introduction to Wine Microorganisms	This course is designed to introduce students to the basic principles of wine microbiology and to serve as an introduction to the variety of microorganisms frequently encountered in the wine making process. Yeasts, bacteria, and molds play vital roles in the production of wine, both beneficial and harmful. Students will become familiar with the morphology, reproduction, and sensory attributes of wine microorganisms in order to understand their influence on wine making, and a basic understanding of their effective management.	3	none
VITI 1111	Intro to Viticulture and Vineyard Establishment	This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 16 hours of hands-on experience will be scheduled in area vineyards.	3	none
VITI 1112	Botanical Viticulture	This course is designed to provide students with an overview of the plant kingdom and to examine grapevine form and function from a botanical perspective. Topics to be covered include the specific characteristics of plants that distinguish them from other forms of life, divisions within the plant kingdom with representative members of each, and plant classification. Plant cells, tissues, life cycles, structures and functions, especially as applied to grapevines will also be discussed, along with various aspects of plant and grapevine physiology, such as photosynthesis, respiration, nutrition, cold acclimation and hardiness, and dormancy.	4	none
VITI 1113	Winter Viticulture Technology	This course is designed to provide students interested in the field of viticulture practical experience in winter vineyard operations. Students are required to collaborate with an approved vineyard to participate in the required field experience portion of the course, which will serve as work experience for those seeking employment in commercial viticulture.	2	VITI 1111
VITI 1114	Spring Viticulture Technology	This course is designed to provide students initiated in the field of Viticulture practical experience in spring vineyard operations. Students are required to partner with an approved vineyard to participate in the required field experience portion of the course which will serve as work experience for those seeking employment in commercial viticulture.	2	VITI 1111
VITI 1115	Summer/Fall Viticulture Technology	This course is designed to provide students initiated in the field of viticulture practical experience in summer/fall vineyard operations. Students are required to partner with an approved vineyard to participate in the required field experience portion of the course which will serve as work experience for those seeking employment in commercial viticulture.	2	VITI 1111
VITI 1117	Cold Climate Viticulture	This course offers a practical understanding of the obstacles and promise of growing grapes and making wine in cold climates. Topics relating to cold climate production include history, physical limits of grapes, successful varieties, viticulture, and enology methods for producing quality cold climate wine, the state of cold climate research, a review of resources, and marketing strategies in cold climate regions.	1	none
VITI 1130	New Wine Business Feasibility	This course provides a systematic look at the different components of a successful wine or vineyard brand and assists students in creating a plan for a profitable business. Students will be exposed to key aspects of the business, including the regulatory climate for making and selling wine or grapes, financial frameworks to develop a vineyard and/or winery or to create a virtual brand, and different models for profitability. Every student will be given the tools and frameworks to critically evaluate this competitive landscape and make decisions on a course of action.	3	none
VITI 1132	Entrepreneurial Finance for Vineyard and Winery Business	This course focuses on the financing decisions faced by entrepreneurs. During the first section of this course students will learn the basics of financial accounting and planning, including financial statements and pro forma preparation and analysis. In the second section, students are introduced to the concepts of financial management, including the time value of money, profitability and break-even analysis, capital budgeting and management, and cash flow analysis. The third section of the course focuses on analyzing capital funding and financing options and needs, including business valuation models and raising capital through debt, equity, and community resources.	3	none
VITI 1146	Intro to Enology	VITI 1146 is a 15-week course based on the fundamentals of the science and technology of winemaking. Introduction to Enology targets the home winemaker and those interested in exploring winemaking as a career, either as a cellar worker or as a new winery owner. During this course, students will build a basic understanding of winemaking, including making wine from a kit. This course is part of VESTA's viticulture and enology program with emphasis on the practical aspects of winemaking.	3	Students must be of legal age to drink alcohol
VITI 1147	Introduction to Fruit Wine Production	This course is a 12-week course based on the fundamentals of the science and technology of fruit winemaking. Introduction to Fruit Wine Production targets the home winemaker and those interested in exploring winemaking as a career, either as a cellar worker or as a new winery owner. During this course, students will build a basic understanding of Fruit winemaking. This course is part of VESTA's viticulture and enology program with emphasis on the practical aspects of winemaking.	2	VITI 1146
VITI 1148	Winery Sanitation	This is a course in the basic science and technology of winery sanitation. The course serves as an introduction to wine microbiology and covers all methods used for winery sanitation including premises, tanks, pumps, filters, oak barrels and sampling equipment, including but not limited to chemical agents, reagents, and thermal treatments leading to sterile bottling. Environmental issues and compliance are also addressed.	3	VITI 1146
VITI 1157	Principles of Agricultural Mechanization	This course will offer an introduction to mechanized components of vineyard and winery operations. Topics will include safety, fencing, trellises, tractor operations, mechanical harvesting, spraying, pruning, fertilizing, and forklift operation.	3	none
VITI 1160	Winery Equipment Operation	This course covers process technologies and process systems that are used in modern commercial wineries. The course will include lectures, demonstrations, and a two-day workshop. Overview of winemaking systems including work place safety, cleaning and sanitation procedures, winemaking equipment and materials, tanks, barrels and barrel alternatives, filtration systems, and bottling equipment. We will also touch on chillers and electrical needs.	2	VITI 1146

VITI 1190	Vineyard Safety	This course will offer an introduction to safety and procedures specific to viticulture (grape growing.) Topics will include general history of agricultural safety and health issues, ergonomics, OSHA safety rules and other safety issues specific to viticulture.	1	none
VITI 1202	Legal Aspects of Vineyard and Winery Operations	This course will introduce students to the general concepts and issues relating to the creation and operation of a winery. The course will explain general legal concepts, outline business formation and operation concepts, discuss governmental agencies and regulation, and describe legal issues and areas specifically related to the operation of a winery.	3	none
VITI 1210	Intro to Wine Microorganisms	This course is designed to introduce students to the basic principles of wine microbiology and to serve as an introduction to the variety of microorganisms frequently encountered in the wine making process. Yeasts, bacteria, and molds play vital roles in the production of wine, both beneficial and harmful. Students will become familiar with the morphology, reproduction, and sensory attributes of wine microorganisms in order to understand their influence on winemaking, and to be able to manage them effectively.	3	none
VITI 1211	Integrated Pest Management	Effective grape production depends on the grower developing a system of grape management that is appropriate for each vineyard. Decisions need to be made for how to manage all of the normal cultural practices such as planting, fertility, harvesting, and pruning as well as managing the insect, disease, and weed problems that occur either regularly or sporadically. The information in this course will address management issues related to common, expected pest problems as well as the occasional appearance of minor pest problems.	2	none
VITI 1212	Winter Vineyard Technology	This course is designed to provide students interested in the field of viticulture practical experience in winter vineyard operations. Students are required to collaborate with an approved vineyard to participate in the required field experience portion of the course, which will serve as work experience for those seeking employment in commercial viticulture.	2	VITI 1111
VITI 1213	Regional Vineyard Management	This course is a survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses.	2	VITI 1111
VITI 1214	Winter Vineyard Technology	This course is designed to provide students initiated in the field of Viticulture practical experience in spring vineyard operations. Students are required to partner with an approved vineyard to participate in the required field experience portion of the course which will serve as work experience for those seeking employment in commercial viticulture.	2	VITI 1111
VITI 1246	Intermediate Enology-Harvest/Crush	This course in the science and technology of winemaking is intended for the experienced intermediate winemaker, the winery employee interested in career development, or the advanced home winemaker that is seeking new challenges. Basic organic chemistry, microbiology, and some mathematics familiarity are recommended. There is a required 16-hour practicum component to this course. The purpose of the practicum is to provide students with hands-on experience in the winery by assisting in various winery operations. All students must identify a winery in their area that would be willing to serve a field practicum site and provide a mentor to guide the student during their hands-on experiences in their enology course.	2	VITI 1146
VITI 1247	Intermediate Enology: Post Harvest Operations	This course in the science and technology of winemaking is intended for the experienced intermediate winemaker, the winery employee interested in career development, or the advanced home winemaker that is seeking new challenges. This course will focus on advanced science and technology concepts of winemaking as it relates to post-harvest activities including blending, correction, aging of wine, clarification, fining, wine analysis, and bottling. Basic organic chemistry, microbiology, and some mathematics familiarity are recommended.	2	VITI 1146, VITI 1246
VITI 1257	Fall Wine Production Internship	This course is designed to provide a student who has completed major VESTA course sequences with an intense level of practical and realistic winery operation experiences to equip him/her with sufficient skills and work experience for an entry-level position in the wine industry. Students involved in this course will participate in a full-time crush season internship at a supporting winery. They are expected to use the time and opportunities to further their understanding of the winemaking process and common winery operations.	3	VITI 1146, VITI 1148, VITI 1160, VITI 1246
VITI 1259	Cellar Operations Technology	This 2-credit course is designed to provide students initiated in the field of enology with actual and practical exposure to the technology of wine making as is performed during the passive vineyard periods associated with winter. Students are expected to improve their understanding of the methods and science involved by on-site participation in the various activities associated with finished wine production. The course is designed to qualify as work experience for those seeking employment in commercial enology. NOTE: Two credit courses typically run for 12 weeks, however, since this is an Internship course, it runs longer to accommodate the field time that may be needed to complete the required 64 hours in the cellar.	2	VITI 1146, VITI 1148, VITI 1160, VITI 1246, VITI 1268, VITI 1257
VITI 1266	Sensory Evaluation of Wine	This is a course intended for those individuals who need to develop an understanding of the principles of sensory evaluation used in commercial wine making. It will also be of benefit to the wine enthusiast who is interested in reaching advanced levels of appreciation as well as to the producer, the wine merchant, and ultimately the enologist, who by the nature of their profession need to discern flavors and establish tasting benchmarks. Students will practice sensory analysis at home and in workshops to further their sensory evaluation skills and techniques.	3	VITI 1146, must be legal drinking age
VITI 1268	Wine and Must Analysis	This course covers principles of grape juice and wine analysis and the reasons for use of each analysis. Analyses of a practical and useful nature are chosen for the laboratory exercises demonstrating various chemical, physical and biochemical methods. Students will participate in hands-on laboratory experiences at a scheduled workshop.	3	VITI 1146, CHEM 1414
VITI 1270	Marketing for the Small Winery	This course will explore the marketing aspects of the wine industry. Focus is on the need for differentiation from competitors in angri-tourism. The outcome will include a public relations program for an existing or future winery.	2	VITI 1146
VITI 1271	Marketing for the Wine Business	This course explores the strategies and tactics that a winery would utilize to develop a strong marketing program. The students will develop a marketing plan, incorporating online technology, social media, including the application of blogs and social networking accounts to market both winery retail and wholesale markets. The course will conclude with a student presentation of a marketing package directed at a specific target market.	3	none
VITI 1272	Winery Tasting Room Management	This course will explore the management of winery tasting rooms. Focus is on the customer service and customer loyalty.	2	none
VITI 1274	Wines of the World	This is a course intended for those individuals who wish to further their understanding of wine styles and builds on the knowledge developed in VIN 266, Sensory Evaluation. It is appropriate for commercial winemakers who wish to understand how the wines that they produce compare and contrast with the most popular and important wine styles around the globe. It will also be of benefit to the wine enthusiast who is interested in reaching advanced levels of appreciation and an understanding of global benchmarks. Students will practice sensory analysis at home to further their sensory evaluation skills and techniques.	3	VITI 1266, must be of legal drinking age

VITI 1275	Financial Management for the Winery	This course integrates wine production with the management of a winery and its strategic business units. In the process wine marketing, financial management, strategic winery business management, legal structures, leadership, organization development and the breadth of the value chain are all examined as these relate to an actual winery.	3	none
VITI 1276	Advanced Tasting Room Management	This course expands on winery tasting room management, delving deeper into the “front of the house success”, focusing on tasting room design and start-up, legal and compliance issues, budgeting, finance and profitability metrics. The students will explore destination marketing, in-house and on-the-road sales practices, as well as wine club and e-commerce success. Staff training and development, leadership in the tasting room and staff retention will also be discussed. This course is designed for winery tasting room owners, managers and key sales staff who desire to expand their knowledge about the interplay of customer service, marketing and winery sales.	3	VITI 1130, VITI 1132
VITI 1280	nery Establishment and Design	Winery Establishment and Design is a 12-week course that will review the basic winery establishment and design. The course will cover county, state and federal requirements, people you need to hire and vetting, winery layout, winery economics, equipment, winery staffing and marketing. The goal of this course is to provide the student with the necessary knowledge and tools to begin a winery project.	2	VITI 1130, VITI 1132
VITI 1285	Addressing Human Resources Issues in a Commercial Vineyard or Winery	The course will explore the different specialties that fall under the broad heading "Human Resources" and the skills necessary to succeed in them. Topics such as labor relations, global HR, executive compensation, employee development, employment law, organization styles, leadership, motivation, adaptation, employee/employer rights and responsibilities, employee manual, and communications will be covered.	3	none
VITI 1290	Vineyard and Winery Safety	An introduction to safety and procedures specific to the vineyard and winery. This course will include general history of food and beverage safety and health issues, ergonomics, OSHA safety rules and safety issues and concerns specific to the grape and wine industry.	3	none
VITI 1293	Soils for Viticulture	The course will explore soil properties and behavior and their influence on vine growth and wine grape characteristics. The course focuses not only on growth and production, but on the long-term effects of viticulture on soil quality and the wider environment. The goal of the course is for students to be able to select sites for a new vineyard, and help manage soils in existing vineyards upon completion of the course.	3	none
VITI 1399	Special Topics	This course will examine selected topics of interest in Viticulture and Enology. Offered on demand.	3	none
WELD 1100	Introduction to Welding	This course will provide students with the basic fundamental skills required to understand and utilize the equipment and processes of basic welding. Students will identify and place in to practice a common set of safety standards utilized with Oxy-Acetylene Welding (OAW), Gas Metal Arc Welding (GMAW), and Shielded Metal Arc Welding (SMAW). Students will develop and place into practice the necessary skills to properly operate and trouble shoot welding equipment.	2	none
WELD 1101	Shielded Metal ARC Welding I	This course will expand on the skills obtained in WELD 1100 and include topics such as safety, equipment selection and setup, electrode selection and application, and best operating parameters for particular tasks. Students will create and refine their capacity to plan and produce quality welds, using the shielded metal arc welding process, under a variety of conditions that meet given industry-standard specifications. Students will complete a variety of skill-specific tasks and a final project to demonstrate their welding competencies.	2	none
WELD 1102	Shielded Metal ARC Welding II	This course will expand on skills obtained in WELD 1101 including safety, equipment setup, electrode selection, and operating parameters. Students will refine and further advance skill sets to produce quality welds. Visual and non-destructive testing practices are used to determine weld acceptability.	3	WELD 1101
WELD 1111	Blueprint Reading I	This course will provide students with the basic fundamental skills required to communicate as fabricators through the use of blueprints. Students will understand and identify orthographic drawings, isometric drawings, basic lines, and dimensioning techniques. Students will develop and place into practice the necessary skills to create and interpreted practical blueprints. These are building-block skills for future courses.	2	none
WELD 1112	Blueprint Reading II (Welding Symbols)	This course will expand on skills obtained in WELD 1111 Blueprint Reading I and further develop skills required to communicate as fabricators through the use of blueprints. Students will identify welding symbols and there components, and understand their relationships with orthographic drawings. Students will develop and place into practice the necessary skills to created, and interpreted practical weldment blueprints.	2	WELD 1111
WELD 1113	Blueprint Reading III (CAD Systems)	This course will expand on skills obtained in WELD 1111 and WELD 1112. Students will use CAD to create 3D models, 2D prints, assembly prints, and welding symbols. Students will develop and place into practice the necessary skills to create and interpret weldment blueprints and create a final project.	2	WELD 1111, WELD 1112
WELD 1114	Metallurgy & Fabrication	Students will study all aspects of metallurgical engineering including the three areas of extractive, mechanical, and physical metallurgy. Theory and applications of metallurgical principles as applied to the conditioning, design, identification, selection, testing, and processing of metals and alloys. Topics include heat treatment, crystal structures, phase diagrams, materials standards, specific alloys, nondestructive and destructive testing, and fabrication methods. The safe and proper operation of iron workers, sheet metal shears, oxy-fuel and plasma cutting equipment will be taught. Both manual and automatic systems will be covered. Material handling techniques are also studied.	2	None
WELD 1115	Gas Tungsten ARC Welding I	This course will expand on the skills obtained in WELD 1100 and include topics such as safety, equipment selection and setup, electrode selection and application, and best operating parameters for particular tasks. Students will create and refine their capacity to plan and produce quality welds, using the gas tungsten arc welding process, under a variety of conditions that meet given industry-standard specifications. During the course, students will complete a variety of skill-specific tasks and a final project to demonstrate their welding competencies.	2	None
WELD 1116	Gas Tungsten ARC Welding II	This course will expand on skills obtained in WELD 1115 including safety, electrode selection and operating parameters, weld characteristic of stainless steels and nonferrous metals. Students will refine and further advance skill sets used to produce quality welds. Visual and non-destructive testing practices are used to determine weld acceptability.	3	WELD 1115
WELD 1117	Gas Metal ARC Welding I	This course will expand on the skills obtained in WELD 1100 and include topics such as safety, equipment selection and setup, electrode selection and application, and best operating parameters for particular tasks. Students will create and refine their capacity to plan and produce quality welds, using the gas metal arc welding process, under a variety of conditions that meet given industry-standard specifications. During the course, students will complete a variety of skill-specific tasks and a final project to demonstrate their welding competencies.	2	none

WELD 1118	Gas Metal ARC Welding II	This course will expand on skill obtained in Weld 1117 including safety, equipment setup, electrode selection, and operating parameters. Students will refine and further advance skill sets used to produce quality welds. Visual and non-destructive testing practices are used to determine weld acceptability.	3	WELD 1117
WELD 1120	Fabrication Design and Construction	This course is intended to utilize all content and skills learned in previous courses. Students will design and fabricate projects that meet specific requirements from start to finish. Projects may include fire rings, signs, and personal projects as approved by the instructor. To complete these projects, students will demonstrate mastery of various fabrication equipment, such as a plasma cutter, press brake, grinder, and the tools they have made in previous classes.	4	WELD 1150
WELD 1128	Metal Fabrication	Fundamental sheet metal layout, bend and forming allowances, safe operation of metal fabrication equipment, and a student fabrication project are the objectives of this course.	3	WELD 1111
WELD 1130	Advanced Welding Processes	Enhanced GMAW and GTAW will be performed on non-ferrous, ferrous, and stainless steel in this course. Casting repair, pressure vessel welding and testing are also performed.	4	WELD 1101, WELD 1117
WELD 1132	Testing/Codes & Inspection	Students will study the major national codes that govern the welding industry, specifically the ASME pressure vessel code, the American Welding Society Structural Code D1.1, along with AWS codes. Students will also study the fundamentals of welding inspection techniques and the different types of destructive and nondestructive weldment testing.	2	none
WELD 1134	Welding Qualification	Students will prepare and participate in the American Welding Society's "Sense" program. The opportunity to earn the Entry Level Welder Certificate is available for students who wish to apply. Students must successfully completing industry recognized modules and performance evaluations in compliance with The American Welding Society standard to obtain full certification. During the class, students will explore various welds, welding techniques, inspection standards, and destructive tests for specific welding tasks.	3	WELD 1102, WELD 1116, and WELD 1118
WELD 1140	Trade Knowledge	This course will introduce student to fundamentals skills related to the welding & fabrication trade, which includes safety, fabrication equipment, fabrication techniques, measurement, layout, hand tools, fasteners, thread repair, and shop math. Students create and refine skill sets by producing class projects such as a nut and bolt gauge and electrode holder, which will be utilized in future classes.	4	none
WELD 1150	Advanced Metal Fabrication	Students will practice and apply skills attained in math, electronics, welding, fabrication, metallurgy, and blueprint reading classes in order to construct a final project. Through this immersion, work-simulated environment, students will be assigned a project and independently build the project from planning to final assessment.	4	WELD 1100, WELD 1111, and WELD 1140
WELD 1160	Welding Theory	This course will provide students with the fundamentals required to understand the equipment and processes of basic welding. Students will study a common set of safety standards and gain basic knowledge in Oxy-Acetylene Welding (OAW), Oxy-Acetylene Cutting (OAC), Plasma Arc Cutting (PAC), Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), and Gas Tungsten Arc Welding (GTAW).	4	none
WELD 1161	Introduction to Nondestructive Testing	This course is designed to introduce students to the five major Nondestructive Testing disciplines: Radiographic Testing (RT), Ultrasonic Testing (UT), Visual Testing (VT), Penetrant Testing (PT), and Magnetic Particle Testing (MT). Students will understand the benefits and limitations of each method as well as an overview of the various discontinuities that may be encountered.	2	none
WELD 1162	Ultrasonic Testing (UT) Level I & II	Ultrasonic testing (UT) uses waveforms to inspect welds. UT Level I includes a basic introduction to the theory and principles of ultrasound. It contains study materials related to the propagation, reflection, and attenuation of sound as well as the responses from discontinuities. UT is also used for precise thickness measurements and the basic procedure for this is covered. UT Level II explains advanced theory, application, and variables such as beam profile, near and far zones, acoustic impedance, absorption, and sound characteristics. Other subjects pertaining to angle beam inspection include refraction, mode conversion, and tip diffraction. Vertical/horizontal linearity and mode converted calibrations are covered. Examination and evaluation of several test specimens are required.	3	none
WELD 1163	Penetrant Testing Level I & II	This course contains Level I and II material covering the theories and practices involved with liquid penetrant inspection. Equipment, light meters, code and procedure reference, types, forms, and methods are discussed. Level I focuses on penetrant dyes, developers, and basic theory. Level II continues to put the knowledge earned in Level I to practice.	2	none
WELD 1164	Magnetic Particle Testing Level I & II	This course contains Level I and II study material and covers the theory of magnetic particle examination. Magnetic fields, flux leakage, magnetization processes, particles/mediums, applications, basic principles, and safety considerations are addressed. Level I will focus on the medium and magnetic theory. Level II will put the knowledge learned in Level I to practice.	2	none
WELD 1165	Radiation Safety	This course on Industrial Radiography is designed to meet the training requirements for formal certification in Radiation Safety for both X-ray and gamma radiographers. Students will become familiar with the requirements of the Department of Transportation and the Nuclear Regulatory Commission and the Suggested State Regulations for Controlling Radiation (SSRCR).	2	none
WELD 1166	Radiographic Testing Level I & II	This course covers Level I and II radiation testing, focusing on the theory and principles of radiation and their application to radiography. Subjects also included in this course include handling and processing radiographic film, radiography techniques, image quality, basic radiographic interpretation, and the safe use of RT equipment. Both X-Ray and Gamma Ray sources are analyzed along with technique development guidance and advanced radiation safety. Level II begins with a review of Level I subjects and continues with the technical production of proper radiographic imaging. Study materials focus on optimizing contrast, definition, sensitivity, film processing, interpretation, calculations, shot techniques, and utilizing acceptance criteria per relevant codes and standards. This course exceeds the criteria specified in ASNT's recommended practice.	3	none
WELD 1167	Visual Inspection Level I & II	This course's subjects include the mechanics of the human eye, illumination requirements, surface conditions, test specimen attributes, and various discontinuities and conditions that may be encountered. Both direct and indirect (remote) visual techniques are thoroughly presented and demonstrated. The different visual tools, measuring devices, and advanced VT instrumentation are discussed and demonstrated. A wide range of common applications are included. Level I will focus on weld discontinuities. Level II will focus on measuring discontinuities and determining whether or not weld is accepted or rejected.	1	none
WELD 1168	Codes and Specifications	This course will familiarize students with various codes, standards, and specifications used in the Nondestructive Testing and Inspection industry. Students will learn to interpret and classify examination results, which is paramount for Nondestructive Testing examiners and inspectors.	1	none
WELD 1350	Elective Open Lab I	With a plan in place, between instructor and student, supervised lab experience will be attainable. This course allows students to develop and implement a personal study plan to help improve their welding skills or fabricate a project.	1-6	none
WELD 1352	Open Lab	With a plan in place between instructor and student, this course allows students to develop and implement a personal study plan to help improve their welding skills or fabricate a project.	1-6	Must be declared Welding major.

WELD 2370	Topics in Welding	This course will examine selected topics of interest in Welding. Offered on demand.	1-3	none
WMST 1400	Introduction to Women's Studies	In this course, we will take an interdisciplinary approach to the study of women in the United States. Issues of race, ethnicity, class, sexual orientation and age will be important as we investigate and analyze the significance of gender in shaping women's political, economic, legal and social experiences in the U.S. MnTC Goals 5 and 7	3	NG Accuplacer Reading Score 237+
WMST 2420	Women & Religion	This course will examine the historical roles and experiences of women in a variety of religious contexts. Students will be able to demonstrate knowledge of women's religious experiences, practices and beliefs, as well as their roles and status in Judaism, Buddhism, Christianity, Islam and Alternative Religions. The women's movement that began in the last half of the twentieth century has made a significant difference in the roles of women in religion; we will consider the effects of that in America and throughout the world. MnTC Goals 5 and 7	3	NG Accuplacer Reading Score 237+

About the College

Central Lakes College – Brainerd and Staples is one of 37 Minnesota State Colleges and Universities, offering excellent, affordable education in 54 communities across the state.

We are a comprehensive community and technical college serving about 5,500 students per year. With a knowledgeable, caring faculty and modern, results-oriented programs in comfortable facilities, CLC is the college of choice for seekers of success.

Our roots are deep in a tradition dating to 1938 in Brainerd and 1950 in Staples. Communities across central Minnesota are filled with our graduates.

Central Lakes College (CLC) begins making an impact early, meeting each student at different points along their educational journey and helping them toward their chosen pathway. A robust concurrent enrollment program, well-tailored technical programs, and an associate of arts degree enables a student to start at CLC, saving time and money. Students who have earned the associate's degree may then elect to transfer to any Minnesota State four-year college or university.

The range of options for students at CLC is unique to the region and includes more than 70 program selections that will jumpstart career opportunities after graduation. Home to the North Central Regional Small Business Development Center, CLC is the center of economic development helping young businesses thrive, while it remains at the cutting edge of farm research through its Ag and Energy Center.

Mission:
We build futures.
At Central Lakes College, we-
- provide life-long learning opportunities in Liberal Arts, Technical Education, and Customized Training programs;
- create opportunities for cultural enrichment, civic responsibility, and community engagement; and
- nurture the development and success of a diverse student body through a respectful and supportive environment.

Values:
Excellence, Innovation, Inclusion, Community

Vision Statement:
Central Lakes College inspires learning, advances innovation, and transforms lives.

History
The roots of Central Lakes College run deep in both our Brainerd and Staples communities. The college's origins date back to 1938, when Brainerd Junior College opened on the third floor of Washington High School with 12 students. It operated as part of the Brainerd School District under the leadership of Emil Heintz.

With growth of enrollment, the college expanded to the basement and first floor of Lincoln Elementary School in 1957.

Across the river in Staples, the State Board of Education granted approval for an area vocational technical school in Staples. Classes started in fall 1960 under the leadership of Michael J. (Mike) Mantanich.

By 1963, liberal arts and career education began defining their individual focus. That led to Brainerd State Junior College becoming part of the new state system. The local school district retained the career programs, which becomes Brainerd Area Vocational Technical School in 1964.

The first building on the campus in southwest Brainerd (now CLC) was the first in Minnesota built specifically as a junior college in 1964. There, programs expanded, including community theatre. Under the leadership of Bob Dryden, a new Fine Arts building addition is completed, featuring a 300-seat performance space in 1971.

Just two years later, the school changed names from Brainerd State Junior College to Brainerd Community College (BCC).

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The college's footprint continues to expand with the addition of a student services and administrative areas in 1989. Two years later, the State Technical College Board combined the administration of the two technical colleges to create Brainerd Staples Technical College (BSTC).

By 1995, three state systems for higher education combined to form the Minnesota State Colleges and Universities system (now Minnesota State). This paved the way for Brainerd Community College and Brainerd Staples Technical College to merge and become Central Lakes College. A year later, a $24 million two-story addition opened as part of the newly combined college. The building featured all new technical program labs and a central core for student services.

Expansion continued in Staples when a 360-acre Heavy Equipment Campus, including a lab/classroom facility was built in 2003. Come 2007, a 30,000-square-foot service center was added.

Today, the college continues its mission in helping students "Build Futures" through inspired learning, innovation and transforming lives.

Accreditation
Central Lakes College is accredited by the Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools located at:
30 North LaSalle Street, Suite 2400
Chicago, IL 60602-2504
Phone: 800.621.7440/312.263.0456 Fax: 312.263.7462
www.ncahigherlearningcommission.org

First accredited as a single entity on July 1, 1995. The result of the merger of Brainerd Community College, first accredited in 1977, and Brainerd Staples Technical College, granted Candidate for Accreditation status in 1994.

Most recent reaffirmation of accreditation: 2012 - 13

Next reaffirmation of accreditation: 2022 - 23

Scholarships
The Central Lakes College Foundation is a nonprofit 501C-3 organization formed to solicit, receive and administer gifts, grants, bequests and donations. It provides a tax-exempt vehicle for people to donate to the college and thereby provide educational opportunities for Central Lakes College students. Private and corporate contributions are critical to fulfilling the college's missions. Persons or groups desiring to contribute to the Foundation may contact the Foundation Director. The mission of the CLC Foundation is to provide financial assistance in the form of scholarships to students at CLC. Scholarship applications are available through the Foundation office or can be submitted online at www.clcmn.edu/foundation.

Annual Notice
Central Lakes College is an open entry institution offering liberal arts and sciences and career and technical programs in the following areas of study:
• Liberal Arts and Sciences/A.A Transfer Degree
• Agricultural, Horticulture and Natural Resources
• Business and Accounting
• Child Development and Special Education
• Dental and Nursing
• Information Technology and Computers
• Law Enforcement
• Welding, Robotics and Machine Tool Technology
• Graphic Design and Videography
• Automotive, Marine and Diesel Mechanics and Heavy Equipment Operation
• Occupational Skills

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Central Lakes College is committed to a policy of nondiscrimination in employment and education opportunity. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in, programs, services, and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law.

Harassment of an individual or group on the basis of race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission has no place in a learning or work environment and is prohibited. Sexual violence has no place in a learning or work environment. Further, Central Lakes College shall work to eliminate violence in all its forms. Physical contact by designated system, college, and university staff members may be appropriate if necessary to avoid physical harm to persons or property.

Lack of English skills will not be a barrier to admission or participation. In order to eliminate barriers we take appropriate measures to assess each student's ability to participate and benefit through placement testing and counseling. Based on the assessment and counseling, students are then provided with campus services or a referral to community services to be better prepared for successful participation.

Nondiscrimination Coordinators:
Title IX Coordinator – Mary Sam, E132, 218-855-8159
Accessibility Services Coordinator – Mallori Sheik, Room E138, 218-855-8175
This document is available in alternative formats to individuals with disabilities. Consumers with hearing or speech disabilities may contact us via their preferred Telecommunications Relay Service.
The lack of English skills will not be a barrier to admission and participation.

Admissions

Admissions Policy
Central Lakes College has an open admissions policy. The college serves students from a variety of educational backgrounds in keeping with its goals of providing a quality, affordable education.

Once admitted to CLC, students may enroll in any course or program as long as individual course prerequisites are met and space for effective instruction is available. The college will guide a student's enrollment based on academic skills assessments, previous achievement and other criteria as explained in this section.

Students applying for the programs with selective admissions criteria may be required to take additional tests for admissions purposes. Students who do not meet the standards for admissions into a certain program may enroll in developmental courses designed to help them meet program qualifications.

Admission to Central Lakes College
It is the policy of CLC to admit students who are able to benefit from the educational offerings of our institution. Admission to CLC does not guarantee admission to a specific program. Fiscal and facilities considerations may limit admission to a particular program.

Admission Requirements:
1. Early application is recommended for best selection of classes at registration.
2. Online applications are available at www.clcmn.edu. Paper versions are available upon request.
3. A high school student may be admitted as a PSEO student on the basis of:
    a. College readiness as decided by the college, and/or
    b. Recommendation by the student's high school principal or designee.
4. Admission to the Heavy Equipment, Nursing and Criminal Justice programs require additional criteria. Contact the Admissions Department for details.
5. Heavy Equipment Maintenance and Operation and Diesel and Heavy Equipment Mechanics students are required to take a drug test prior to registration for classes. Acceptance into a program major is on a space available basis. See "PSEO" section for details.

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Immunization
Minnesota Law (M.S. 135A.14) requires that all students born after December 31, 1956 and/or graduated from high school prior to 1997 and enrolled in a public or private postsecondary school in Minnesota be immunized against diphtheria, tetanus, measles, mumps, and rubella.

The student must provide the college with immunization information required by law prior to the commencement of student's second semester. A registration hold will be placed on records for students not providing immunization information.

The information is made available for review by the Minnesota Department of Health and the local community health board. Students wishing to file an exemption to any or all of the required immunizations should request a separate form for required physician and notary signatures.

Immunization against Communicable Diseases
It is strongly recommended that all entering freshmen and transfer students be immunized for measles and rubella before they register for classes at CLC.

College Readiness
Students are encouraged to take College and Career Studies courses as early in their college career as possible. These College and Career Studies skills are prerequisites for some courses.

Assessment Testing for College Readiness
Central Lakes College is dedicated to supporting student success. As part of that commitment to student success, Central Lakes College adheres to the Minnesota State policy to assess the reading and mathematical skills of new students in an attempt to match current skills with the CLC curriculum.

CLC shall require all incoming students to complete assessments that include measures of reading comprehension and mathematics on system-endorsed tests. The incoming student assessment shall not be used to make college admissions decisions. Placements received as a result of assessment testing are mandatory.

Students with documented disabilities shall be tested with system-endorsed, adaptive tests through Accessibility Services. Please contact them at 218-855-8175 or accessibilityservices@clcmn.edu to inquire.

Self-identified English Language Learner (ELL) students can select to take demonstrate English proficiency by one of the following:

- Official TOEFL (Test of English as a Foreign Language) examination scores. Minimum composite score requirements are: 61 (Internet based) 173 (computerized) or 500 (pencil/paper)
- Official ELL results from an ELL center.
- Completion of the ELL Accuplacer assessment. ELL students will be assessed in all areas of reading, writing, sentence meaning and listening
- ELL students may select an English for Academic Purposes course, which focus on reading, writing, listening and speaking.
- The lack of English skills will not be a barrier to admission and participation.
- Exemptions: Students who have indicated on their admissions application that they are not seeking a degree, diploma, or certificate do not need to take the assessment tests unless they register for: (1) classes in English and mathematics; or (2) classes requiring a prerequisite based on scores/placements received during assessment testing. Information regarding prerequisites can be found in the course listing section of the semester schedule. (NOTE: Students indicating that they are not seeking a degree, diploma or certificate are not eligible for financial aid.)
- Students enrolled in partnership agreements and/or management programs (FBM), non-credit continuing education or customized training classes are exempt from testing.
- Students with college-level coursework in English composition or mathematics shall have documented credits evaluated to determine exemption status. Students taking six or fewer credits within one term are exempt from testing unless they register for English or mathematics classes.
- Students may transfer assessment scores to CLC from other Minnesota State institutions provided that they have been taken within the past three years for reading and past two years for math on Minnesota State system endorsed tests. Scores will then be evaluated for placement into CLC coursework.

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Minimum Standards for Access to General Education Courses
CLC shall adhere to Minnesota State guidelines for placement into college level courses in reading and math. Students placing below college level coursework shall be placed into developmental coursework as indicated. CLC instructors shall evaluate student's progress through curriculum and determine next sequenced placement. Developmental Education Students placing into developmental education curriculum shall be provided coursework that will prepare them for entry into college level courses or technical/occupational programs. Annual Report on College Readiness CLC shall annually report its assessment data, according to system reporting procedures.

Accuplacer Testing Exemptions
Students seeking exemption from testing based upon previous college coursework must work with a CLC Advisor to complete the Assessment Exempt process. Students holding a two-year or four-year degree from an accredited U.S. institution may be exempt from assessment testing and may be determined to meet the program entrance requirements for a technical program. Students seeking exemption from testing based on previous degrees must work with a CLC Advisor to complete Assessment Exempt Process. Students seeking exemption from testing based on ACT/SAT subscores that are within two years old must submit documentation for review to Assessment Center staff. Students enrolled in partnership agreements and/or management programs (FBM), non-credit continuing education or customized training classes are exempt from testing.

Course Placement in Developmental Education
Students shall enroll in the developmental coursework in which they were placed. Subsequent progression will be determined by the instructor and prerequisites. Retesting of current students will occur only if instructor recommended. For technical programs, students must meet the requirements to begin program coursework. If developmental coursework is required, developmental coursework must begin during the first semester of enrollment.

Post-Secondary Enrollment Options (PSEO) Procedures
The Post Secondary Enrollment Options program (PSEO) was established as an enrichment program for high school juniors and seniors. PSEO students are expected to perform to the standards to which the college's non 241 PSEO students are held accountable. These include policies regarding academic standing and student conduct.

PSEO Admissions Criteria
12th grade student/Senior must have a high school GPA of 2.5 or greater.
11th grade student /Junior must have a high school GPA of 3.0 or greater.
10th grade student /Sophomore: a student who is in 10th grade and has attained a passing score on the 8th grade Minnesota Comprehensive Assessment in reading. Students who do not meet the standards listed above must request an appeal through the Admissions Department.

PSEO Admissions Process
1. Student applying as a PSEO student must provide the following information to the Admissions Department:
    a. CLC Application for Admission
    b. Completed PSEO form signed by student, high school official and parent (if under 18).
    c. Current high school transcript

PSEO Enrollment Information
- PSEO students shall not register for developmental courses (college courses numbered below 1000 or Technical Education courses numbered below 1000).
- PSEO students will register on assigned registration days according to total credits earned. Students must complete a post secondary option form each semester, which must be signed by a high school official and parent (if under 18). This form must be submitted to the Admissions Department.
- Post Secondary Enrollment Option (PSEO) students are allowed to charge required books and a reasonable amount of required supplies that will be used up in their courses. Books charged by PSEO students are the property of Central Lakes College. Books must be returned to the bookstore at the end of the semester.
- PSEO students are not eligible for financial aid, CLC scholarships or work-study.

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PSEO Academic Standard for GPA and Course Completion
PSEO applicants who do not meet the admissions requirements and are denied acceptance have the right to appeal the decision to the college. An appeal must include:

a. A written statement by the student defining how they can be academically successful as a PSEO student at CLC.
b. A letter of recommendation from the high school counselor or principal stating the student can be academically successful at CLC and that the high school supports the student's admission to the college. Notification of the decision will be sent to the student no later than the end of the fifth day of the semester.

PSEO Students with Disabilities
PSEO applicants with disabilities must follow the procedure outline for all PSEO applicants. Students wishing to receive disability services must provide the Accessibility Services Office with current documentation. Students with disabilities, who are appealing a denial for admissions, may provide letters of support from their Special Education teacher for consideration.

Admission of Transfer Students
Students transferring to Central Lakes College from other colleges must request official transcripts of all previous college work be forwarded to the Central Lakes College Office of Students Records. Students who have attended other Minnesota State institutions should complete the eTranscript Request form to alert CLC to conduct a transfer review of their Minnesota State credits.

Admission of International Students
International applicants (new and transfer) who are not permanent residents or citizens of the United States may be considered for admissions after submitting the following:

a. A completed International Student Application for Admission.
b. Official transcripts from each high school/secondary school, college, university, and ESOL program attended. Transcripts must be translated into English, officially stamped, and mailed by the institution.
c. Documentation of English proficiency by providing one of the following:
d. Official TOEFL (Test of English as a Foreign Language) examination scores. Minimum composite score requirements are: 61 (internet based) 173 (computerized) or 500 (pencil/paper)
e. Official ESOL results from an ESOL center. Must have completed 109 for admissions or
f. A grade C or better in a college level English.
g. Completion of the ESOL Accuplacer assessment. ESOL students will be assessed in all areas of reading, writing, sentence meaning and listening
h. Financial Documentation: Declaration of financial resources in U.S. currency to ensure that there are sufficient funds available to cover applicant's school and living expenses for one year. Please note that students can not rely on financial aid from the college or employment in the U.S. as a source of income.
i. U.S. Form I-134 Affidavit of Support is required if a third party provides some or all support while attending CLC.

Internal Student Application Deadline:
Fall Semester: May 1 (F-1 Transfer students – July 1)
Spring Semester: October 1 (F-1 Transfer students – December 1)

International students on an F-1 visa must:

1. Purchase the Minnesota State International Student Accident and Illness Insurance Plan upon enrollment.
2. Provide written proof of immunization against diphtheria, tetanus, measles, rubella, and mumps as required by Minnesota Law (M.S. 135A.14)
3. Be enrolled full time completing at least 12 credits each term.
4. Pay tuition in full by required due dates.

Admission of English as a Second Language and Other Language Learners
Self-identified English requiring ELL services and seeking admission to the college may be considered for admission after submitting the following:

1. A completed Application for Admission.
2. A high school diploma, G.E.D. Official school transcripts from high school or postsecondary institution; transcripts must be translated into English and officially stamped and mailed.
3. Written proof of immunization.

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International Students who are unable to meet the acceptance criteria for Admission may appeal for admission into Central Lakes College. For more information, please contact the Central Lakes College Admissions Department.

The lack of English skills will not be a barrier to admission and participation.

Determination of Residence
Students who seek to qualify for in-state residence status must meet the following threshold requirements:

a. Students must have resided in Minnesota for at least one calendar year immediately prior to applying for instate tuition; and
b. Residence in Minnesota must not be merely for the purpose of attending a college or university.

Students determined to be a non-residents at the time of application, may appeal their status by completing an Admission Appeal.

Reciprocity
Residents of South Dakota, North Dakota, Wisconsin and Manitoba, Canada are eligible to attend Minnesota public institutions under the reciprocity agreements with the State of Minnesota. CLC charges in-state tuition to all students unless another state's reciprocity agreement dictates otherwise.

Program Major Changes
Students who are planning to change programs need to follow the following process:
1. Complete a Program Change form (available online under Admission/forms).
2. It is recommended that students meet with an Advisor to discuss a program change.
3. Submit the completed Program Change form to the Admissions office.

Students are accepted into programs on a first-come, first-serve basis by the date of application or by the date of the Program Change form. Students who do not follow the proper procedure to change programs may be placed on a waiting list for their desired program if space is not available.

College in the Schools (CIS)
The College in the Schools Program (CIS) was established as an enrichment program for high school students giving them an opportunity to take college classes in their high schools. Students are expected to perform to the standards to which the college's non-CIS students are held accountable. These include policies regarding academic standing and student conduct.

College in the Schools Criteria
A high school junior/senior applying as a CIS student must meet the following criteria:
1. 12th grade/senior must have a GPA of 2.5 or greater
2. 11th grade/junior must have a GPA of 3.0 or higher
3. 9th or 10th grade must rank in the upper one-tenth of their class or attain a score at or above the 90th percentile on a nationally standardized, norm-referenced test, or letter of recommendation from high school official.

CIS Enrollment Information
1. Students must submit an application and high school transcript to the representative at their high school
2. CIS students receive books at no cost for their classes.
3. CIS students are not eligible for financial aid, CLC scholarships or student employment. CIS Admissions Appeal Process CIS applicants who do not meet the admissions requirements and are denied acceptance have the right to appeal the decision. Students will contact their high school representative for details on appeal process.

What constitutes an Appeal for Admission into CIS?
An appeal must include a letter of recommendation from the high school counselor or principal stating the student can be academically successful at CLC and that the high school supports the student's admission to the college. CIS Academic Standard for GPA and Course Completion CIS students are required to maintain a minimum grade point average and course completion rate in order to continue their participation in the program. CIS students must maintain a cumulative GPA of 2.0 (C average) in their CLC courses and complete 67% of the courses that they attempt. If a student falls below either of these levels, they will receive a letter indicating that they are dismissed from the PSEO program. Under extraordinary circumstances appeal or dismissal from the CIS program will be re-considered.

Registration

Records and Registration Services
Many of the Records & Registration services such as adding and dropping courses, changing your address, and printing your own unofficial transcript are now available on the Web. For Records & Registration Services on the Web, go to www.clcmn.edu and click on the E-Services. To access registration services on the Web you will need your StarID & Password. You must activate your StarID before you can use it. Your Password is considered your "signature" and must be kept confidential since it will allow access your private data. If you have any problems activating or using your StarID, contact the Minnesota State ITS Help Desk at 1-877-466-6728.

Registration Procedures
Students may register for courses by using the eservices. Registration procedures vary depending upon whether the student is a new, returning, or in a program at the time of enrollment. When enrollment has discontinued for one year, the student is subject to the degree, diploma, or certificate requirements stated in the program that is current at the time of re-enrollment. Students who wish to enroll in more than 19 credits fall or spring semester, must have a 'Request for Additional Credits' form signed by an advisor. Students who wish to enroll for more than 9 credits during the summer semester, must have a 'Request for Additional Credits' form signed by an advisor. The college reserves the right to withhold registration privileges from students with unpaid college financial obligations.

Add/Drop Courses
Students are entitled to have the opportunity to attend one class session for each registered, for-credit course, without obligation. Students are permitted to add and drop courses up to the first five days of the semester, or one business day after the first class meeting, whichever is later. Students are financially obligated for any classes not dropped after the fifth business day of the term, or one business day after the first class session, whichever is later and students are not able to have those courses removed from their academic record. For purposes of this policy, business days are defined as Monday through Friday (excluding posted holidays).

Repeating a Course
A course may be repeated for an improved grade. Only the highest grade earned will be counted toward a degree and in the computation of the overall numerical grade point average. This policy applies to all grades including "F" grades. However, both the original and the repeated grade will appear on the student's transcript. Tuition and fees will be charged each time.

Preferred Name Policy
CLC Policy 1B.1.3 Preferred Name Policy. CLC recognizes and supports students who wish to use preferred names where legally permissible. Students may designate a preferred name to be used in the course of college business and education. Preferred Name Change Forms are available in the Office of Records and Registration.

Transcript Requests
The Records and Registration Office maintains student academic records. Transcript records show all course work for which a student was registered during each term of enrollment and the grades awarded for those courses. Requests for transcripts can be made in person, by fax, by mail or electronically. Transcript requests will not be accepted via e-mail. If an official Central Lakes College (CLC) transcript is needed for a Minnesota State college or university, that institution may be able to obtain the CLC transcript electronically.

Please contact that institution directly for further information. A complete listing of the Minnesota State colleges/universities can be found at www.minnesotastate.edu/campuses. Unofficial transcripts may be obtained on the CLC registration website www.clcmn.edu/registration. Students will need their StarID and password to access their transcripts.

Transcript Hold
Academic student transcripts are not released for students with financial obligations. This includes unreturned library materials, media equipment and physical education equipment and unpaid tuition, fees or bookstore charges.

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Academic Grading System
The college operates on a semester system. After each semester students may retrieve their grades from the Central Lakes College website www.clcmn.edu/registration.

The following grades are used at CLC:

Grade	GPA	Description
A+	4.0	Excellent
A	4.0	Excellent
A-	3.67	
B+	3.33	Above Average
B	3.0	
B-	2.67	
C+	2.33	
C	2.0	Average
C-	1.67	
D+	1.33	Minimum Passing
D	1.0	
D-	0.67	
F	0.0	Failing (For courses #1000 level or above)
FN	0.0	Non-attendance
FW	0.0	Unofficial Withdrawal
S	0.0	Satisfactory
U	0.0	Unsatisfactory
W	0.0	Withdraw (Student generated)
I	0.0	Incomplete
IP	0.0	In Progress
AU	0.0	Audit (Must be student generated at time of registration)
NC	0.0	No Credit (For courses numbered below 1000)

Definitions:

- The “I” grade is an agreement between the faculty member and the student. The student may be given up to one semester to complete the course requirements. An instructor will submit a grade change once the course requirements have been met. Students not completing the course requirements after the one semester will automatically receive an “F.”
- Students who have not attended the first 5 days of class will receive an “FN” grade and will not receive financial aid for this class.
- The “FW” grade means the student stopped attending class prior to 60% of the term being completed.
- The “S” grade represents average achievement of “C” or above. Arrangements for “S” grades must be made with the instructor.
- Credits of “S” will be limited to 30% of the total credits for the degree, diploma, or certificate.
- The “AU” grade means the student will audit the class. At the time of registration the student must indicate that he/she chooses to audit a class. The audit permits attendance and participation in course activities. No credit is earned for the audited course, and financial aid does not cover the course. However, tuition and fees remain the same. Regular attendance without registration is not authorized.
- Credit: The unit by which academic work is measured.
- Registered Credits: The total number of credits for which a student is officially enrolled at the end of the registration drop/add period of each semester.
- Earned Credits: Successfully completed credits.

Grade Point Average (GPA)
The grade point average (GPA) is determined by adding all grade points earned and dividing by the sum of all credits attempted in courses where letter grades of A, B, C, D, or F were received. Courses with grades of I, W, IP, S, U, AU, NC, and all transfer grades do not apply toward GPA calculations. A semester example is shown below.

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Address Changes
Students may now change their address and phone number using eServices. Students are responsible for keeping their address current with Central Lakes College.

Classification of Students
Students are not required to take a minimum number of credits each semester. However, to make progress toward the completion of a 60-credit associate degree or diploma within a two-year time frame, students must complete an average of 15 credits each semester.

Students planning to take more than 19 credits fall and spring semesters and more than 9 credits summer semester must obtain approval from an advisor. For reporting purposes, students are classified according to the following:

- Full-time: A student who is enrolled in at least 12 credits during a semester.
- Part-time: A student who is enrolled in 11 or fewer credits during a semester.
- Freshman: A student who has completed 29 or fewer semester credits.
- Sophomore: A student who has completed 30 or more semester credits.

Visiting Students
Central Lakes College allows students registered at other Minnesota State colleges and universities to register for courses at Central Lakes College as long as those courses traditionally have not had demand from Central Lakes College admitted students, which historically had exceeded available seating capacity in the course.

Visiting students are not required to apply to Central Lakes College to register for their selection of courses and are permitted to register for a maximum of 22 credits among all Minnesota State colleges and universities. Visiting Students are not eligible for Financial Aid at Central Lakes College, but may be eligible for federal financial aid at their home college or university.

Graduation Requirements

1. Candidates for degrees, diplomas and certificates must comply with the following criteria:
2. Complete all degree, diploma and certificate program requirements. Credits must be earned in courses numbered 1000 or above.
3. Achieve a cumulative grade point average (GPA) of 2.0 or better on a 4.0 grading scale.
4. Fulfill all financial obligations to the college.
5. Complete one-fourth of their credits at Central Lakes College.
6. Submit an “Application for Graduation” form to the Records and Registration Office the semester before graduation.
7. Students who receive a 3.25-3.74 cumulative GPA will graduate with honors. Students who receive a 3.75-4.0 Cumulative GPA will graduate with high honors.

For the graduation ceremony, honors and high honors are determined at the end of fall semester. At this time, spring grades are not included.

Transfer of Credit
Students seeking a degree, diploma or certificate that have attended a previous college must have all official transcripts sent directly from that college to Central Lakes College Records and Registration. If the transcript is hand-delivered by the student, it must be delivered in an unopened college envelope. Student copies and faxed transcripts are not considered official. A course syllabus or course outline may be requested to determine course transferability.

Courses completed from colleges or universities which do not possess regional accreditation will be considered on an individual basis for evaluation but do require a syllabi or course outline for the course. Other documentation may be required. Transfer of credits shall be accomplished in accordance with Minnesota State Colleges and Universities policy and the policy of Central Lakes College. Once a course has met the criteria necessary for inclusion in the Minnesota Transfer Curriculum in any area of emphasis, the course must be accepted for full credit in that area of emphasis at all Minnesota State colleges and universities.

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Lower division courses (100, 200, or 1000, 2000 numbered) completed with a grade of “D-” or better at regionally accredited colleges will be accepted in transfer. “S” grades will be accepted if the transcript legend designates the “S” grade equals a “C” grade or higher.
Not more than six upper-division (300, 400 or 3000, 4000 numbered) semester credits may be used in transfer.

Your Rights as a Transfer Student
1. To receive a clear, understandable statement of an institution’s transfer policy.
2. To receive a fair credit review and an explanation of why credits were or were not accepted.
3. To appeal a transfer decision.

Transfer Appeals Process
1. Student completes the Transfer Appeal Form indicating they would like to appeal a transfer evaluation decision.
2.The CLC Registrar will review the Transfer Appeal and notify the student of the outcome of the appeal in writing.
3.If the student is not satisfied with the decision of the college, they have the right to appeal to the Vice President of Academic and Student Affairs. (Please contact the Transfer Specialist for the appropriate paperwork.)
4.If the student is not satisfied with the decision of the Vice President of Academic and Student Affairs, they have the right to appeal to the Senior Vice Chancellor of Academic and Student Affairs at Minnesota State using the System Appeal Form. This decision is final. (Please contact the Transfer Specialist for assistance with completing the appeal.)

For more information, please refer to Procedure 3.21.1-Part 7, Subpart B-System level appeal at: www.Minnesota State.edu/board/procedure/321p1.html.

Credit for Military Experience
An enrolled student may request an evaluation of military experience and education for college credit from an official military transcript.

This is evaluated and awarded by the Registrar according to the standards of the American Council on Education (ACE), the American Association of College Registrars and Admissions Officers (AACRAO), and the policies of Central Lakes College. Contact the Records and Registration Office for information.

Credit for Advanced Placement Testing
Central Lakes College will award credit for Advanced Placement testing provided the student earned a score of 3 or above on the exam. The amount of credit granted will not exceed the credit granted for an equivalent course or course sequence offered by CLC.

Approved credits will be transcripted as “Advanced Placement” credits. Students wishing to apply for Advanced Placement credit should request to have test results mailed to Records and Registration.

Credit for CLEP
Credit for both subject and area examinations of CLEP (College Level Examination Program) will be evaluated for credit according to the recommendation of the American Council on Education and according to the policies of Central Lakes College. Students wishing to apply for credit should have results mailed from CLEP directly to the Records and Registration office. Approved credits will be transcripted as “CLEP” credits. Information about CLEP is available in the Counseling Center.

Credit for Advanced Standing Certification
Central Lakes College has a number of course equivalency agreements with high schools. These articulation agreements allow students to experience advanced learning that can be used in their college career. Students are subject to the current articulation agreement that is in effect at the time of their enrollment at Central Lakes College. Advances Standing Certification credits are transcribed showing total credits and identified as “Advanced Standing Certification" credits. Students who are interested in further information should contact their high school counselor or the Records and Registration Office of Central Lakes College.

Credit by Evaluation
If a student is confident that he/she has the competencies needed to meet the objectives for a diploma program course, he/she may make a request for Credit by Evaluation by following these steps:

1. Contact the instructor of the course you would like credit for to see if this option is available.
2. If the student decides to proceed, he/she should complete the Credit by Evaluation form
3. After the student completes the form, the VP of Academic Affairs or designee will assign the appropriate instructor to administer the evaluation. The evaluation may be oral, written, demonstration, or a combination of these.
4. The student will go to the cashier to pay the appropriate non-refundable fee. Students are reminded that financial aid does not cover any of the Credit by Evaluation fees.
5. The student will then meet with the assigned instructor to set up the test time and finalize criteria for the evaluation.
6. The examination will be administered to the student.
7. The instructor will return the Credit by Evaluation form to the VP of Academic Affairs who will ensure the credits are appropriately transcribed.
8. Only the grade of “S” will be allowed for Credit by Evaluation courses.

Withdrawing from a Course
Students may withdraw online using e-services by selecting the “drop/withdraw” function after selecting the course you wish to withdraw from. When a student withdraws from a course, his/her transcript will show a “W” grade for the course. The last date to withdraw from a course is course specific. This information is located on the course webpage in eServices. While withdrawing from a course does not affect a student’s GPA, the student needs to complete 67% of his/her attempted credits to remain in good academic standing at Central Lakes College. The college strongly recommends that before a student withdraws from a course, he/she should first meet with an advisor. No refunds are given for withdrawing from individual courses.

Tuition & Fees

Tuition & Fees
Please visit the Business Office web page for up-to-date tuition rates, fees and policies.
Central Lakes College does not mail tuition statements. The act of registration is considered an acknowledgement on the part of the student that he/she will attend and pay for the registered courses. It is the responsibility of the student to review their account in Student e-Services and pay their bill by the due date.

- Tuition is due 15 days prior to the start of the semester.
- Tuition payments must be received, in the Business Office, by the tuition due date.
- Financial Aid is disbursed on the 12th day of the semester. For current student account information please check online at www.clcmn.edu. Select e-Services at the top of the screen and log in using your StarID.

Tuition
For planning purposes, students may estimate tuition and fees at $200 per credit.

- Central Lakes College charges in-state tuition to all students unless another state’s reciprocity agreement dictates otherwise.
- Tuition for online courses is an additional $30 per credit.
- Certain technical and lab courses may be charged a higher rate of tuition.
- Additional charges may apply depending on the courses for which a student registers.

Mandatory Fees

- Parking Fee: Students are charged $2.50 per credit and a maximum of $40 per semester for on campus parking. This fee supports parking lot and sidewalk construction, improvements and maintenance. This fee is not assessed for online or off campus credits, nor is it assessed for summer term.
- Statewide Student Association Fee: This fee is $0.35 per credit and supports the Minnesota State Colleges Student Association (MSCSA).

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Other Fees

- Activity Fee: This fee is $5.45 per credit and supports campus cultural activities, student senate and student clubs. The fee maximum is $112.50 per semester.
- Athletics Fee: This fee is $4.20 per credit and supports student athletics and free access to home games. The fee maximum is $55 per semester
- Technology Fee: This fee supports student and classroom technology. The fee maximum is $10.65 per credit.
- Service Charges: Charges for items that become the personal property of a student and have an educational or personal value beyond the classroom or for services for or on the behalf of the students. The actual cost shall be the allowable maximum charge. These charges may include but are not limited to testing fees, assessment fees, processing fees, or other course related fees.

Senior Citizen Charges and Fees

As defined in Minnesota Statutes §135A.51 a senior citizen is a legal resident of Minnesota who has reached 62 years of age before the beginning of any term, in which a course of study is pursued. Senior citizens pay an administrative fee of $20 per semester credit in lieu of tuition. Senior citizens are exempt from student activity fee and athletic fee, but are required to pay all other applicable student fees. Senior citizens who audit a course do not pay the $20 administrative fee, student activity fee, athletic fee, technology fee, or student association fee, but are still responsible parking fees and all other applicable fees.

Due Dates

The tuition due date is 15 business days prior to the start of the term. Start of the term is the first day classes are held. Registration Cancellation will process for unpaid credit registrations on the 6th business day of the term. Full payment is due 25 business days after the start of the term unless the student has obtained an approved tuition and fee payment plan. Financial aid disburses on the 12th day of the term.

Registration Cancellation

The college shall cancel student registration for all credit courses unless one of the following conditions has been met:

- The student has paid at least 15% of tuition and fees due or made a $350 down payment towards tuition and fees;
- FAFSA (Free Application for Student Aid) has been received by the college;
- The student has enrolled in a Nelnet payment plan;
- The student has received an approved third party funding deferral and the college is in possession of an authorization, in an amount adequate to cover charges; or
- The student has received an approved waiver or scholarship toward tuition and fees due.

The registration cancellation process occurs on the 6th business day of the term, after the free add/drop period has ended.

By meeting the minimum criteria of the payment policy, registration is secured and students should attend their courses. If plans change and the student will not be attending, it is the student's responsibility to login to e-Services and drop/cancel their course registration by the end of the 5th day of the term. Students should not rely on the Registration Cancellation process to drop their courses for them.

Payment Plans

Nelnet Payment Plan: Central Lakes College offers Nelnet as a convenient budget plan. The cost to budget an interest-free monthly payment plan is a $24 per semester, non-refundable enrollment fee. Tuition, fees and books may be included in the plan. Payments are made through an automatic withdrawal from either a checking, savings, or credit card account. Payments are processed on the 5th or 20th of each month. Additional information is available at www.clcmn.edu/businessoffice/.

CLC Payment Plan: Student accounts not paid in full or enrolled in a Nelnet payment plan, by the 25th day of the term are past due, are considered to be on the CLC internal payment plan and are charged a $30 payment plan fee. After the fee is applied, students have until the last day of the term to pay their account in full.

Unpaid Balances, Holds and Late Fees

An Unpaid Balance Hold is applied to accounts on the 25th day of the term. This hold prevents registration for additional courses at any Minnesota State college or university. Payment in full is required before you may register for subsequent

courses and before the hold is removed. Accounts not paid in full by the end of the semester are charged a $50 late fee and could be referred to Minnesota Department of Revenue for collections. After referral, additional collection fees are applied to the past due account.

Deferment for Textbooks and Course Materials
Bookstore charging is open 4 weeks each term; beginning 3 weeks prior to the start of each term and ending the 5th day of the term. Students that have met the minimum tuition payment criteria, and are not in danger of having their course registrations cancelled, may charge up to $1,000 in the campus bookstore for textbooks and related supplies. A picture ID (student id, driver's license) and a course schedule are required to charge books. Books can also be purchased online at clcbookstore.com, and charged to financial aid, PSEO or credit card.

Dishonored Checks/NSF Fee
Checks will be considered NSF/dishonored after they have been presented to the bank twice and are returned to Central Lakes College unpaid due to non-sufficient funds, closed account, stop payment, etc. Dishonored checks will be backed out of the account to which they were deposited and the NSF fee will be charged. If the reversal of the receipt causes the account to become unpaid after the due date, applicable late charges will also be added to the account. The NSF fee is $35 and is subject to change without notice.

Students' Receiving Financial Aid
The fee statement does not list the amount of financial aid a student is eligible to receive. It shows the amount of tuition and fees owed. The financial aid award letter lists the types and amounts of funding a student is eligible to receive based on the number of enrolled credits. The two documents should be compared to determine if the student will personally owe the college for any of the tuition costs.

A separate master loan promissory note must be completed in order to borrow a student loan. If you decide to borrow a student loan, there are new regulations from the Federal Government regarding loan disbursements:
• For all borrowers, a single term loan (i.e. fall semester) must have two disbursements. The first disbursement will be in the first half of the term, and the second disbursement will occur after the midway point.
• For first-time borrowers, the first disbursement will be delayed until after the 30th day of the first term. Attendance is required to earn 100% of your financial aid award. Your record is reviewed to ensure compliance financial aid rules.

If you do not complete your courses, you may be required to pay back a portion or your entire financial aid award. Financial aid recipients may not use their current aid to pay unpaid balances from previous academic years.

Refunds for Dropped Classes
Students are entitled to have the opportunity to attend one class session for each registered, for-credit course, without obligation. Subject to the refund for full withdrawal provision, students are financially obligated for any classes dropped after the fifth business day of the term, or one business day after the first class session, whichever is later. Business days are defined as Monday through Friday (excluding posted holidays). If a student is financially obligated for a dropped class, the student may petition Central Lakes College to apply the amount of the tuition and/or fees for the dropped class to the cost of an added class for the current term.

For courses less than three weeks in length, the no-obligation drop-and-refund period is one business day after the first class session for each for-credit course.

Refunds for Withdrawals
Individual courses are non-refundable after the fifth day of the semester. You are responsible to drop any courses you do not plan to attend by the published deadline.

You may be eligible for a partial refund if you withdraw from **ALL** courses by the published dates.
Fall and Spring Term Refund Percentage
1st through 5th day of semester 100%
6th through 10th day of semester 75%
11th through 15th day of semester 50%
16th through 20th day of semester 25%
After 20th day of semester 0%

Summer Term Refund Percentage
1st through 5th day of term 100%
6th through 10th day of term 50%
After the 10th day of term 0%

Waivers
The president may waive amounts due to Central Lakes College for the following reasons:

- Employee benefit provided by a collective bargaining agreement.
- Death of a student
- Medical reasons
- College error
- Employment related condition
- Significant personal circumstances
- Student leader stipends
- Course conditions (A course condition exists when the location or timing of the course results in the student not being able to use the services intended by a fee).
- Natural disasters or other situations beyond the control of the campus.
- The president may waive amounts due to Central Lakes College for individual institutional waivers as approved by the Board.
- Central Lakes College shall define the terms under which any authorized waiver will be granted. Central Lakes College maintains documentation for all waivers.

Central Lakes College, in accordance with Board policy, cannot waive the MSCSA student association fee.

Appeals for Tuition and Fee Refund
After the drop/add period has expired, a refund of all or part of the tuition paid may be given under certain circumstances. Students may apply for an Administrative Refund for the following reasons only:

- Medical reasons: Injury or illness that requires a prolonged absence. A doctor's statement, on physician's letterhead, is required and must declare that the medical condition impairs the student's ability to attend or complete classes.
- Significant personal circumstances defined as a life event beyond the student's control that can be corroborated by an independent professional, such as a social worker, lawyer or law enforcement agent.
- Military duty (letter of assignment or notice of re-call is required).
- Death in the immediate family (that can be documented).

Financial aid is based on the number of registered and paid credits. If an Administrative Refund is approved, a student's financial aid may be reduced, which would require the student to repay a portion of his/her financial aid. Students need to contact the Financial Aid Office before applying for a tuition refund to determine if their aid package will be impacted.

If an Administrative Refund is granted, classes are dropped, no grades are awarded and the student's transcript is not impacted. Appeal forms are available from the Financial Aid Office and the Business Office. Forms must be completed and signed by the student.

- Forms must be completed and signed by the student.
- Appeals must be made within ninety (90) calendar days of the end of the semester for which the debt was incurred. Appeals will not be considered for debt greater than ninety days old. A committee reviews all Administrative Refund Appeals.

Financial Assistance

Financial Assistance
Central Lakes College is dedicated to bringing the highest quality of education within reach of every person who has a desire to pursue a college education. The Financial Aid Office at CLC has developed a comprehensive financial aid program based on federal, state, and institutional resources to help cover the cost of education. CLC annually awards assistance to about 70 percent of its student body.

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Therefore, no prospective student should hesitate to apply for admission because of financial circumstances. The CLC Financial Aid staff encourages all students to apply for financial aid. For the most current information regarding Financial Aid please visit the CLC website at www.clcmn.edu/financialaid. CLC has a financial aid office on each campus.

Eligibility Requirements: Unless otherwise stated, students receiving financial aid must:

1. Demonstrate financial need, as determined by the results of the Free Application for Federal Student Aid (FAFSA);
2. Have a high school diploma or GED;
3. Be enrolled and attend class as a regular student in a degree program of at least one academic semester in duration that leads to a certificate, degree or other recognized credential and prepares students for gainful employment in a recognized occupation;
4. Maintain federal and state regulations requiring that all persons receiving financial aid meet the college's Standards of Academic Probation and Suspension.
5. Be a U.S. citizen or an eligible non-citizen;
6. Not be in default on any student loan or owe a refund to any student grant program;
7. Be registered for Selective Service (if required).

How is Eligibility Determined?
Most financial assistance is awarded on the basis of financial need and may include a combination of the various types of aid. Need is defined as the difference between the cost of attending Central Lakes College and the available resources of the student and student's family to meet these costs (determined by the results of the Free Application for Federal Student Aid).

How to Apply for Financial Aid:
The Free Application for Federal Student Aid (FAFSA) is available after October 1 of each year. (The FAFSA needs to be completed online each year the student is in school.) If you have Internet access, you can file a FAFSA at www.studentaid.gov. A paper FAFSA may be requested by directly contacting the US Department of Education. Please contact the Financial Aid office if you have questions.

Students who have a completed financial aid application on file with the college by June 1 receive priority consideration for campus-based aid (Federal Supplemental Educational Opportunity Grant (FSEOG) and student employment). After June 1, applications are reviewed on a first-come, first-serve basis. Separate applications are processes are needed for Post-Secondary Child Care Grant program, Alliss Grant, Foundation Scholarships and any student loan.

Types of Financial Assistance
Financial aid comes in three basic categories: Grants and Scholarships, Student Employment and Loans.

1. Grants and Scholarships:
   a. Federal Pell Grant - This is a federal grant awarded to eligible students. Students must demonstrate financial need.
   b. Federal Supplemental Educational Opportunity Grant (SEOG) - This is a federally funded grant administered by the college. Students must demonstrate high financial need. Awards are limited to funds available.
   c. Minnesota State Grant - This is for Minnesota residents attending a Minnesota college only based on eligibility.
   d. Post-Secondary Child Care Grant Program - Income-based grant for students who have children in daycare. Awards are limited to funds available.
   e. Alliss Grant - This grant pays for up to one 1-5 credit class for eligible students. A student may receive it once. Course fees and books are not covered by this grant.
   f. CLC Foundation Scholarships - CLC has an extensive scholarship program for a variety of scholarship applicants. A CLC Foundation Scholarship application is required. Certain deadlines apply. Check with the Foundation Office, Admissions, Financial Aid or the Counseling/Career Center for more information and application form.
   g. Outside scholarships - Announced in community newspapers and local high schools. Students may contact the Foundation Office.

2. Student Employment: Provides students with opportunities to earn money to help meet educational costs. Students must complete the FAFSA to demonstrate financial need in order to qualify. Student employment is viewed as a regular job with responsibilities and employer expectations. Students receive an hour's pay for an hour's work Jobs

are available both on campus or at designated off-campus sites. A listing of available jobs can be found on the college's website under Financial Aid.

3. Student Loans: Money that is borrowed and must be repaid. All borrowers must complete loan entrance and exit counseling, a Master Promissory Note and complete a separate online loan acceptance process. Central Lakes College requires a 30-day delay for students who are new borrowers to receive their loan proceeds. In addition, all Federal Direct loans are subject to multiple disbursement regulations.
    a. Federal Direct Student Loan programs (subsidized and unsubsidized) - Low-interest loans obtained via CLC, through the U.S. Department of Education. Interest will not exceed 8 1/4% with long-term payments beginning six months after enrollment drops below six credits.
    b. Federal Direct Parent Loan for Undergraduate Students (PLUS) - This loan has a variable interest rate, not to exceed 9%, with payments due within 60 days after the loan is fully disbursed.
    c. Federal Perkins Loan - A student must show high financial need for this low interest loan at 5%. Recipients are determined by CLC according to the amount of funds available. Priority is given to students who have their financial aid file completed prior to June 1.
    d. Alternative Loans - These loans should be used as a last resort, and are secured through a bank, savings and loan or credit union. Interest rates vary greatly and a creditworthy co-signer is usually required.

Steps for Receiving Student Financial Aid

1. The student must be accepted for admission and enrolled at Central Lakes College.
2. The student must file a Free Application for Federal Student Aid (FAFSA).
3. The U.S. Department of Education processor sends a Student Aid Report (SAR) to the student via email or U.S. mail.
4. The U.S. Department of Education processor automatically sends the college your information when you have entered the appropriate college code on the FAFSA. Central Lakes College code is 002339.
5. Paperwork such as Tax Transcripts (parent and/or student), Institutional Verification Forms (IVF), or Social Security card may be required.
6. Students transferring from one college to another in the middle of the academic year must inform both schools of their intent to transfer.
7. Estimated award information will be available to students via the E-Services portal after the financial aid file is completed. Students will be notified via e-mail that their award is ready. This award information will explain your grant, loan and work eligibility. Your financial aid award will be finalized at the time of disbursement.
8. Financial aid awards are based on the number of credits at time of disbursement. Students who add a class after their aid has been disbursed may not be eligible for additional financial aid. Students who withdraw from a class prior to their aid being disbursed do not receive aid for the withdrawn class.
9. If you or your family have unusual circumstances, (such as unusual medical or dental expenses not paid by insurance, loss of income or assets) please contact the Financial Aid office, or refer to the "Special Circumstances" paragraph at the end of your award letter.

Return of Federal Financial Aid

Any student considering totally withdrawing from the college should contact the Financial Aid office before making a decision to totally withdraw. CLC is not required to, and does not, record student attendance. Federal regulations mandate that the college have a procedure in place to ensure that students have attended, at a minimum, one class session in each course in which that student has registered, if that course was used to determine enrollment status for Federal funding. In addition, Federal regulations require that students who totally withdraw, whether officially or unofficially or have stopped attending all their classes on or before the 60% point in time of the completed term must be evaluated under the Federal Return to Title IV refund regulations. These regulations include a federal formula, which will determine if a repayment is owed to the financial aid programs for which the student was funded. Withdrawal on or before 60% of the completed term means that a student has not earned all of the financial aid he/she was paid. Federal regulations consider the student to have earned all of their aid if the student's attendance extends beyond the 60 percent point of the term.

The Return of Federal Financial Aid policy applies to the following federal aid programs and funds must be returned in this order: Federal Direct Loans, Perkins Loans, PLUS loans, Pell Grants, SEOG Grants. Refunds to Minnesota financial aid programs are calculated appropriately using CLC's Refund policy.

Impact of Total Withdrawals before the 60 percentage point of time

Students may receive financial aid either as a credit to an account or as a cash payment. If funds have been credited to the student account and the college has an obligation to return federal funds, the student will owe a balance to the

college. When a student owes a balance to the college for unpaid tuition/fees, repayment arrangements must be made within 3 weeks of the end of the term. If the student fails to make repayment arrangements, the college will turn the balance owed the college to the Minnesota Revenue Recapture Program. Examples of these calculations are available upon request in the CLC Financial Aid office. Refunds to Financial Aid Programs are conducted before the student would receive a withdrawal refund. For students receiving State financial aid funding, Minnesota Higher Education Services Offices policies will apply.

Unofficial Withdrawals
Any student who stops attending but does not officially withdraw will be considered an unofficial withdrawal. For unofficial withdrawals the last date of attendance is defined as the student's last date of recorded attendance or the midpoint of the semester. Every effort is made to identify students as soon as possible after their withdrawal. Unofficial withdrawals will not receive a refund of tuition or fees. CLC uses the MN State software to determine how much funding will be considered unearned and will need to be returned. Students must attend each class at least once to receive a portion of their financial aid.

Satisfactory Academic Progress
Federal law requires that a recipient of state or federal financial aid make satisfactory academic progress toward a degree, diploma or certificate. All students are required to maintain a 2.0 cumulative grade point average and/ or complete a minimum of 67% of cumulative registered credits, and complete their program within 150% of the program length in credits. In addition, the Financial Aid office is required by the U.S. Department of Education to monitor whether or not a student will be able to graduate in a timely fashion.

Based upon U.S. Department of Education regulations, Minnesota State Colleges and Universities (Minnesota State) policy states "once the institution determines that it is not possible for a student to raise his/her GPA (2.0) or course completion percentage (67%) to meet the institutions standards before the student would reach the end of the program, the student shall be suspended from financial aid". The complete Satisfactory Academic Progress Policy can be found on the CLC Policy and Procedure website: http://www.clcmn.edu/college-policies/.

Student Services

Your Success is Our Goal
Attending college is a time for developing your own life direction, learning about yourself and your interests and strengths. To this end, Central Lakes College offers counseling, advising, assessment, career planning, and placement services. And because your personal development is as important as your career decisions, Central Lakes College offers activities through organizations and clubs to meet individual needs. At CLC, the staff wishes to help you become a successful student who knows how to analyze, make decisions, solve problems and relate well with others. The staff is here to help you find and further develop these qualities in yourself.

Career Services
Career Services has a wide range of printed and computerized career materials, surveys, and assessments which can help focus a career search and begin making decisions about college choices and career opportunities. In addition, the Career Services features the Minnesota Career Information System, which is a computerized career information system that supplies up-to-date information on employment trends, working conditions, training required for specific jobs, and current salaries.

The Counseling Department offers structured career exploration classes as well as a variety of workshops to assist students in making informed career and educational decisions. Counselors Exploration/Planning courses provide participants with a more comprehensive look at their interests, abilities, personal characteristics, and career options. Counselors are available for individual career counseling appointments.

Academic Advising
CLC's advisors are available to assist students from the time they register through graduation and beyond. Our advisors are equipped to assist students with questions about admissions, financial aid, transfer, career exploration, registration and more. Advisors are a vital resource for students.

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Counseling
Counselors meet with students to discuss areas of concern that may interfere with college success. Counselors refer students to outside resources when needed and provide on-campus support for students receiving off-campus services. If you are in a crisis and need immediate help, please come to the Campus Information & Services window and ask to see a counselor right away. If a counselor is unavailable, call for help, 1-800-462-5525 crisis hotline.

Veterans Resource Center
The Veterans Resource Center (VRC) provides information and support to current or former military members, their families and community members. The VRC has, or can locate information about veterans' services, financial resources, scholarships, veteran and family support activities and other items of interest to veterans, family members or community members. The VRC's director also serves as a certifying official for CLC students receiving veterans' benefits. Students or prospective students, who are or were in the military, are encouraged to contact the Center to arrange for priority registration before the beginning of the term. To be eligible for priority registration, the student must visit with the VRC Director, develop a written educational plan, research available financial resources and agree to follow-up services if needed. The Center staff serve as an advocate for veterans as well as a college training and educational resource. Staff from the Center provide information and public speaking about veterans issues for the general public. Everyone is welcome to drop in and visit. For additional information call or e-mail the VRC.

English Language Learner Services
Limited English language skills should not be a barrier to admissions to Central Lakes College. Upon admissions, CLC supports ELL students to navigate the college process and overcome barriers by taking appropriate measures to assess each student's ability to participate and benefit through placement testing and one-on-one coaching.

Raider Connect Services
Raider Connect Coaches (RCCs) provide mentorship, support and connections to all CLC students.
RCCs are proactive mentors that can advocate for the student's personal, educational and career goals. A Raider Connect Coach checks on student progress by monitoring academic success and connects with students through personalized, early intervention that fosters problem solving, skill-building and access to resources.

Learning Commons
The Learning Commons at the Brainerd and Staples campuses help prepare students for achievement in college courses. The services coordinated through this area:
1. Computer Assisted Instruction: Interactive computer stations and programs are available to support classroom activities for students from various disciplines.
2. Study Group Facilitation: Study groups for students will be coordinated through the staff in this department.
3. Supplemental Instruction: Academic assistance program that supports classes by providing regularly scheduled, out-of-class, peer-facilitated study sessions.
4. Tutoring Services: Tutoring is offered to enhance a student's understanding of academic course content and lab course content. It can be accomplished in a small group, classroom, lab, or individual settings. Peer tutors provide these services. (Peer tutors are students who are in the top 5% of the course they wish to tutor in, come highly recommended by faculty, and are trained/certified by the Learning Commons Coordinator.) All services are free of charge to CLC students.
5. Read, Write Gold (RWG) Computer Software: RWG Literacy Software is a tool available to all CLC students who would like some extra help with reading, writing, and research. RWG's friendly literacy features help English Language Learners, as well as people with dyslexia and other learning difficulties. Students may easily download this tool free, from the front page of D2L Brightspace.

Accessibility Services
Students with a documented disability may have access to reasonable accommodations through the Accessibility Services Office. Diagnosis include but not limited to learning disabilities, vision and hearing losses, physical and psychological diagnosis, traumatic brain injuries, Autism Spectrum Disorder/Asperger's and attention deficit disorders. Accommodations are determined on a case-by-case basis and may include alternative testing, note taking/lecture notes, interpreters, assistive technology, audio books and other reasonable accommodations. To start the process of getting connected with AS office students must first provide documentation of their diagnosis and then schedule an intake meeting with the Coordinator of Accessibility Services. For any questions please call 218-855-8175, email at accessibilityservices@clcmn.edu, or stop by our office at E138. Early application is essential for timely implementation of accommodations

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Meta 5 Displaced Homemakers Program
Meta 5 Displaced Homemaker Pre-Employment Program offers participants who have lost their primary source of income due to separation, divorce, disability or death of a spouse, a free, customized, holistic, client-centered program to help you transition into college, the job market and address a variety of other needs. We offer a compassionate, non-judgmental support system. Individuals are empowered to make their own decisions and good choices. We provide referrals to a broad array of resources including social service agencies, educational institutions and training programs, as well as financial aid resources. Meta 5 Displaced Homemaker Program provides this free service through funding from the Department of Employment and Economic Development. Meta 5 has offices both in Staples and Brainerd. Please contact program director Kimberly Pilgrim at 218-855-8010.

Office of Equity and Inclusion
Our commitment to diversity at Central Lakes College is embedded in our mission statement and values. At Central Lakes College we are committed to a supportive environment for the growth and development of students from diverse cultural, ethnic, sexual orientation, economic and educational backgrounds. Contact Mary Sam, (218-855-8159, Office E132) for more information on services, training, clubs and organizations and services provided by the Office of Equity and Inclusion.

TRIO Student Support Services
The Student Support Services program is located on the Brainerd campus in the Bridge. The mission of Student Support Services is to increase the retention, graduation, and transfer rates of Central Lakes College students by offering academic and personal support in a variety of ways. The Student Support Services program serves 180 students each year. Federal regulations require that the participants must qualify as at least one of the following:

• First generation college student (neither parent has completed a bachelor's degree)
• Low to moderate-income student (according to the U.S. Government)
• Student with a documented disability.

A student must be enrolled in Central Lakes College (Brainerd or Staples campus), taking six or more credits and be a U.S. citizen.

During the academic year, students receive individual and group advising to foster positive study habits and academic success. Students can take advantage of a comfortable learning environment, leadership opportunities, cultural excursions, and academic workshops. Student Support Services is a federally funded program by the U.S. Department of Education. For more information, contact director Charles Black Lance at 218-855-8119.

TRIO Upward Bound
Upward Bound is a college access program federally funded by the U.S. Department of Education. Upward Bound provides fundamental support to participants in their preparation for college entrance. The program provides opportunities for participants to succeed in pre-college performance and ultimately in higher education pursuits. Upward Bound serves high school students from low income families and high school students from families in which neither parent holds a bachelor's degree. The goal of Upward Bound is to increase the rates at which participants enroll in and graduate from institutions of post-secondary education.

All Upward Bound projects provide instruction in math, laboratory science, composition, literature, and foreign language.

Other services include:

- Instruction in reading writing, study skills, and other subjects necessary for success in education beyond high school.
- Academic, financial, or personal advisement.
- Exposure to academic programs and cultural events.
- Tutorial Services.

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Student Conduct Policies and Procedures

3.6 Student Conduct Policy
Part 1. Student Conduct Policy
The Central Lakes College Student Code of Conduct serves two purposes: the first purpose is to serve as a guide for student behavior; the second purpose is to outline the procedures to be followed, both by students and college officials, should violations of the Code occur. It is expected that all students will read this code and will be responsible for knowing and abiding by its content.

In the eyes of the College, two authorities guide a student's conduct while on campus or while participating in off-campus, college-sponsored activities. First, as a citizen of the larger community, each student is expected to abide by the rules, regulations, and policies of the College as well as local, state, and federal laws.

Part 2. Off Campus Conduct Jurisdiction
The College Student Code shall apply to conduct that occurs on College premises, at College-sponsored activities, and to off-campus conduct, including Central Lakes College Foundation Student Housing, in the following circumstances:

1. Hazing is involved; or
2. The violation is committed while participating in a college sanctioned or sponsored activity; or
3. The victim of the violation is a member of the college community; or
4. The violation constitutes a felony under state or federal law; or
5. The violation adversely affects the educational, research, or service functions of the college.

As an institution dedicated to teaching and learning, Central Lakes College has a vested interest in maintaining an environment in which students are free to pursue their academic interests and responsibilities. Conduct that unreasonably restricts such freedom and interferes with the College mission of promoting student learning is subject to regulation and/or sanction by the College. The creation of such an environment is premised on the assumption that students have both rights and responsibilities. Therefore, a major function of the College is to guarantee student rights, yet to demand student responsibility.

Part 3. Appeals
Students found to be responsible for a conduct violation shall be provided an avenue of appeal within the institution. In addition, in cases involving sanctions of suspension for 10 days or longer, students shall be informed of their right to a contested case hearing under Minnesota State Statute 14. Student Code of Conduct Policy and Procedures are located on the CLC website:
Policy 3.6 www.clcmn.edu/wp-content/uploads/2015/06/3.6-Student-Conduct-Policy.pdf
Policy 3.6.1 www.clcmn.edu/wp-content/uploads/2015/06/3.6.1-Student-Conduct-Procedure.pdf

Drugs and Alcohol Policies, Prevention and Resources

As a learning institution, Central Lakes College values and promotes an alcohol and drug free environment for its students, faculty, and staff. In addition, it is the Minnesota State Policy 5.18.1 to maintain a drug and alcohol-free environment. The college prohibits the illegal use of alcohol and drugs and complies fully with federal, state and local regulations regarding the sale, possession and consumption of alcoholic beverages and controlled substances. All members of the college community are held responsible for their behavior and for respecting the rights of others. The college is committed to providing the community with education regarding high-risk alcohol and drug use and to making health-enhancing experiences a priority.

Non-Discrimination:
The drug and alcohol policy in regards to learning or work substance abuse is non-discriminatory in intent and application. However, in accordance with Minnesota Statues, disability does not include any condition resulting from alcohol or other drug abuse, which prevents a person from performing essential functions of the classroom or the job or creates a direct threat to property or the safety of individuals.

Alcohol Policy:
The unlawful possession, use, production, distribution or sale of alcohol by any student or employee is prohibited on the college property (including buildings, grounds and vehicles) or as any part of a college activity in accordance with

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Minnesota State Colleges and University guidelines (regardless of age), city, state and federal laws. To consistently ensure compliance with these regulations, alcohol beverage containers (both empty and full) are not allowed on campus. Examples include, but are not limited to: cans, bottles, kegs, party balls, crates, cases and wine or liquor bottles. Exemptions would include alcohol beverage containers that may be used within a course curriculum or theatrical production or a college function that has, on file, a Minnesota State Board permit on file. Any student, faculty or staff member found to be in violation of federal, state and/or local law, or who violates the college' alcohol and other drug policies, are subject to Central Lakes College disciplinary procedures and or referral to the appropriate authorities for legal prosecution. Campus disciplinary sanctions include, but are not limited to, written warnings, probation, suspension and/or dismissal. Sanctions may also apply to registered student organizations and to off-campus conduct involving activities sponsored or authorized the Central Lakes.

Legal Requirements:
The following general provisions apply to individual possession or use of alcoholic beverages on college property, on property owned or controlled by the college, and at college sponsored events:
• No person who is less than 21 years of age may purchase, sell, furnish, possess, or consume any type of alcoholic beverage.
• No person may be in a public area in an intoxicated condition.
• No person may possess an open container of alcohol in a public area, including, but not limited to, hallways, stairways, and other common areas of the facilities.
• No person may provide alcohol to any person who is less than 21 years of age.
• No person may misrepresent their age through false documents or to lend their identification to someone for the purpose of purchasing or using alcoholic beverages.
• No person, under the age of 21, may drive with any amount of alcohol in their system.

Policy Violations:
If a policy violation occurs, students are subject to appropriate discipline by the Dean of Students, Equity and Inclusion.

Policy 3.6 www.clcmn.edu/wp-content/uploads/2015/06/3.6.1-Student-Conduct- Procedure.pdf

Policy 1B.3.3 www.clcmn.edu/wp-content/uploads/2015/04/3.6.2-AddendumUniformAmnestyPolicyStudentConductDrugsAlcoholandSexualViolence-CLCWebsite.pdf

Sanctions, may include, but are not limited to, community service hours, loss of privileges or services within the college community, referral to counseling, suspension, dismissal or expulsion or may be referred to law enforcement.

Legal Sanctions:
The State of Minnesota may impose a wide range of sanctions for alcohol-related violations.

Drug Policy
Central Lakes College will not tolerate the use or sale of drugs and/or drug paraphernalia by students, faculty or staff. The possession, use, distribution or sale of marijuana, hallucinogens, narcotics, un-prescribed amphetamines or barbiturates is prohibited. Any sale or sharing of prescription drugs is prohibited.

Legal Requirements:
The following general provisions apply to individual possession or use of drugs on College property, on property owned or controlled by the College, and at College sponsored events: The Controlled Substances Act prohibits the manufacture, possession, use, distribution or sale of cocaine, crack, narcotics, hallucinogens, marijuana and the various individual drugs in these categories and states that are illegal under Minnesota and Federal Law.

Prosecution of drug possession and sale may include the following:
- Students may have drugs and/or paraphernalia confiscated by local law enforcement.
- Students will be referred to the Dean of Students, Equity & Inclusion, for disciplinary action.
- Students may have possible legal action taken against them by the State or Federal Government.
- Students may have a possible loss of Federal Financial Aid.

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Policy Violations:
If a policy violation occurs, students are subject to appropriate discipline as noted in the student code of conduct:
Policy 3.6 www.clcmn.edu/wp-content/uploads/2015/06/3.6.1-Student-Conduct- Procedure.pdf
Policy 1B.3.3 www.clcmn.edu/wp-content/uploads/2015/04/3.6.2-AddendumUniformAmnestyPolicyStudentConductDrugsAlcoholandSexualViolence-CLCWebsite.pdf

Sanctions, may include, but are not limited to, community service hours, loss of privileges or services within the college community, referral to counseling, suspension, dismissal or expulsion or may be referred to law enforcement.

Legal Sanctions:
Federal and state sanctions for illegal possession of controlled substances range from up to one-year imprisonment and up to $100,000 in fines for a first offense, to three years imprisonment and $250,000 in fines for repeat offenders. Additional penalties include forfeiture of personal property and the denial of federal student aid benefits. Under federal laws, trafficking in drugs such as heroin or cocaine may result in sanctions up to and including life imprisonment for a first offense involving 100 gm or more. Fines for such an offense can reach $8 million. First offenses involving lesser amounts, 10-99 gm, may result in sanctions up to and including 20 years imprisonment and fines of up to $4 million. A first offense for trafficking in marijuana may result in up to five years imprisonment and fines up to $500,000 for an offense involving less than 50 kg, and up to life imprisonment and fines up to $8 million for an offense involving 1,000 kg or more.

Special Addition to Policy:
Students and faculty who are enrolled in or teaching in the programs of Heavy Equipment Operations and Maintenance and the Diesel and Heavy Equipment Technician Programs must comply to a specific program drug and alcohol policy as well as the general College policy.

Drug/Alcohol Policies:
Policy 3.6 www.clcmn.edu/wp-content/uploads/2015/06/3.6.1-Student-Conduct- Procedure.pdf

Policy 1B.3.3 www.clcmn.edu/wp-content/uploads/2015/04/3.6.2-AddendumUniformAmnestyPolicyStudentConductDrugsAlcoholandSexualViolence-CLCWebsite.pdf

Health Risks Associated with Alcohol and Drug Use and Abuse
Alcohol: Alcohol consumption causes a number of changes in behavior and physiology. Even low doses significantly impair judgment, coordination, and abstract mental functioning. Statistics show that alcohol use is involved in a majority of violent behaviors on college campuses, including acquaintance rape, vandalism, fights, and incidents of drinking and driving. Continued abuse may lead to dependency, which often causes permanent damage to vital organs and deterioration of a healthy lifestyle.

Amphetamines: Amphetamines can cause a rapid or irregular heartbeat, headaches, depression, damage to the brain and lungs, tremors, loss of coordination, collapse, and death. Heavy users are prone to irrational acts.

Cocaine/Crack: Cocaine users often have a stuffy, runny nose and may have a perforated nasal septum. The immediate effects of cocaine use include dilated pupils and elevated blood pressure, heart rate, respiratory rate, and body temperature, paranoia and depression. Cocaine is extremely addictive and can cause delirium, hallucinations, blurred vision, severe chest pain, muscle spasms, psychosis, convulsions, stroke and even death.

Hallucinogens: Lysergic Acid Diethylamide (LSD) causes illusions and hallucinations. The user may experience panic, confusion, suspicion, anxiety, and loss of control. Delayed effects, or flashbacks, can occur even when use has ceased. Phencyclidine (PCP) affects the section of the brain that controls the intellect and keeps instincts in check. Hallucinogens can cause liver damage, convulsion, coma and even death.

Marijuana: Marijuana may impair or reduce short-term memory and comprehension, alter sense of time, and reduce coordination and energy level. Users often have a lowered immune system and an increased risk of lung cancer. Users also experience interference with psychological maturation and temporary loss of fertility. The active ingredient in marijuana, THC, is stored in the fatty tissues of the brain and reproductive system for a minimum of 28 to 30 days.

Methamphetamine: Methamphetamines, known as speed, meth, ice, glass, etc., have a high potential for abuse and dependence. Taking even small amounts may produce irritability, insomnia, confusion, tremors, convulsions, anxiety,

paranoia, and aggressiveness. Over time, methamphetamine users may experience symptoms similar to Parkinson's disease, a severe movement disorder.

Narcotics: Narcotics such as codeine, heroin or other opiate drugs cause the body to have diminished pain reactions. The use of heroin can result in coma or death due to a reduction in heart rate.

Steroids: Steroid users experience a sudden increase in muscle and weight and an increase in aggression and combativeness. Steroids can cause high blood pressure, liver and kidney damage, heart disease, sterility and prostate cancer. Additional information can be found at: www.nida.nih.gov.

Resources
There are several local and national resources for alcohol and drug information, treatment, and support.

Information:
- National Institute on Alcohol Abuse and Alcoholism, www.niaaa.nih.gov
- National Institute on Drug Abuse, 800-729-6686, www.drugabuse.gov
- National Alliance on Mental Illness, 800-950-6264, www.nami.org

Treatment Programs:
- Crow Wing County Community Services, Chemical Health, 218-824-1140, 204 Laurel Street, Brainerd, MN 56401, www.crowwing.us/169/Chemical-Dependency
- Essentia Health-St. Joseph's Medical Center, 218-829-2861/800-277-8262, 523 North 3rd Street, Brainerd, MN 56401, www.essentiahealth.org
- Todd County Health and Human Services, 320-732-4500, 200 1st Street Northeast, Suite 1, Staples, MN 56479, www.co.todd.mn.us/divisions/health-human/health-services
- Meridian Behavioral Health, 877-367-1715, www.meridianprograms.com
- MN Adult & Teen Challenge, 218-833-8778/612-373-3366, 2424 Business 371, Brainerd, MN 56401, www.mntc.org

Support Services:
- Alcoholics Anonymous, 218-828-4811/218-825-3770, 302 4th Avenue Northeast, Brainerd, MN 56401 and 7829 State Highway 210, Baxter, MN 56425, www.aacentrallakes.org
- Alcoholics Anonymous, 218-631-3828, 421 4th Street Northwest, Wadena, MN 56482, www.al-anon.org/, or www.meetings.intherooms.com/meetings/search?latitude=46.358449&longitude=-94.783979&proximity=100
- Narcotics Anonymous, Brainerd, MN 56401, www.narcotics.com/na-meetings/minnesota/brainerd/
- Narcotics Anonymous, Staples, MN 56479, www.narcotics.com/na-meetings/Staples/
- Crisis Line (available 24 hours/day), 218-828-HELP/800-462-5525

Sexual Harassment and Sexual Violence

Sexual Harassment and Sexual Violence
Sexual harassment and sexual violence is prohibited at Central Lakes College and is an intolerable intrusion into the most personal and private rights of an individual. CLC is committed to eliminating sexual harassment and sexual violence in all forms and will take appropriate remedial action against any individual found responsible for acts in violation of this policy. Acts of sexual violence may also constitute violations of criminal or civil law, or other Minnesota State Board Policies that may require separate proceedings. To further its commitment against sexual harassment and sexual violence, Central Lakes College provides reporting options, an investigative and disciplinary process, and prevention training or other related services as appropriate.

Sexual violence is a continuum of conduct that includes:
• Sexual harassment (verbal, physical and non-verbal)
• Sexual assault
• Sexual exploitation
• Domestic, dating, and intimate partner violence
• Stalking

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Sexual violence is nonconsensual and happens through coercion or force.

What is Consent?
Consent is an affirmative, conscious, and voluntary agreement between participants to engage in sexual activity. It is saying 'yes' every step of the way. Silence or not saying 'no' is not consent. Consent cannot be given while under the influence of alcohol or drugs.

What is Coercion?
Coercion is a tactic-including subtle pressure, guilt, threats, and the use of alcohol and drugs-used to persuade, manipulate, intimidate, or force someone to engage in sexual activity against their will.

How Can I Prevent Sexual Violence?
There are many factors that perpetuate sexual violence. Current prevention strategies focus on victims, perpetrators, or bystanders and commonly include:

Risk reduction techniques
• Being aware of your surroundings
• Protecting your beverage
• Knowing your limits
• Going out in groups
• Having a safety plan

Increasing protective factors
• Raising knowledge and awareness of sexual violence
• Improving communication and conflict resolution skills
• Eliminating gender roles
• Taking a stand and taking action against sexual violence
• Educating others

Bystander Intervention
• Paying attention to situations that may easily escalate
• Creating a distraction or intervening
• Talking directly to the person who may be in trouble and asking if they need help
• Enlisting others to support you
• Referring to the authorities

How Do I Report Sexual Violence?
Sexual violence is an intolerable intrusion into the most personal and private rights of an individual, and is prohibited at Central Lakes College. CLC strives to create a safe campus and is committed to eliminating sexual violence in all forms and will take appropriate remedial action against any individual found responsible for acts in violation of this policy. Individuals are not expected to determine whether or not an incident constitutes an act of sexual violence in order to report it. CLC will investigate all reports made to our Title IX office.

If you have experienced or witnessed any type of sexual violence and choose to report, there are several options:
• Online at www.clcmn.edu/sexualviolenceprevention (can be reported anonymously)
• Free Campus Eye App, available at the App Store and Google Play, enter CLC sign-up code D7C6 (can be reported anonymously)
• Mary Sam, Title IX Coordinator, 218-855-8159, room E132 located in "The Bridge" on the Brainerd Campus
• CLC Counselor, Suzie Karsnia- 218-855-8015, room C164
• CLC Campus Security, 218-828-6050, room C125
• Sexual Assault Services (confidential reporting and support available 24 hours a day), 218-828-0494/888-458-0494
• Local Law Enforcement:
Brainerd Police Department, 225 East River Road, Brainerd, MN 56401, 218-829-2805
Baxter Police Department, 13190 Memorywood Drive, Baxter, MN 56425, 218-454-5090
Staples Police Department, 301 2nd Avenue NE, Staples, MN 56479, 218-894-1841
In case of emergency, call 911

CLC's Amnesty Policy
A witness or victim of an incident of sexual violence who reports the incident in good faith will not be sanctioned by the school for admitting to a violation of the student conduct policy on the personal use of alcohol or drugs. (MN Statute 135A.15 Sexual Harassment and Violence Policy)

Sexual Prevention and Support Resources
There are several local and national resources for sexual violence prevention and support.
• CLC Title IX office, 218-855-8159, room E132 located in The Bridge on the Brainerd Campus
• Sexual Assault Services (confidential reporting and support available 24 hours a day), 218-828-0494/888-458-0494, 211 South 4th
Street, Brainerd, MN 56401,
• Essentia Health-St. Joseph's Medical Center, 218-829-2861/800-277-8262 523 North 3rd Street, Brainerd, MN 56401, www.essentiahealth.org
• Minnesota Coalition Against Sexual Assault (MNCASA), 651-209-9993, www.mncasa.org
• Rape, Abuse, and Incest National Network (RAINN), 800-656-HOPE (4673), www.rainn.org, (available 24 hours a day)
• Know Your IX, Empowering Students to Stop Sexual Violence, www.knowyourix.org
• Circle of 6, www.circleof6app.com, a free personal safety app designed for college students.

Nondiscrimination, Sexual Harassment, Sexual Violence Policies
1B.1 Nondiscrimination Policy www.minnstate.edu/board/policy/1b01.html
1B.1.1 Nondiscrimination Procedure www.minnstate.edu/board/procedure/1b01p1.html
1B.3 Sexual Violence Policy www.minnstate.edu/board/policy/1b03.html
1B.3.1 Sexual Violence Procedure www.minnstate.edu/board/procedure/1b03p1.html
1B.3.3 Addendum to Uniform Amnesty Policy www.clcmn.edu/wp-content/uploads/2015/04/1B.3.3-AddendumUniformAmnestyPolicySexualViolence-CLCWebsite.pdf

1B.1 Policy on Harassment and Discrimination

Central Lakes College is committed to providing a safe learning environment free from discrimination and harassment.

1B.1 Equal Opportunity and Nondiscrimination in Employment and Education Policy:
Part 1. Policy Statement
Subpart A. Equal opportunity for students and employees. Minnesota State has an enduring commitment to enhancing Minnesota's quality of life by developing and fostering understanding and appreciation of a free and diverse society and providing equal opportunity for all its students and employees. To help effectuate these goals, Minnesota State Colleges and Universities is committed to a policy of equal opportunity and nondiscrimination in employment and education.

Subpart B. Nondiscrimination. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in, programs, services, and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, gender identity, or gender expression. In addition, discrimination in employment based on familial status or membership or activity in a local commission as defined by law is prohibited.

Harassment on the basis of race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, gender identity, gender expression, or familial status is prohibited. Harassment may occur in a variety of relationships, including faculty and student, supervisor and employee, student and student, staff and student, employee and employee, and other relationships with persons having business at, or visiting the educational or working environment.

This policy is directed at verbal or physical conduct that constitutes discrimination/ harassment under state and federal law and is not directed at the content of speech. In cases in which verbal statements and other forms of expression are involved, Minnesota State Colleges and Universities will give due consideration to an individual's constitutionally protected right to free speech and academic freedom. However, discrimination and harassment are not within the protections of

academic freedom or free speech. The system office, colleges, and universities shall maintain and encourage full freedom, within the law, of expression, inquiry, teaching and research. Academic freedom comes with a responsibility that all members of our education community benefit from it without intimidation, exploitation or coercion.

This policy shall apply to all individuals affiliated with Minnesota State Colleges and Universities, including but not limited to, its students, employees, applicants, volunteers, agents, and Board of Trustees, and is intended to protect the rights and privacy of both the complainant and respondent and other involved individuals, as well as to prevent retaliation or reprisal. Individuals who violate this policy shall be subject to disciplinary or other corrective action.

This policy supersedes all existing system, college, and university equal opportunity and nondiscrimination policies.

Part 2. Definitions.
Subpart A. Consensual Relationship. Consensual relationship means a sexual or romantic relationship between two persons who voluntarily enter into such a relationship. Employees who are members of the same household should also refer to Board Policy 4.10, Nepotism.

Subpart B. Discrimination. Discrimination means conduct that is directed at an individual because of his or her protected class and that subjects the individual to different treatment by agents or employees so as to interfere with or limit the ability of the individual to participate in, or benefit from, the services, activities, or privileges provided by the system or colleges and universities or otherwise adversely affects the individual's employment or education.

Subpart C. Discriminatory harassment. Discriminatory harassment means verbal or physical conduct that is directed at an individual because of his or her protected class, and that is sufficiently severe, pervasive, or persistent so as to have the purpose or effect of creating a hostile work or educational environment.

As required by law, Minnesota State Colleges and Universities further define sexual harassment as a form of sexual discrimination, which is prohibited by state and federal law. Sexual harassment includes unwelcome sexual advances, requests for sexual favors, sexually motivated physical conduct, and other verbal or physical conduct of a sexual nature when:
1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education, evaluation of a student's academic performance, or term or condition of participation in student activities or in other events or activities sanctioned by the college or university; or
2. Submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions or other decisions about participation in student activities or other events or activities sanctioned by the college or university; or
3. Such conduct has the purpose or effect of threatening an individual's employment; interfering with an individual's work or academic performance; or creating an intimidating, hostile, or offensive work or educational environment.

Subpart D. Employee. Employee means any individual employed by Minnesota State Colleges and Universities, including all faculty, staff, administrators, teaching assistants, graduate assistants, residence directors and student employees.

Subpart E. Protected Class. For purposes of this policy:
1. Protected class includes race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, gender identity, or gender expression. In addition, familial status and membership or activity in a local human rights commission are protected classes in employment.
2. This policy prohibits use of protected class status as a factor in decisions affecting education and employment where prohibited by federal of state law.

Subpart F. Retaliation. Retaliation includes, but is not limited to, intentionally engaging in any form of intimidation, reprisal or harassment against an individual because he or she:
a) made a complaint under this policy;
b) assisted or participated in any manner in an investigation, or process under this policy, regardless of whether a claim of discrimination or harassment is substantiated;
c) associated with a person or group of persons who are disabled or are of a different race, color, creed, religion, sexual orientation, gender identity, gender expression, or national origin; or
d) Made a complaint or assisted or participated in any manner in an investigation or process with the Equal Employment Opportunity Commission, the U.S. Department of Education Office for Civil Rights, the Minnesota Department of Human

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Rights or other enforcement agencies, under any federal or stated nondiscrimination law, including the Civil Rights Act of 1964; Section 504 of the Rehabilitation Act of 1973; the Minnesota Human Rights Act, Minn. Stat. Ch. 363A, and their amendments.

Retaliation may occur whether or not there is a power or authority differential between the individuals involved.

Subpart G. Sexual harassment and violence as sexual abuse. Under certain circumstances, sexual harassment or violence may constitute sexual abuse according to Minnesota law. In such situations, the system office and colleges and universities shall comply with the reporting requirements in Minnesota Statutes Section 626.556 (reporting of maltreatment of minors) and Minnesota Statutes Section 626.557 (Vulnerable Adult Protection Act). Nothing in this policy will prohibit any college or university or the system office from taking immediate action to protect victims of alleged sexual abuse. Board Policy 1B.3 Sexual Violence addresses sexual violence.

Subpart H. Student. For purposes of this policy, the term “student” includes all persons who:
1. Are enrolled in one or more courses, either credit or non-credit, through a college or university;
2. Withdraw, transfer or graduate, after an alleged violation of the student conduct code.;
3. Are not officially enrolled for a particular term but who have a continuing relationship with the college or university;
4. Have been notified of their acceptance for admission or have initiated the process of application for admission or financial aid; or
5. Are living in a college or university residence hall although not enrolled in, or employed by, the institution.

Part 3. Consensual Relationships. An employee of Minnesota State Colleges and Universities shall not enter into a consensual relationship with a student or an employee over whom he or she exercises direct or otherwise significant academic, administrative, supervisory, evaluative, counseling, or extracurricular authority or influence. In the event a relationship already exists, each college and university and system office shall develop a procedure to reassign evaluative authority as may be possible to avoid violations of this policy. This prohibition does not limit the right of an employee to make a recommendation on personnel matters concerning a family or household member where the right to make recommendations on such personnel matters is explicitly provided for in the applicable collective bargaining agreement or compensation plan.

Part 4. Retaliation. Retaliation as defined in this policy is prohibited in the system office, colleges and universities. Any individual subject to this policy who intentionally engages in retaliation shall be subject to disciplinary or other corrective action as appropriate.
Part 5. Policies and procedures. The chancellor shall establish procedures to implement this policy. The equal opportunity and nondiscrimination in employment and education policy and procedures of colleges and universities shall comply with Board Policy 1B.1 and Procedure 1B.1.1.

Complainants are strongly encouraged to report incidents of harassment and discrimination to campus authorities. Central Lakes Contacts include:
• Designated Title IX Officer/Affirmative Action, Dean of Students- Mary Sam (218-855-8159, Office E132).
• Campus Security- (218-828-6050, Office C125)
• Student Concern Process - www.clcmn.edu/concern/

1B.1 Nondiscrimination /Harassment Policy www.minnstate.edu/board/policy/1b01.html
1B.1.1 Report/Complaint Process and Procedure Policy www.minnstate.edu/board/procedure/1b01p1.html

Student Concern Process
Central Lakes Colleges strives to offer a student-centered learning environment. We are committed to resolving student concerns.

CLC encourages you to resolve issues of concern on your own; however if you cannot do so, please submit an electronic report on the CLC Student Concern link located at www.clcmn.edu/concern/

Student Concerns related to academic, service related, behavior or conduct, discrimination, harassment or sexual violence reporting can be accessed via the link above.

College Information

Libraries
A physical library is located on both the Staples and Brainerd campuses. They provide for academic needs beyond the classroom and include printed material, research support, access to interlibrary loans, quiet places to study, areas for group work, computer labs, and a learning commons. Both learning commons provide students peer tutoring services and support from the Learning Commons Coordinators. The combined number of printed volumes in the library's catalogs is in excess of 40,000. Also, students have access to circulating material located in the libraries of over 60 consortium member colleges. In addition to printed material, the libraries of CLC provide access to thousands of online journals and over 140,000 eBooks. The Brainerd campus library, formally known as the Jon Hassler Library, also contains a special government section in the Heritage Center. It is dedicated to Minnesota Senator Gordon Rosenmeier. An additional collection of over 3,000 Native American-related titles is housed in the Humphrey Center for American Indians Studies, which is located in the library's Skone Family Conservatory. Central Lakes College students access the databases and borrow material using the 14-digit barcode located on the back of the "myCLCPlusCard" they receive when they initially register for classes.

Bookstore
There is a bookstore on both campuses. Each store offers a variety of products and services, in addition to textbooks and course materials. Textbook information is available on our website, http://clcbookstore.com, one month before the start of each term.

Deferment for Textbooks and Course Materials
Bookstore charging is open four weeks each semester; beginning three weeks prior to the start of each semester and ending the fifth day of the semester. Students that have met the minimum tuition payment criteria, and are not in danger of having their course registrations cancelled for non-payment, may charge up to $1000 in the campus bookstore for textbooks and related supplies.
• A picture ID (student id, driver's license) is required to charge books.
• Bring a copy of your class schedule. You will need the course and section numbers that appear on the class schedule to select the right books for each class. If you do not have a copy of your schedule you can print one through e-Services.
• Keep your receipts for all of your books. This will be needed to exchange or return a book and for tax purposes.

Post-Secondary Enrollment Option (PSEO) students are allowed to charge required books and a reasonable amount of required supplies that will be used up in their courses. Books charged by PSEO students are the property of Central Lakes College and must be returned to the bookstore at the end of the semester. You can also purchase your books online at http://clcbookstore.com, charge them to financial aid, PSEO or credit card, and have them shipped directly to you.

Return Policy
• A CLC Bookstore receipt is required for all returns.
• Unopened general merchandise may be returned within 24 hours of purchase.
• Unopened software may be returned within 24 hours of purchase. Software is not returnable if opened.
• Computers (laptops, notebooks and tablets) may be returned within 72 hours of purchase.
• Nursing kits cannot be returned. Please check your nursing kit for supplies before you leave the store.
• Books may be returned through the 5th day of the semester. A receipt is required for all returns.
• After the fifth day of the semester, books may be returned with 3-days of purchase, with a store receipt.
• New books must be returned in original condition, with a receipt.
• Books with open shrink-wrap will be returned at used book price within the return period.
Buyback
• Students have the opportunity to sell their books back during finals week each semester.
• No receipt is required for buyback, but A STUDENT ID is required.

PSEO & Rental Returns
• Rental and PSEO books must be returned during finals week each semester.
• Rental and PSEO books should not be sold at buyback.

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Textbook Buyback
Students have the opportunity to sell their books back at the end of each semester. No receipt is required for buyback. Books are being purchased for the campus bookstores and for a wholesale book company. The bookstores' greatest need for books is at the end of the semester during the week of finals. Dates and times of buyback are posted on the CLC website. Study guides, lab manuals and workbooks are bought under limited conditions. Books bundled with multiple components such as access codes, supplemental pamphlets, etc. must have all components to be bought back.

Foodservice
Brainerd Campus: breakfast and Lunch are available daily from 7:30-2:00
Staples Campus: breakfast and lunch are available daily from 7:30-1:00 from Monday-Thursday; 7:30-10:30 Friday

Telephones
Office telephones are for official use only. There are public telephones located on campus for student use. Students may not receive phone calls at the college. In the event of an emergency, a student will be contacted in class to return a phone call. The caller will be asked the nature of the emergency in order for the college to determine if the call warrants a student being removed from class.

Parking
Convenient student parking is available for all students on all campuses of Central Lakes College. You are subject to a CLC parking citation for the following reasons:
• Parking in a loading zone
• Blocking driveways
• Parking on grass
• Parking on perimeter
• Improper permits
• No permit displayed
• Improper position
• Parking between 11 p.m. and 6 a.m. without a permit
• Parking in restricted zones (i.e. yellow curb, visitor parking, no parking zones, fire lanes)

If you receive a CLC parking citation and wish to appeal, obtain an Appeal Form from www.clcmn.edu/general-information/security-safety/ and submit it within 5 days of receipt of the citation. Appeals received after the 5th business day will NOT be considered.

Business and Industry Center parking is restricted to Business and Industry Center clients only. CLC parking lots are patrolled by local police and Campus Security.

Security Escort Service to the parking lots, is available during business hours on the Brainerd Campus by contacting the security department at 218-828-6050, or by pressing the red button on the emergency call boxes by the main exits or by contacting the Information Center (Brainerd: 218-855-8000, Staples: 218-894-5100). Contact maintenance personnel at Staples Campus.

Handicapped Parking
Parking for students with disabilities is provided in designated areas. Students and others parking in these areas must display a current State Handicapped Parking Permit on their vehicle.

CLC Permit Parking
Parking is provided for students with temporary disabilities in designated "permit parking" areas. Students must display a current CLC handicapped-parking permit. Permits expire at the end of each semester and are only available through Disability Services (Brainerd:
218.855.8218, Staples: 218.894.5182).

Overnight/Extended Parking
Students needing to park overnight or over an extended time period must obtain a permit through the Information Center at the CLC campus where the parking is being requested; and display the permit on the vehicle's dashboard, and park in the posted designated parking area.

Community Resources

Daycare Services/Early Education
Annie's Child Care and Learning Center -Central Lakes College, in partnership with the Annie's Child care and Learning Center, offers quality childcare and learning opportunities on the CLC Brainerd campus. Annie's Child Care and Learning Center provides full- Center telephone number: 218-855-8274 or Joann Ostrowski, Owner 218-829-9228 annieslearningcenter501@gmail.com Brainerd Daycare Providers- http://www.brainerd.com/service/serv.html#Day
Child Care Aware of Minnesota-1-888-291-9811
Early Childhood Family Education: 651-582-8399
Headstart- 218-728-1091
Staples Day Care Directory –www.childcarecenter.us/Minnesota_homecare/staples_mn_city

Food Shelves & Meal Sites
Second Harvest North Central Food Bank - www.secondharvestncfb.com/index.html
Mothers and Children (MAC) Free Food Program -1-800-365-0270 218-326-4420
WIC Nutrition Program- 218-824-1073
Sharing Bread Soup Kitchen -218-829-4203
Ruby's Pantry Food Distribution, 320-629-7400
Brainerd Food Shelf (Salvation Army)-218-829-1120
Crosslake Food Shelf-218-692-1004
Cuyuna Range Food Shelf- 218-546-7444 and 218-534-9264
Emily Food Shelf- 218-763-3097
Garrison Food Shelf- 320-692-5399
Lakes Area Food Shelf (Nisswa/Pequot/Breezy/Lakeshore)- 218-568-8474
Staples Area Food Shelf- 218-894-1041
Staples: SNAP (Supplemental Nutrition Assistance Program)- 218-894-6300

Housing
Information on area housing is located on the CLC Student Life webpage, under Campus Life: contact the Student Life Office or check the student life website: http://www.clcmn.edu/student-services/area-housing-list
Parkway Apartments, owned by the Central Lakes College Foundation, call: 218-824-8403 for more information
Brainerd Dispatch - www.brainerddispatch.com/
Brainerd Housing Authority -218-829-8634
Craig's List- brainerd.craigslist.org/apa/
Hope Housing (Lutheran Social Services)-218-824-1437 or toll free 1-866-970-1437
Housing Resource List- Bridges of Hope- bridgesofhopemn.org/resources/housing.html
Salvation Army Rental Assistance Program -218-829-1120
Staples Housing and Redevelopment Authority (HRA)- 218-894-2301

Emergency Housing/Shelter
Mid-Minnesota Women's Shelter and Center-218-828-1216
MN Complete List - www.hud.gov/local/mn/homeless/shelterslisting.cfm#crow
New Pathways -763-691-0121

Prenatal care
Essential Health St. Joseph's Good Beginnings OB Clinic (Brainerd) - 218-828-7688
Lakewood Health System (Staples): 218-894-1515
Lakes Area Pregnancy Support Center - 218-825-0793 and Facebook www.facebook.com/pages/Lakes-Area-Pregnancy-Support-Center/167959363214241
Todd County Public Health- 320-732-4440 or toll free 800-732-4440, WIC- 320-732-4456

Central Lakes College
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Transportation
Brainerd Area Taxi -218-828-1111
Crow Wing County Public Transit -218-825-7433 or toll free 1-866-925-7433
Dial-A-Ride -218-825-7433
Transportation to a Doctor's Appointment/Hospital
bridgesofhopemn.org/resources/transportation.html
Minneapolis Airport to Brainerd-218-855-6973
Crow Wing County Veteran Services-218-824-1058
MN Department of Veterans Affairs - www.mdva.state.mn.us/
Care Cab (Medical)- 1-800-450-4227
Medivan (Medical)-1-800-422-0976
Staples area transportation: People's Express – 1-800-450-0123
Wadena County Friendly Rider (bus service), 218-631-5730/888-773-5500

College Polices
Central Lakes College polices are located on the CLC website: www.clcmn.edu/college-policies/
CLC is committed to a policy of nondiscrimination in employment and education opportunity. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in, programs, services, and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law. This information is available in alternative format upon a 48-hour advance request by contacting Accessibility Services, accessibilityservices@clcmn.edu, office E138 at 218-855-8175. Consumers with hearing or speech impairments may contact us via their preferred Telecommunications Relay Service.

Telephone Directory

CLC Toll Free.....800-933-0346
General Information.....218-855-8000
Administration.....218-855-8051
Brainerd Bookstore & Cashier.....218-855-8248
Staples Bookstore & Cashier.....218-894-5118
Business & Industry Center.....218-855-8142
Business Office.....218-855-8230
Computer Commons Help Desk.....218-855-8200
Library.....218-855-8180
Student Service Center (Admissions, Advising, Counseling, Financial Aid, Registration).....218-855-8031

For up-to-date information check the CLC Website at www.clcmn.edu

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Ph.D. Old Dominion University, VA

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M.S. University of North Texas
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