



**PROGRAMS
OF STUDY**
2014-2016

CLC CENTRAL[®]
LAKES COLLEGE

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For detailed information about college policies, tuition, financial aid information, and course schedule visit: **www.clcmn.edu**

MN State Colleges & Universities Office of the General Counsel

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DEGREES, DIPLOMAS AND CERTIFICATES



Associate in Arts Degree

An Associate in Arts (A.A.) degree may be awarded upon successful completion of a 60 credit program in the liberal arts and sciences curriculum designed to constitute the first two years of a baccalaureate degree. An A.A. degree requires the completion of at least a 40 credit general education curriculum that fulfills the Minnesota Transfer Curriculum goal areas.

Associate in Science Degree

An Associate in Science (A.S.) degree may be awarded upon successful completion of a 60 to 64 credit program in a designated field or area which transfers to a baccalaureate major in a related scientific, technological, or other non-liberal arts professional field. An A.S. degree must have one or more articulation agreement(s) between the institution awarding the A.S. degree and the institution awarding a related baccalaureate degree. An A.S. degree shall include a minimum of 30 semester credits in general education selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum. An A.S. degree may also be designed to prepare students for employment.

Associate in Fine Arts Degree

An Associate in Fine Arts (A.F.A.) degree may be awarded upon successful completion of a 60 credit program in a designated discipline in fine arts. An A.F.A. degree is designed for transfer to a baccalaureate degree, as specified in an articulation agreement between the partnering institutions. An A.F.A. degree offered by a college must have at least one articulation agreement between the institution awarding the degree and an institution awarding a baccalaureate degree in a related fine arts discipline. An A.F.A. degree shall include a minimum of 24 semester credits in general education selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum.

Associate in Applied Science Degree

An Associate in Applied Science (A.A.S.) degree may be awarded upon successful completion of a 60 to 72 credit program. An A.A.S. degree is intended to prepare students for employment or may be designed to transfer to a related baccalaureate major. An A.A.S. degree shall include 25 percent of the total semester credits in general education credits. General education courses shall be selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum.

Diploma

A diploma may be awarded upon successful completion of a 30 to 72 credit program. A diploma is intended to provide students with employment skills.

Certificate

A certificate may be awarded upon successful completion of a 9 to 30 credit specialized program of study.

ACADEMIC AND CAREER MAJORS

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LIBERAL ARTS AND SCIENCES

GENERAL STUDIES AND HUMANITIES

ASSOCIATE IN ARTS DEGREE

Liberal Arts and Sciences Associate in Arts Degree Four-Year College Transfer

An Associate in 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 in 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.

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, you must officially “Apply to Graduate”.
- 20 credits must be earned at Central Lakes College to be eligible for an Associate in Arts Degree.
- A total of 60 college level credits are required for an Associate in Arts Degree.
- Classes may meet requirements for more than one goal area, but credit will not be awarded for any course twice.

Minnesota Transfer Curriculum (MNTC)

Central Lakes College’s version of the Minnesota General Education Transfer Curriculum is a 40-credit course cluster designed to transfer by formal agreement to all Minnesota public colleges and universities where it will meet all lower division general education requirements. It is certified by the faculty of CLC as meeting the goals and student competencies for general education agreed to by the faculties and official administrative representatives of all Minnesota public higher education systems.

CLC’s transfer curriculum, like similar curricula in all public colleges and universities

in the state of Minnesota, is designed to provide students with a broad liberal arts and sciences foundation integrated with communications and thinking skills, and a study of contemporary concerns – all essential to serving an individual student’s lifetime personal, social, and career needs. This curriculum recognizes that knowledge of the liberal arts and sciences, by its universality and timelessness, equips students to transcend individual differences and the inevitable changes affecting life in the 21st century.

This curriculum identifies the knowledge and skills people need to participate successfully in a complex and changing world. Its courses emphasize our common membership in the human community; our personal need for intellectual fulfillment achieved through lifelong learning, and our daily involvement in a diverse world. Courses emphasize diverse ways of knowing, factual content, theories and models, and the creative modes of a broad spectrum of disciplines and interdisciplinary fields. Emphasized equally are the basic skills of discovery, integration, application, and communication. Students must complete courses in 10 goals of the MNTC. Grades of D- or higher will transfer into the MNTC. To complete the MNTC, a student must earn a cumulative grade point average of at least 2.0 in MNTC courses

Goal Area 1 Written & Oral Communication (9-11 credits minimum)

To develop writers and speakers who use the English language effectively and who read, write, speak and listen critically. As a base, all students should complete introductory communication requirements early in their collegiate studies. Writing competency is an ongoing process to be reinforced through writing-intensive courses and writing across the curriculum. Speaking and listening skills need reinforcement through multiple opportunities for interpersonal communication, public speaking, and discussion.

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Students will be able to:

- Locate, evaluate, and synthesize in a responsible manner material from diverse sources and points of view.
- Select appropriate communication choices for specific audiences.
- Construct logical and coherent arguments.
- Use authority, point-of-view, and individual voice and style in their writing and speaking.
- Employ syntax and usage appropriate to academic disciplines and the professional world.
- Understand/demonstrate the writing and speaking processes through invention, organization, drafting, revision, editing and presentation.
- Participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.

A. Both ENGL 1410 and 1411 or ENGL 1421) are required:

- ENGL 1410 Composition I (4 cr)
- ENGL 1411 Composition II (4 cr)
- #ENGL 1421 Honors Composition II
Public and Professional Writing (4 cr) [Goal 9]

B. One of the following courses is required:

- ENGL 1422 Practical Writing (3 cr) [Goal 2]
- SPCH 1410 Intro to Communication Studies (3 cr)
- SPCH 1421 Interpersonal Communication (3 cr)
- SPCH 1431 Fund of Public Speaking (3 cr)
- SPCH 1464 Creative Communication (3 cr)
- SPCH 1470 Blogging and Vlogging (3 cr) [Goal 2]
- SPCH 1472 Online Social Networking (3 cr)
- SPCH 2421 Intercultural Communication (3 cr) [Goal 7]
- SPCH 2431 Small Group Communication (3 cr)
- THTR 1432 Digital Storytelling (3 cr) [Goal 6]
- THTR 1441 Oral Interpretation of Literature (3 cr)
- THTR 1461 Acting I (3 cr)

**Goal Area 2
Critical Thinking
(1 course)**

To develop thinkers who are able to unify factual, creative, rational, and value-sensitive modes of thought. Critical thinking will be taught and used throughout the general education curriculum in order to develop students' awareness of their own thinking and problem-solving procedures. To integrate new skills into their customary ways of thinking, students must be actively engaged in

practicing thinking skills and applying them to open-ended problems.

Students will be able to:

- Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.
- Imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives which can give alternative meanings or solutions to given situations or problems.
- Analyze the logical connections among the facts, goals, and implicit assumptions relevant to a problem or claim; generate and evaluate implications that follow from them.
- Recognize and articulate the value assumptions which underlie and affect decisions, interpretations, analyses, and evaluations made by ourselves and others.

- ENGL 1422 Practical Writing (3 cr) [Goal 1]
- ENGL 2450 World Literature (3 cr) [Goal 8]
- #MATH 1461 Honors Intro to Statistics .. (4 cr) [Goal 4]
- PHIL 1417 Immortality and the Afterlife . (3 cr) [Goal 6]
- PHIL 1421 Critical Thinking (3 cr) [Goal 9]
- PHIL 1460 Logic (3 cr) [Goal 4]
- PHIL 2410 Introduction to Philosophy .. (3 cr) [Goal 6]
- PSYC 2421 General Psychology (4 cr) [Goal 5]
- #PSYC 2423 Honors
General Psychology (4 cr) [Goal 5]
- READ 1401 College Reading (3 cr)
- SOCL 1401 Introduction to Sociology ... (3 cr) [Goal 5]
- SPCH 1450 Intro to
Mass Communication (3 cr) [Goal 9]
- SPCH 1451 Argumentation and Debate (3 cr)
- SPCH 1470 Blogging and Vlogging (3 cr) [Goal 1]
- THTR 1455 Script Analysis (3 cr) [Goal 6]

**Goal Area 3
Natural Sciences
(6 credits minimum)**

To improve students' understanding of natural science principles and of the methods of scientific inquiry, i.e., the ways in which scientists investigate natural science phenomena. As a basis for lifelong learning, students need to know the vocabulary of science and to realize that while a set of principles has been developed through the work of previous scientists, ongoing scientific inquiry and new

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knowledge will bring changes in some of the ways scientists view the world. By studying the problems that engage today's scientists, students learn to appreciate the importance of science in their lives and to understand the value of a scientific perspective. Students should be encouraged to study both the biological and physical sciences.

Students will be able to:

- Demonstrate understanding of scientific theories.
- Communicate their experimental findings, analyses, and interpretations both orally and in writing.
- Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.
- Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.

Two science courses from two of the following categories are recommended, one of which needs to be an analytical lab course. (Non-lab courses are identified with an asterisk *)

BIOL 1404 Human Biology	(3 cr)
BIOL 1411 Concepts of Biology	(3 cr)
BIOL 1415 Environmental Biology	(3 cr) [Goal 10]
*BIOL 1420 Nutrition	(3 cr)
#BIOL 1422 Biology 2day	(5 cr)
BIOL 1431 General Biology I	(5 cr)
BIOL 1432 General Biology II	(5 cr) [Goal 10]
BIOL 2411 Biology of Women	(3 cr) [Goal 7]
BIOL 2415 General Ecology	(4 cr) [Goal 10]
BIOL 2457 Microbiology	(4 cr)
BIOL 2467 Anatomy & Physiology I	(4 cr)
BIOL 2468 Anatomy & Physiology II	(4 cr)
CHEM 1407 Life Science Chemistry	(4 cr)
CHEM 1410 Environmental Chemistry	(3 cr) [Goal 10]
CHEM 1414 Fundamentals of Chemistry	(4 cr)
CHEM 1424 Chemical Principles I	(5 cr)
CHEM 1425 Chemical Principles II	(5 cr)
CHEM 2472 Organic Chemistry I	(5 cr)
CHEM 2473 Organic Chemistry II	(5 cr)
ESCI 1400 Geology of National Parks*	(3 cr) [Goal 10]

ESCI 1405 Astronomy	(4 cr)
ESCI 1411 Physical Geology	(4 cr)
ESCI 1421 Minnesota Geology	(3 cr)
ESCI 1430 Adapting to a Changing Planet	(3 cr) [Goal 8]
#ESCI 1431 Honors Adapt to a Changing Planet	(3cr) [Goal 8]
ESCI 1444 Natural Disasters*	(3 cr) [Goal 10]
ESCI 1451 Oceanography*	(3 cr) [Goal 10]
ESCI 1452 Oceanography Lab	(1 cr) [Goal 10]
ESCI 1454 Earth Science & the Environment	(4 cr) [Goal 10]
#ESCI 1455 Honors Earth Science & the Environment	(4 cr) [Goal 10]
#ESCI 1457 Honors Oceanography*	(3 cr) [Goal 10]
PHYS 1401 College Physics I	(4 cr)
PHYS 1402 College Physics II	(4 cr)
PHYS 1411 Classical Physics I	(5 cr)
PHYS 1412 Classical Physics II	(5 cr)
PHYS 1425 Honors Astronomy/Physics	(4 cr)
PHYS 1430 Concepts of Physics: Universe Hidden Charm	(3 cr)

Goal Area 4 Mathematical/ Logical Reasoning (3 credits minimum)

To increase students' knowledge about mathematical and logical modes of thinking. This will enable students to appreciate the breadth of applications of mathematics, evaluate arguments, and detect fallacious reasoning. Students will learn to apply mathematics, logic, and/or statistics to help them make decisions in their lives and careers. Minnesota's public higher education systems have agreed that developmental mathematics includes the first three years of a high school mathematics sequence through intermediate algebra.

Students will be able to:

- Illustrate historical and contemporary applications of mathematics/logical systems.
- Clearly express mathematical/logical ideas in writing.
- Explain what constitutes a valid mathematical/logical argument (proof).
- Apply higher-order problem-solving and/or modeling strategies.

MATH 1441 Concepts in Mathematics	(3 cr)
MATH 1460 Introduction to Statistics	(4 cr)
#MATH 1461 Honors Intro to Statistics	(4 cr) [Goal 2]
MATH 1470 College Algebra	(3 cr)
MATH 1472 Precalculus	(5 cr)
MATH 1477 Calculus I	(5 cr)

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MATH 1478 Calculus II (5 cr)
 MATH 2457 Linear Algebra (3 cr)
 MATH 2458 Multivariable Calculus (4 cr)
 MATH 2459 Differential Equations (4 cr)
 PHIL 1460 Logic (3 cr) [Goal 2]

Goal Area 5 History and the Social and Behavioral Sciences (9 credits minimum)

To increase students' knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events, and ideas. Such knowledge will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

Students will be able to:

- Employ the methods and data that historians and social and behavioral scientists use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods and cultures.
- Use and critique alternative explanatory systems or theories.
- Develop and communicate alternative explanations or solutions for contemporary social issues.

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) [Goal 8]
 ANTH 2411
 Cultures of American Indians (3 cr) [Goal 7]
 ECON 1450 The American Economy (3 cr)
 ECON 2401 Principles of Economics-Macro (3 cr)
 ECON 2402 Principles of Economics-Micro (3 cr)
 ENVR 1400 Intro to
 Environmental Studies (3 cr) [Goal 10]
 GEOG 1400 Physical Geography (3 cr) [Goal 10]
 GEOG 1410 Maps and Places (3 cr) [Goal 8]
 GEOG 1421 World Regional Geography . (3 cr) [Goal 8]
 GEOG 1459 Cultural Geography (3 cr) [Goal 8]
 #GEOG 1460
 Honors Cultural Geography (3 cr) [Goal 8]
 GLST 1401 Introduction to
 Global Studies (3 cr) [Goal 8]
 GLST 1491 Global Studies Experience . (1-4 cr) [Goal 8]
 HIST 1406 Western Civilization,
 Pre-History to 1500 (3 cr)

HIST 1407 Western Civilization, 1500 to Present . (3 cr)
 HIST 1412 World History I,
 Beginning to 1500 (3 cr) [Goal 8]
 HIST 1413 World History II,
 1500 to Present (3 cr) [Goal 8]
 HIST 1472 U.S. History to 1865 (3 cr) [Goal 7]
 HIST 1473 U.S. History Since 1865 (3 cr) [Goal 7]
 #HIST 1475 Honors U.S.
 History 1865 to Present (3 cr) [Goal 7]
 HIST 2404 Minnesota History (3 cr)
 HIST 2411 American Indian History (3 cr) [Goal 7]
 HIST 2420 History of
 Women in the U.S. (3 cr) [Goal 7]
 POLS 1430 Introduction to
 Political Science (3 cr) [Goal 9]
 POLS 1435 American
 Government & Politics (3 cr) [Goal 9]
 POLS 1439 State and
 Local Government (3 cr) [Goal 9]
 POLS 1440 Society and Law (3 cr) [Goal 9]
 POLS 2401 Federal Indian Policy (3 cr)
 POLS 2402 Tribal Government (3 cr) [Goal 9]
 POLS 2450 International Relations (3 cr) [Goal 8]
 PSYC 1411 Personal Growth & Behavior (3 cr)
 PSYC 1420 Psychology & Modern Life .. (3 cr) [Goal 9]
 PSYC 1423 Positive Psychology (3 cr) [Goal 9]
 PSYC 2421 General Psychology (4 cr) [Goal 2]
 #PSYC 2423 Honors
 General Psychology (4 cr) [Goal 2]
 PSYC 2425 Conflict, Trauma & PTSD (3 cr) [Goal 7]
 PSYC 2431 Human Development (3 cr)
 PSYC 2435 Educational Psychology (3 cr) [Goal 7]
 PSYC 2470 Abnormal Psychology (3 cr) [Goal 7]
 SOCL 1401 Introduction to Sociology ... (3 cr) [Goal 2]
 #SOCL 1403 Honors
 Introduction to Sociology (3 cr) [Goal 8]
 SOCL 1472 Sociology of the Family (3 cr)
 SOCL 2405 Criminology (3 cr)
 SOCL 2411 Social Problems (3 cr) [Goal 9]
 SOCL 2422 Culture & Environment (3 cr) [Goal 10]
 SOCL 2480 Sociology of Death & Dying (3 cr)
 SOCL 2481 Race,
 Ethnicity & Oppression (3 cr) [Goal 7]
 SPAN 2425 Cultures of Latin America .. (3 cr) [Goal 8]
 THTR 2450 Theatre History (3 cr) [Goal 8]
 WMST 1400 Intro to Women's Studies .. (3 cr) [Goal 7]
 WMST 2420 Women & Religion (3 cr) [Goal 7]

Goal Area 6 Humanities and Fine Arts (9 credits minimum)

To expand students' knowledge of the human condition and human cultures, especially in relation to behavior, ideas, and values expressed in works of human imagination and thought. Through study in disciplines such as literature, philosophy, and the fine arts, students will engage in critical analysis, form aesthetic judgments, and develop an appreciation of the arts and humanities as funda-

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mental to the health and survival of any society. Students should have experiences in both the arts and humanities.

Students will be able to:

- Respond critically to works in the arts and humanities.
- Engage in the creative process or interpretive performance.
- Articulate an informed personal reaction to works in the arts and humanities.
- Demonstrate awareness of the scope and variety of works in the arts and humanities.
- Understand those works as expressions of individual and human values within an historical and social context.

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)	[Goal 7]
ARTS 1401 Black & White Photo I	(3 cr)	
ARTS 1403 Color Photo I	(3 cr)	
ARTS 1420 The Art of Digital Photography	(3 cr)	
ARTS 1458 Drawing	(3 cr)	
ARTS 1459 2-D Design & Color	(3 cr)	
ARTS 1467 Watercolor Painting	(3 cr)	
ARTS 1468 Painting	(3 cr)	
ARTS 1470 Art Appreciation	(3 cr)	
ARTS 1487 Ceramics: Beginning Hand Building	(3 cr)	
ARTS 1488 Ceramics: Beginning Throwing	(3 cr)	
ARTS 1489 Intermediate Ceramics	(3 cr)	
ARTS 2401 Black & White Photo II	(3 cr)	
ARTS 2403 Color Photo II	(3 cr)	
ARTS 2485 American Indian Art	(3 cr)	[Goal 7]
ARTS 2486 Art History/Ancient	(3 cr)	
ARTS 2487 Art History/Modern	(3 cr)	
ARTS 2490 Art History/Non-Western	(3 cr)	[Goal 8]
ENGL 1450 Intro to Humanities	(3 cr)	[Goal 8]
ENGL 1452 Classical Mythology	(3 cr)	
ENGL 1454 Film Appreciation	(3 cr)	
#ENGL 1460 Honors Literature: Great Books	(3 cr)	
ENGL 1463 Introduction to Literature	(3 cr)	[Goal 7]
ENGL 1468 Poetry	(3 cr)	
ENGL 1469 American Short Story	(3 cr)	
ENGL 1477-78 Authors in Focus	(1-3 cr ea)	
ENGL 2451 Women in Literature	(3 cr)	
ENGL 2455 American Indian Literature	(3 cr)	[Goal 7]
ENGL 2457 British Literature Pre-1800	(3 cr)	
ENGL 2458 British Literature 1800-Present	(3 cr)	
ENGL 2467 American Literature Pre-1861	(3 cr)	[Goal 7]
ENGL 2468 American Literature 1861-Present	(3 cr)	[Goal 7]
ENGL 2470 Creative Nonfiction	(3 cr)	
ENGL 2483 Creative Writing	(3 cr)	
ENGL 2484 Advanced Creative Writing	(3 cr)	

MUSC 1403 American Popular Music	(3 cr)	[Goal 7]
MUSC 1405 Jazz Band	(1 cr)	
MUSC 1408 Community Band	(1 cr)	
MUSC 1415 Brass Ensemble	(1 cr)	
MUSC 1418 Woodwind Ensemble	(1 cr)	
MUSC 1421 Cantare' Concert Chorale	(1 cr)	
MUSC 1431 Chamber Singers	(1 cr)	
MUSC 1450 Music in World Cultures	(3 cr)	[Goal 8]
MUSC 1452 Intro to Music Industry	(3 cr)	[Goal 9]
MUSC 1453 Audio Recording	(3 cr)	
MUSC 1455 Voice Training	(2 cr)	
MUSC 1457 Music Appreciation	(3 cr)	
MUSC 1459 Fundamentals of Music	(3 cr)	
MUSC 2401 Evolution of Jazz	(3 cr)	[Goal 7]
Applied Music Courses	(1 cr each)	
PHIL 1411 World Religions	(3 cr)	[Goal 9]
PHIL 1415 Philosophy and Popular Culture	(3 cr)	
PHIL 1417 Immortality and the Afterlife	(3 cr)	[Goal 2]
PHIL 2410 Intro to Philosophy	(3 cr)	[Goal 2]
PHIL 2420 Ethics	(3 cr)	[Goal 9]
#PHIL 2421 Honors Ethics	(3 cr)	[Goal 9]
PHIL 2430 Contemporary Moral Problems	(3 cr)	[Goal 9]
SPAN 2420 Many Faces of Mexico	(3 cr)	[Goal 8]
SPAN 2404 Intermediate Spanish II	(4 cr)	[Goal 8]
THTR 1430 You Tube is a Stage	(3 cr)	
THTR 1432 Digital Storytelling	(3 cr)	[Goal 1]
THTR 1442 Improvisation	(3 cr)	
THTR 1443 Stage to Screen	(3 cr)	
THTR 1451 Introduction to Theatre	(3 cr)	[Goal 8]
THTR 1452 Stage Make-up	(3 cr)	
THTR 1453 Theatre Costuming	(3 cr)	
THTR 1455 Script Analysis	(3 cr)	[Goal 2]
THTR 1462 Acting II	(3 cr)	
THTR 1466 Acting Lab	(1 cr)	
THTR 1471 Theatre Production Lab	(1 cr)	
THTR 1478 Technical Theatre	(3 cr)	
THTR 1480 The Theatre Experience	(2 cr)	
THTR 1481 The Theatre Experience-NY	(2 cr)	
THTR 1482 Theatre Experience-London	(2 cr)	[Goal 8]
#THTR 1483 Honors The Theatre Experience	(3 cr)	[Goal 7]
THTR 1496 Summer Theatre Workshop	(3 cr)	
THTR 2410 Children's Theatre	(3 cr)	
THTR 2441 Directing for the Theatre	(3 cr)	
THTR 2443 Creative Drama with Children	(3 cr)	
THTR 2480 Theatre for a Diverse Population	(3 cr)	[Goal 7]
THTR 2491 Theatre Independent Study	(1-3 cr)	
WMST 2402 Gender and Popular Culture	(3 cr)	[Goal 7]

Goal Area 7 Human Diversity (1 course)

To increase students' understanding of individual and group differences (e.g. race, gender, class) and their knowledge of the traditions and values of various groups in the United States. Students should be able to evaluate the

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United States' historical and contemporary responses to group differences.

Students will be able to:

- Understand the development of and the changing meanings of group identities in the United States' history and culture.
- Demonstrate an awareness of the individual and institutional dynamics of unequal power relations between groups in contemporary society.
- Analyze their own attitudes, behaviors, concepts and beliefs regarding diversity, racism, and bigotry.
- Describe and discuss the experience and contributions (political, social, economic, etc.) of the many groups that shape American society and culture, in particular those groups that have suffered discrimination and exclusion.
- Demonstrate communication skills necessary for living and working effectively in a society with great population diversity.

AMSL 2420 Deaf Culture	(3 cr)	[Goal 6]
ANTH 2411 Cultures of American Indians	(3 cr)	[Goal 5]
ARTS 2485 American Indian Art	(3 cr)	[Goal 6]
BIOL 2411 Biology of Women	(3 cr)	[Goal 3]
ENGL 1463 Introduction to Literature	(3 cr)	[Goal 6]
ENGL 2455 American Indian Literature	(3 cr)	[Goal 6]
ENGL 2467 American Literature Pre-1861	(3 cr)	[Goal 6]
ENGL 2468 American Literature 1861-Present	(3 cr)	[Goal 6]
HIST 1472 U.S. History to 1865	(3 cr)	[Goal 5]
HIST 1473 U.S. History Since 1865	(3 cr)	[Goal 5]
#HIST 1475 Honors U.S. History 1865 to Present	(3 cr)	[Goal 5]
HIST 2411 American Indian History	(3 cr)	[Goal 5]
HIST 2420 History of Women in the U.S.	(3 cr)	[Goal 5]
MUSC 1403 American Popular Music	(3 cr)	[Goal 6]
MUSC 2401 Evolution of Jazz	(3 cr)	[Goal 6]
PSYC 2425 Conflict, Trauma and PTSD	(3 cr)	[Goal 5]
PSYC 2435 Educational Psychology	(3 cr)	[Goal 5]
PSYC 2470 Abnormal Psychology	(3 cr)	[Goal 5]
SOCL 2481 Race, Ethnicity & Oppression	(3 cr)	[Goal 5]
SPCH 2421 Intercultural Communication	(3 cr)	[Goal 1]
#THTR 1483 Honors The Theatre Experience	(3 cr)	[Goal 6]
THTR 2480 Theatre for a Diverse Population	(3 cr)	[Goal 6]
WMST 1400 Intro to Women's Studies	(3 cr)	[Goal 5]

WMST 2402 Gender and Popular Culture	(3 cr)	[Goal 6]
WMST 2420 Women & Religion	(3 cr)	[Goal 5]

Goal Area 8 Global Perspective (1 course)

To increase students' understanding of the growing interdependence of nations and peoples and develop their ability to apply a comparative perspective to cross-cultural social, economic and political experiences.

Students will be able to:

- Demonstrate knowledge of cultural, social, religious and linguistic differences.
- Describe and analyze political, economic, and cultural elements which influence relations of states and societies in their historical and contemporary dimensions.
- Understand the role of a world citizen and the responsibility world citizens share for their common global future.
- Analyze specific international problems, illustrating the cultural, economic, and political differences that affect their solution.

AMSL 1410 American Sign Language I	(4 cr)
AMSL 1412 American Sign Language II	(4 cr)
AMSL 2410 American Sign Language III	(4 cr)
AMSL 2412 American Sign Language IV	(4 cr)
AMSL 2414 Conversational ASL	(1 cr)
ANTH 1457 Cultural Anthropology	(3 cr) [Goal 5]
ARTS 2490 Art History/Non-Western	(3 cr) [Goal 6]
ENGL 1450 Intro to Humanities	(3 cr) [Goal 6]
ENGL 2450 World Literature	(3 cr) [Goal 2]
ESCI 1430 Adapting to a Changing Planet	(3 cr) [Goal 3]
#ESCI 1431 Honors Adapt to a Changing Planet	(3 cr) [Goal 3]
GEOG 1410 Maps and Places	(3 cr) [Goal 5]
GEOG 1421 World Regional Geography	(3 cr) [Goal 5]
GEOG 1459 Cultural Geography	(3 cr) [Goal 5]
#GEOG 1460 Honors Cultural Geography	(3 cr) [Goal 5]
GLST 1401 Introduction to Global Studies	(3 cr) [Goal 5]
GLST 1491 Global Studies Experience	(1-4 cr) [Goal 5]
HIST 1412 World History I, Beginning to 1500	(3 cr) [Goal 5]
HIST 1413 World History II, 1500 to Present	(3 cr) [Goal 5]
MUSC 1450 Music in World Cultures	(3 cr) [Goal 6]
OJIB 1401 Beginning Ojibwe I	(4 cr)
OJIB 1402 Beginning Ojibwe II	(4 cr)

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OJIB 2401 Intermediate Ojibwe I (4 cr)
 OJIB 2402 Intermediate Ojibwe (3 cr)
 POLS 2450 International Relations (3 cr) [Goal 5]
 #SOCL 1403 Honors Introduction
 to Sociology (3 cr) [Goal 5]
 SPAN 1401 Beginning Spanish I (4 cr)
 SPAN 1402 Beginning Spanish II (4 cr)
 SPAN 2401 Intermediate Spanish I (4 cr)
 SPAN 2404 Intermediate Spanish II (4 cr) [Goal 8]
 SPAN 2420 Many Faces of Mexico (3 cr) [Goal 6]
 SPAN 2425 Cultures of Latin America .. (3 cr) [Goal 5]
 SUST 1400 Intro to Sustainability (3 cr)
 THTR 1451 Introduction to Theatre (3 cr) [Goal 6]
 THTR 1482 Theatre Experience-London . (2 cr) [Goal 6]
 THTR 2450 Theatre History (3 cr) [Goal 5]

Goal Area 9 Ethical & Civic Responsibility (1 course)

To develop students' capacity to identify, discuss, and reflect upon the ethical dimensions of political, social, and personal life and to understand the ways in which they can exercise responsible and productive citizenship. While there are diverse views of social justice or the common good in a pluralistic society, students should learn that responsible citizenship requires them to develop skills to understand their own and other's positions, be part of the free exchange of ideas, and function as public-minded citizens.

Students will be able to:

- Analyze and reflect on the ethical dimensions of legal, social, and scientific issues.
- Recognize the diversity of political motivations and interests of others.
- Identify ways to exercise the rights and responsibilities of citizenship.
- Examine, articulate, and apply their own ethical views.
- Understand and apply core concepts (e.g. politics, rights and obligations, justice, liberty) to specific issues.

#ENGL 1421 Honors Composition II
 Public and Professional Writing (4 cr) [Goal 1]
 MUSC 1452 Intro to Music Industry (3 cr) [Goal 6]
 PHIL 1411 World Religions (3 cr) [Goal 6]
 PHIL 1421 Critical Thinking (3 cr) [Goal 2]
 PHIL 2420 Ethics (3 cr) [Goal 6]
 #PHIL 2421 Honors Ethics (3 cr) [Goal 6]
 PHIL 2430 Contemporary
 Moral Problems (3 cr) [Goal 6]
 POLS 1430 Introduction to

Political Science (3 cr) [Goal 5]
 POLS 1435 American
 Government & Politics (3 cr) [Goal 5]
 POLS 1439 State and
 Local Government (3 cr) [Goal 5]
 POLS 1440 Society and Law (3 cr) [Goal 5]
 POLS 2402 Tribal Government (3 cr) [Goal 5]
 PSYC 1420 Psychology & Modern Life .. (3 cr) [Goal 5]
 PSYC 1423 Positive Psychology (3 cr) [Goal 5]
 SOCL 2411 Social Problems (3 cr) [Goal 5]
 SPCH 1450 Intro to
 Mass Communication (3 cr) [Goal 2]

Goal Area 10 People and the Environment (1 course)

To improve students' understanding of today's complex environmental challenges. Students will examine the interrelatedness of human society and the natural environment. Knowledge of both bio-physical principles and sociocultural systems is the foundation for integrative and critical thinking about environmental issues.

Students will be able to:

- Propose and assess alternative solutions to environmental problems.
- Articulate and defend the actions they would take on various environmental issues.
- Explain the basic structure and function of various natural ecosystems and of human adaptive strategies within those systems.
- Discern patterns and interrelationships of bio-physical and socio-cultural systems.
- Describe the basic institutional arrangements (social, legal, political, economic, religious) that are evolving to deal with environmental and natural resource challenges.
- Evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions. Propose and assess alternative solutions to environmental problems.

BIOL 1415 Environmental Biology (3 cr) [Goal 3]
 BIOL 1432 General Biology II (5 cr) [Goal 3]
 BIOL 2415 General Ecology (4 cr) [Goal 3]
 CHEM 1410 Environmental Chemistry ... (3 cr) [Goal 3]
 ENVR 1400 Intro to
 Environmental Studies (3 cr) [Goal 5]
 ESCI 1400 Geology of National Parks ... (3 cr) [Goal 3]

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ESCI 1444 Natural Disasters (3 cr) [Goal 3]
ESCI 1451 Oceanography (3 cr) [Goal 3]
ESCI 1452 Oceanography Lab(1 cr) [Goal 3]
ESCI 1454 Earth Science & the Environment	..... (4 cr) [Goal 3]
#ESCI 1455 Honors Earth Science & the Environment	..... (4 cr) [Goal 3]
#ESCI 1457 Honors Oceanography	..... (3 cr) [Goal 3]
GEOG 1400 Physical Geography	..... (3 cr) [Goal 5]
SOCL 2422 Cultural & Environment	..... (3 cr) [Goal 5]

Fitness for Life (2 credits)

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

HLTH 1501 Personal Health and Wellness	..... (3 cr)
HLTH 1507 Drug Awareness	..... (3 cr)
HLTH 1510 Intro to Massage	..... (2 cr)
HLTH 1531 Women's Health	..... (3 cr)
HLTH 1541 Human Sexuality	..... (3 cr)
PHED 1502 Circuit Training	..... (2 cr)
PHED 1503 Advanced Circuit Training	..... (1 cr)
PHED 1505 Fitness Walking	..... (2 cr)
PHED 1506 Aerobic Exercise	..... (2 cr)
PHED 1507 Basic Horsemanship	..... (2 cr)
PHED 1508 Bicycling	..... (2 cr)
PHED 1510 Beginning Skiing/Snowboarding	..... (2 cr)
PHED 1511 Advanced Skiing/Snowboarding	..... (2 cr)
PHED 1512 Beginning Yoga	..... (2 cr)
PHED 1513 Aerobic Conditioning	..... (2 cr)
PHED 1514 Cardio Sampler	..... (2 cr)
PHED 1520 Advanced Yoga	..... (2 cr)
PHED 1521 Body Conditioning	..... (2 cr)
PHED 1522 Weight Training	..... (2 cr)
PHED 1523 Strength Training for Women	..... (2 cr)
PHED 1524 Recreational Sampler	..... (2 cr)
PHED 1525 Personal Protection Awareness	..... (2 cr)
PHED 1530 Beginning Swimming	..... (1 cr)
PHED 1531 Intermediate & Advanced Swimming	..... (1 cr)
PHED 1534 Beginning Golf	..... (2 cr)
PHED 1536 Advanced Golf	..... (2 cr)
PHED 1541 Bowling	..... (2 cr)
PHED 1544 Basketball - Coed	..... (1 cr)
PHED 1553 Power Volleyball	..... (2 cr)
PHED 1594 Fitness for Life	..... (2 cr)
PHED 2501-2517 Varsity Sports	..... (1 cr)
UWDV 1301 PADI Basic Open Water Diving	..... (4 cr)

Student Success (1 credit)

Students may select one course from the following College and Career Studies courses. It is recommended that new (first time) college students enroll in a course from section A during their first semester. Students who have already completed an Associate or Bachelor's Degree may apply for a Waiver/Exemption from this requirement.

A) First Year Experience/Orientation Courses

CCST 1550 On Course: Introduction to College	... (1 cr)
CCST 1552 On Course: Success Strategies Athletes	..... (1 cr)
CCST 1570 Thinking, Learning and Communicating	..... (3 cr)

B) Academic and Career Success Courses

CCST 1510 College Success Skills	..... (3 cr)
CCST 1520 Career Planning	..... (2 cr)

General Electives (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.

Students must be accepted into the Honors Program in order to take these courses.

ASSOCIATE IN ARTS DEGREE - HONORS

Program Description

The Honors Associate of Arts program is for high-achieving students intending to transfer to a four year college or university. Of the 60 credits required for the AA degree, 12 will be designated 'Honors' core credits. The honors classes will be rigorous, limited in size, and characterized by a high level of intellectual engagement – coursework will emphasize inquiry, investigation, and analysis. In addition, students will receive leadership training, participate in a service learning activity, and be encouraged to join and participate in the Phi Theta Kappa Academic Honors Society.

Program Requirements

CCST 2510 Honors Service Learning (1 cr)
 CCST 2512 Honors Leadership Development (3 cr)
 ENGL 1421 Honors
 Composition II: Public & Professional Writing (4 cr)
 ENGL 1460 Honors Literature: The Great Books . (3 cr)
 ESCI 1455 Honors
 Earth Science and the Environment (4 cr)
 GEOG 1460 Honors Cultural Geography (3 cr)
 HIST 1475 Honors U.S. History 1865 to Present .. (3 cr)
 MATH 1461 Honors Introduction to Statistics (4 cr)
 PHIL 2421 Honors Ethics (3 cr)
 PSYC 2423 Honors General Psychology (4 cr)
 SOCL 1403 Honors Introduction to Sociology ... (3 cr)
 THTR 1483 Honors The Theatre Experience (3 cr)

Special Program Requirements

CCST 2512: Honors Leadership Development is required - enrolling in this course during a student's sophomore year is recommended. CCST 2510, the one credit service learning component, may be linked to an existing course or independent study.

Admissions

Those meeting the eligibility standards must complete the application form found on the Central Lakes College website and submit an essay. Applicants completing these steps will be admitted to the program on a first come/first serve basis. The annual cohort limit for the program is 24 students.

Transfer Opportunities

Central Lakes College is exploring articulation agreements with area university honors programs to allow for transfer upon graduation into their honors programs with advanced standing. An Associate in 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 Honors A.A. degree is the Minnesota General Education 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.

For more information contact

Admissions Office

218-855-8031

askclc@clcmn.edu



AMERICAN INDIAN STUDIES CERTIFICATE

Department Description

Courses in Anthropology address questions about the human experience: What does it mean to be human? How does the human experience vary across time and culture? How do people organize their lives to make sense of the world in which they live? How does culture influence how people interpret their world? Students of anthropology learn to be respectful of diversity by understanding the reasons behind our differences. They develop a global perspective by learning to look beyond their own world view to see the world through other eyes. Students also develop analysis skills, communications skills and an understanding of many different cultures. The field of anthropology includes both cultural anthropology and archeology, along with physical and linguistic anthropology.

Program Learning Outcomes

Graduates will be able to:

- Identify and apply alternative explanatory systems or theories.
- Identify and communicate alternative explanations for contemporary social issues.
- Identify the methods and data that historians and social and behavioral sciences use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods or cultures.

Special Department Information:

Students in this program may earn a certificate that will enrich their knowledge of the American Indians of the central Minnesota region. The American Indian Studies certificate explores the culture, history, art and literature of the American Indian.

Transfer Opportunities

Anthropology courses generally transfer to all accredited schools. The issues addressed in anthropology prepare students to study in many fields. All aspects of life today can be enhanced by a cross-cultural perspective.

American Indian Studies Certificate

Program Course Requirements

Student must choose 12 credits from the following list:

ANTH 2411 Culture of American Indians	(3 cr)
ARTS 2485 American Indian Art	(3 cr)
ENGL 2455 American Indian Literature	(3 cr)
HIST 2411 American Indian History	(3 cr)
POLS 2401 Federal Indian Policy	(3 cr)

GRADUATION REQUIREMENT 12 CREDITS

DEAF STUDIES CERTIFICATE

Department 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.

Department Learning Outcomes

Graduates will be able to:

- 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.

Special Department Information:

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.

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.

Deaf Studies Certificate Program Course Requirements

AMSL 1410 American Sign Language I	..... (4 cr)
AMSL 1412 American Sign Language II	..... (4 cr)
AMSL 2410 American Sign Language III	..... (4 cr)
AMSL 2412 American Sign Language IV	..... (4 cr)
AMSL 2414 Conversation ASL	..... (1 cr)
AMSL 2420 Deaf Culture	..... (3 cr)
SPCH 2421 Intercultural Communication	..... (3 cr)

GRADUATION REQUIREMENT 23 CREDITS

Special Program Requirements

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

1. The cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0.
2. Students must complete one third (7) of their credits at Central Lakes College.

ENVIRONMENTAL STUDIES CERTIFICATE**Program Information**

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.

Environmental Studies Certificate**Program Course Requirements****Choose 15 credits from the following:**

BIOL 1415 Environmental Biology	(3 cr)
BIOL 2415 General Ecology	(4 cr)
CHEM 1410 Environmental Chemistry	(3 cr)
ENVR 1400 Introduction to Environmental Studies	(3 cr)
ESCI 1444 Natural Disasters	(3 cr)
ESCI 1451 Oceanography	(3 cr)
ESCI 1452 Oceanography Lab	(1 cr)
ESCI 1454 Earth Science and the Environment ..	(4 cr)
SOCL 2422 Culture and Environment	(3 cr)

GRADUATION REQUIREMENT 15 CREDITS

Special Program Requirements

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

1. The cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0.
2. Residency Requirement: Students must complete one third (5) of their credits at Central Lakes College.

HEALTH SCIENCES BROAD FIELD A.S. DEGREE

Program Information

This program prepares students for a career in the healthcare occupation field. It provides a broad base of general education course work relevant to health sciences in preparation for transfer to a broad array of health sciences majors at a college or university. This degree program is designed to fulfill the prerequisite requirements for health science baccalaureate requirements for specific majors at all MnSCU system universities offering related degrees through a statewide articulation agreement. (please refer to the articulation agreement for a listing of majors and MnSCU universities). Even with this agreement in place, students should consult with both Central Lakes College and the 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.

Program Outcomes

Graduates will be able to:

- 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.

Special Program Requirements

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

1. College Cumulative GPA Requirement: The cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0.
2. Residency Requirement: students must complete one third (20) of their credits at Central Lakes College.

Transfer Opportunities

All courses in the degree program transfer and count toward the selected MnSCU university health sciences baccalaureate degree program requirements per the MnSCU Statewide Health Sciences Broad Field Articulation Agreement. (Refer to the Articulation Agreement for specific majors and MnSCU universities)

Health Sciences Broad Field AS Degree

Program Course Requirements

Required Courses:

BIOL 1431	General Biology I	.....	(5 cr)
BIOL 1420	Nutrition	.....	(3 cr)
BIOL 2457*	Microbiology	.....	(4 cr)
BIOL 2467*	Anatomy & Physiology I	.....	(4 cr)
BIOL 2468*	Anatomy & Physiology II	.....	(4 cr)
CHEM 1407	Life Science Chemistry	.....	(4 cr)
OR			
CHEM 1424	Chemical Principles I	.....	(5 cr)
ENGL 1410	Composition I	.....	(4 cr)
MATH 1460	Introduction to Statistics	.....	(4 cr)
MATH 1470	College Algebra	.....	(3 cr)
PHIL 2420	Ethics	.....	(3 cr)
PSYC 2421	General Psychology	.....	(4 cr)
PSYC 2431*	Human Development	.....	(3 cr)
SOCL 1401	Introduction to Sociology	.....	(3 cr)
SPCH 2421	Intercultural Communication	.....	(3 cr)
OR			
SPCH 1421	Interpersonal Communication	.....	(3 cr)

TOTAL REQUIRED: 51-52 credits

General Education:

Students must complete an additional 8-9 credits from the MN General Education Transfer Curriculum. (ENGL 1411 Composition II is highly recommended.)

TOTAL GENERAL EDUCATION: 8-9 credits

GRADUATION REQUIREMENT 60 CREDITS

NOTE: Total credits must include courses from at least 6 of the 10 Minnesota General Education Transfer Curriculum Goal Areas.

*Denotes Prerequisite

LATIN AMERICAN STUDIES CERTIFICATE

Department Description

Students may elect to complete a certificate in Latin American Studies that will enrich their understanding and appreciation of Latin American culture, communication, language, music, and art. This program is appropriate for citizens 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 enhances their abilities in the workplace. Students will have an opportunity to 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.

Latin American Studies Certificate

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 Face sof Mexico	..... (3 cr)
SPAN 2425 Cultures of Latin American	..... (3 cr)

GRADUATION REQUIREMENT 18 CREDITS

OJIBWE STUDIES CERTIFICATE



Department Description

Ojibwe Studies focuses on the language, history and culture of the Ojibwe within the context of the American Indian experience.

Special Department Information:

Students in this program may earn a certificate that will prepare them to enrich their knowledge of the Ojibwe people of the central Minnesota region.

Ojibwe Studies Certificate

Program Course Requirements

HIST 2406 Ojibwe History (3 cr)

Student must choose 2 courses from the following list:

OJIB 1401 Beginning Ojibwe I (4 cr)
 OJIB 1402 Beginning Ojibwe II (4 cr)
 OJIB 2401 Intermediate Ojibwe I (4 cr)
 OJIB 2402 Intermediate Ojibwe II (4 cr)

Student must choose 3 courses from the following list:

ANTH 2411 Culture of American Indians (3 cr)
 ARTS 2485 American Indian Art (3 cr)
 ENGL 2455 American Indian Literature (3 cr)
 HIST 2411 American Indian History (3 cr)
 OJIB 2500 Conversational Ojibwe (3 cr)
 POLS 2401 Federal Indian Policy (3 cr)
 Any Language course not taken above (4 cr)

GRADUATION REQUIREMENT 20 CREDITS

SUSTAINABILITY CERTIFICATE

Special Program Requirements

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

1. College Cumulative GPA Requirement: The cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0.
2. Residency Requirement: students must complete one third (3) of their credits at Central Lakes College.

Sustainability Certificate

Program Course Requirements

BIOL 2416	General Ecology	.....(3 cr)
ENVR 1120	Indigenous Environmental Knowledge	.....(3 cr)
SUST 1400	Introduction to Sustainability	.....(3 cr)
SUST 2160	Sustainability Case Studies	.....(2 cr)

ECONOMICS - Select 1 course:

ECON 1450	American Economy	.....(3 cr)
ECON 2401	Principals of Economics - Macro	....(3 cr)
ECON 2402	Principles of Economics - Micro	....(3 cr)

POLITICAL SCIENCE - Select 1 course:

POLS 1430	Introduction to Political Science	....(3 cr)
POLS 1435	American Government & Politics	....(3 cr)
POLS 2450	International Relations	.....(3 cr)

SOCIAL/CULTURAL - Select 1 course:

ANTH 1457	Cultural Anthropology	.....(3 cr)
GEOG 1459	Cultural Geography	.....(3 cr)
PSYC 2421	General Psychology	.....(4 cr)
SOCL 1401	Introduction to Sociology	.....(3 cr)

GRADUATION REQUIREMENT - 20 CREDITS

THEATRE PERFORMANCE A.F.A. DEGREE

Career Description

Theatre performance involves professional acting on stage, in motion pictures, video presentations, and other capacities as part of the entertainment industry and commercial as well as non-profit enterprises. It is a creative occupation calling upon a variety of dramatic expression and techniques to communicate with audiences. The theatrical industry is a highly competitive field and demanding but can be very rewarding. To succeed, one needs talent, training, and personality. It helps to be a quick learner, flexible, be disciplined and determined, enthusiastic and have a high level of fitness and stamina. You must be able to work successfully within a team and be prepared to travel, possibly overseas.

Program Information

The Associate Fine Arts degree is intended for students who wish to pursue a Bachelor of Arts in Theatre from a four-year university or college. The degree can also be used as a bridge into Bachelor of Fine Arts degree programs. The A.F.A. degree includes courses in acting, technical theatre, makeup, costuming, script analysis, and lab courses in acting and production. In addition, the 60-credit degree includes general education electives.

Program Learning Outcomes

Graduates will be able to:

- Communicate and function effectively in theatre performance environments as well as demonstrate an understanding of basic theatre performance direction, as well as its theory and application.
- Demonstrate a working knowledge of technical theatre components, such as lighting, sound, safety, theatre costume design, stage make-up and construction.
- Demonstrate competencies in standard theatre voice and movement techniques as well as demonstrate competence in basic acting techniques and audition competently for acting roles.

Transfer Opportunities

There is an articulation agreement between CLC and Southwest Minnesota State University at Marshall, Minn., which will allow A.F.A. degree students to transfer into the SMSU theatre program with junior class standing. Articulation agreements with other universities are being sought.

Career Titles

Actor, director, teacher, professor, designer, technician, production manager, stage manager, shop supervisor, technical director, salesperson, minister, motivational speaker, lawyer, customer service specialist, drama therapist, cruise ship performer.

A.F.A. Curriculum

First Year - Fall Semester

THTR 1455 Script Analysis (3 cr)
 THTR 1461 Acting I (3 cr)
 General Education (10 cr)

Total 16 Credits

Spring Semester

THTR 1452 Stage Make-up (3 cr)
 THTR 1462 Acting II (3 cr)
 General Education (9 cr)

Total 15 Credits

Second Year - Fall Semester

THTR 1478 Technical Theatre (3 cr)
 General Education (10 cr)

Total 13 Credits

Spring Semester

THTR 1453 Theatre Costuming (3 cr)
 General Education (11 cr)

Total 14 Credits

Student must complete two labs in either acting or theater production. These courses can be taken any semester. (2 cr)

GRADUATION REQUIREMENT 60 CREDITS

This suggested sequence is for full-time students. Part-time students will need more time to complete the program.

WOMEN'S STUDIES CERTIFICATE

Department 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. Students who graduate with a Women's Studies Certificate possess skills that are valuable and marketable to a wide variety of employers.

Department Learning Outcomes

Graduates will be able to:

- 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.
 - Demonstrate the ability to integrate the analysis of race and ethnicity, class, sexual identities, culture, religion, disabilities, and geography into explanations of power relations in the contemporary world.
- Examine the diversity of women's experiences, past and present, using the concept of gender to identify progress & problems.
 - Identify major feminist movements and explain how they shape policies and perspectives in the United States.
 - Demonstrate understanding of reproductive anatomy and the women's health initiative.

Women's Studies Certificate Program Course Requirements

BIOL 2411 Biology of Women	..... (3 cr)
ENGL 2451 Women in Literature	..... (3 cr)
HLTH 1531 Women's Health	..... (3 cr)
HIST 2420 History of Women in the U.S.	..... (3 cr)
WMST 1400 Intro to Women's Studies	..... (3 cr)
WMST 2402 Gender and Popular Culture	..... (3 cr)
WMST 2420 Women and Religion	..... (3 cr)

GRADUATION REQUIREMENT 12 CREDITS

Special Program Requirements

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

1. College Cumulative GPA Requirement: The cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0.
2. Residency Requirement: students must complete one third (4) of their credits at Central Lakes College.

Transfer Opportunities

This program has a transfer articulation agreement with Minnesota State University - Moorhead.



LIBERAL ARTS AND SCIENCES

GENERAL STUDIES AND HUMANITIES

DEPARTMENTS

AMERICAN SIGN LANGUAGE



Department 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.

Special Department Information:

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.

Department Learning Outcomes

Students will be able to:

- 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.

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.

Department Course Offerings

AMSL 1410 American Sign Language I	(4 cr)
AMSL 1412 American Sign Language II	(4 cr)
AMSL 2370 Topics in American Sign Language (1-6 cr)	
AMSL 2410 American Sign Language III	(4 cr)
AMSL 2412 American Sign Language IV	(4 cr)
AMSL 2414 Conversational ASL	(1 cr)
AMSL 2420 Deaf Culture	(3 cr)

ANTHROPOLOGY



Department Description

Courses in Anthropology address questions about the human experience: What does it mean to be human? How does the human experience vary across time and culture? How do people organize their lives to make sense of the world in which they live? How does culture influence how people interpret their world? Students of anthropology learn to be respectful of diversity by understanding the reasons behind our differences. They develop a global perspective by learning to look beyond their own world view to see the world through other eyes. Students also develop analysis skills, communications skills and an understanding of many different cultures. The field of anthropology includes both cultural anthropology and archeology, along with physical and linguistic anthropology.

Department Learning Outcomes

Graduates will be able to:

- Identify and apply alternative explanatory systems or theories.
- Identify and communicate alternative explanations for contemporary social issues.
- Identify the methods and data that historians and social and behavioral sciences use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods or cultures.

Career Description

Many anthropologists find careers working with diverse cultures or in any field requiring a global perspective such as education, public service, social and political activism, as well as private sector careers. An archeology focus prepares students to teach or to work with agencies that do excavation and/or survey archeology, artifact inventory, forensics, and related areas.

Transfer Opportunities

Anthropology courses generally transfer to all accredited schools. The issues addressed in anthropology prepare students to study in many fields. All aspects of life today can be enhanced by a cross-cultural perspective.

Department Course Offerings

- ANTH 1457 Cultural Anthropology (3cr)
 ANTH 2411 Cultures of American Indians (3cr)
 ANTH 2425 Cultures of Latin America (3cr)

ART



Department Description

The Art Department serves students planning to major or minor in Studio Art or Art Education, as well as students seeking to fulfill liberal arts requirements for transfer. 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.

Department Learning Outcomes

Students will be able to:

- Demonstrate proper use of tools and media
- Understand and apply the elements and principles of visual composition
- Make artwork that reflects a conscious thought process

Department Course Offerings

ARTS 1401 Black and White Photo I	(3cr)
ARTS 1403 Color Photo I	(3cr)
ARTS 1420 The Art of Digital Photography	(3cr)
ARTS 1458 Drawing	(3cr)
ARTS 1459 2-D Design & Color	(3cr)
ARTS 1467 Watercolor Painting	(3cr)
ARTS 1468 Painting	(3cr)
ARTS 1470 Art Appreciation	(3cr)
ARTS 1487 Ceramics: Beginning Hand Building	(3cr)
ARTS 1488 Ceramics: Beginning Throwing	(3cr)
ARTS 1489 Intermediate Ceramics	(3cr)
ARTS 1510 Autumn Landscape Photography	(3cr)
ARTS 1512 The Art of Photographing Wildflowers	(3cr)
ARTS 1596 Topics in Art	(1-6cr)
ARTS 1597 Topics in Art	(1-6cr)
ARTS 1598 Topics in Art	(1-6cr)
ARTS 2401 Black & White Photo II	(3cr)
ARTS 2403 Color Photo II	(3cr)
ARTS 2485 American Indian Art	(3cr)
ARTS 2486 Art History/Ancient	(3cr)
ARTS 2487 Art History/Modern	(3cr)
ARTS 2490 Art History/Non-Western	(3cr)
ARTS 2583 Independent Study	(1-6)

BIOLOGY



Department Description

Courses in Biological Sciences involve numerous approaches to the life processes, including interactions at the molecular, cellular, tissue, organ, organ system, organism, population, community, and ecosystem levels.

Department Learning Outcomes

Students will be able to:

- Formulate and test hypotheses by performing laboratory, simulation, or field experiments in natural science disciplines.
- Demonstrate understanding of scientific theories.
- Communicate experimental findings, analyses, and interpretations both orally and in writing.
- Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

Special Department Information

A number of courses in Biology do not have any special requirements, as they are designed for the inquisitive individual desiring to learn about life. There are also a number of courses that require prior knowledge gained in a prerequisite course.

Transfer Opportunities

Biology courses transfer to higher education institutions either as general electives or important components of a major. Students should check with their possible transfer institution before enrolling in a course.

Career Titles

Biologist, Biological Technician, Lab Technician, Environmental Biologist, Nurse, Medical Doctor, Dentist, Chiropractor, Research Scientist, Geneticist, Agronomist, Entomologist, Cell Biologist, Zoologist, Botanist, Limnologist, Ecologist, Microbiologist, Pathologist, Parasitologist, Hematologist, Physiologist, Anatomist, Virologist, Neurobiologist, Horticulturist, Wildlife Biologist, Gerontologists, Taxonomist, Veterinarian, Ichthyologist, Biotechnologist, Field Biologist, Histologist, Reproduction Biologist, Immunologist, Conservation Biologist, Endocrinologist, Embryologist, Algologist, Bryologist, Evolutionary Biologist, Paleontologist, Biochemist, Marine Biologist, Molecular Biologist, Ornithologist, Biology Instructor, Pharmacologist, Toxicologist, Forensic Scientist, Herpetologist, Mycologist, Behaviorist, Aquatic Biologist, Mammalogist, Archeologist, and Biological Sales.

Department Course Offerings

BIOL 2468 Anatomy & Physiology II	.....	(4cr)
BIOL 1404 Human Biology	.....	(3cr)
BIOL 1411 Concepts of Biology	.....	(3cr)
BIOL 1415 Environmental Biology	.....	(4cr)
BIOL 1420 Nutrition	.....	(3cr)
BIOL 1422 Biology 2day	.....	(5cr)
BIOL 1431 General Biology I	.....	(5cr)
BIOL 1432 General Biology II	.....	(5cr)
BIOL 2411 Biology of Women	.....	(3cr)
BIOL 2415 General Ecology	.....	(4cr)
BIOL 2416 General Ecology	.....	(3cr)
BIOL 2417 General Ecology Lab	.....	(1cr)
BIOL 2457 Microbiology	.....	(4cr)
BIOL 2467 Anatomy and Physiology I	.....	(4cr)
BIOL 2468 Anatomy & Physiology II	.....	(4cr)

CHEMISTRY



Department Description

Chemistry is a study of matter and all its interactions. It is central to our understanding of various disciplines such as biology, geology, materials science, medicine, physics and many branches of engineering. Chemistry and chemicals play a major role in our economy and affect our daily lives in a wide variety of ways. A course in chemistry can help you see how a scientist thinks about the world and how to solve problems. Knowledge and skills developed in chemistry will benefit you in many career paths and will help you become a better-informed citizen in a world that is becoming more technologically complex and interesting.

Department Learning Outcomes

Students will be able to:

- Formulate and test hypotheses by performing laboratory, simulation, or field experiments in natural science disciplines.
- Demonstrate understanding of scientific theories and the ways in which scientists develop, express, and question theories in the field of chemistry.
- Communicate their findings, analyses, and interpretations with other students and the instructor orally and in writing.

Special Program Requirements

Besides a natural curiosity about what makes up the world around us and why things are the way they are, basic math and algebra skills are required for problem solving and chemical modeling.

Transfer Opportunities

Courses taken in chemistry will help develop your problem solving skills—a talent that is highly valued in today's workplace. In addition, chemistry courses are required for almost all scientific and medical careers. And although technology continues to change at a rapid pace, the basic principles and concepts of chemistry remain the same. As a result, the knowledge and skills acquired in chemistry courses never become outdated and can transfer from one field of technology to another when making career choices or transitions.

Career Titles

Research Assistant
 Lab Assistant
 Analytical Chemistry Technician
 Production Chemist
 Quality Control Chemist
 Chemical Sales
 Environmental Chemist
 Chemistry Instructor

Department Course Offerings

CHEM 1405 Life Science Chemistry	..... (3cr)
CHEM 1406 Life Science Chemistry Lab	..... (1cr)
CHEM 1407 Life Science Chemistry	..... (4cr)
CHEM 1410 Environmental Chemistry	..... (3cr)
CHEM 1414 Fundamentals of Chemistry	..... (4cr)
CHEM 1414 Fundamentals of Chemistry	..... (4cr)
CHEM 1424 Chemical Principles I	..... (5cr)
CHEM 1424 Chemical Principles I	..... (5cr)
CHEM 1425 Chemical Principles II	..... (5cr)
CHEM 2472 Organic Chemistry I	..... (5cr)
CHEM 2473 Organic Chemistry II	..... (5cr)

COLLEGE & CAREER STUDIES



Department Description

The College & Career Studies Department courses are designed to assist students in learning college and career success strategies and life management skills. These courses focus on development of the whole person and help students identify personal, educational, and career goals as well as make satisfying decisions for transition to the workforce as productive members of society. The learning and self-management skills developed in college and career courses can serve a lifetime. These courses do not lead to a major but are designed to provide students with the skills necessary for achieving personal, academic, and career success.

Department Learning Outcomes

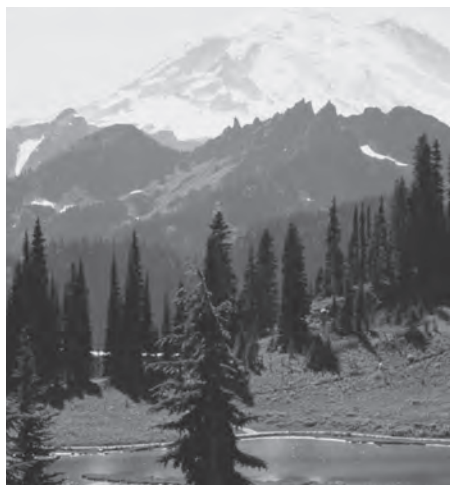
Students will be able to:

- Demonstrate an understanding of self through exploration of interests, personal values and personality traits.
- Develop and apply a repertoire of study skill strategies to optimize their academic success.
- Develop and apply job-search strategies that will lead to more effective marketing of their occupational skills.
- Develop and articulate a personal definition of a “successful life.”

Department Course Offerings

CCST 1300 Transition to College for Students with Special Needs	(2cr)
CCST 1510 College Success Skills	(3cr)
CCST 1512 Combat to Classroom	(2cr)
CCST 1514 Information Literacy & Research	(1cr)
CCST 1520 Career Planning	(2cr)
CCST 1530 Employment Strategies	(3cr)
CCST 1541 Student Senate I	(1cr)
CCST 1542 Student Senate II	(1cr)
CCST 1550 On Course: Introduction to College . . .	(1cr)
CCST 1552 On Course: Success Strategies for Athletes	(1cr)
CCST 1554 On Course: Strategies for Re-Entry Students	(2cr)
CCST 1558 Introduction to E-Learning	(1cr)
CCST 1559 Money Management Skills	(1cr)
CCST 1560 Math without Fear	(2cr)
CCST 1570 Thinking, Learning & Communicating	(3cr)
CCST 1590 Service Learning and Civic Engagement	(1cr)
CCST 1598 Topics in CCST	(1-6cr)
CCST 2512 Leadership Development	(3cr)
CCST 2514 Honors Service Learning Experience	(1cr)

EARTH SCIENCE



Department Description

Earth science encompasses a broad range of interdisciplinary fields built on a foundation of physical sciences and mathematics. The transfer majors suggested in this section are designed to effectively prepare you for transfer to a four-year university major in one of the many sub-disciplines of earth science.

Geology, Oceanography, Atmospheric Science, and Environmental Science all belong to the Earth Science discipline. Earth science classes at CLC offer you a variety of experiences for learning about Earth and the environment, including traditional classroom courses, on-line coursework, laboratory work and field trips. If you are considering earth science as a major you are encouraged to discuss your plans with one of the Earth Science faculty at CLC during your first year of study.

Department Learning Outcomes

Students will be able to:

- Comprehend complexity of interactions within and across Earth's concentric spheres: lithosphere, hydrosphere, atmosphere, biosphere, and ethnosphere.
- Show literacy in contemporary issues in

Earth Science.

- Use an informed, analytical approach to suggest solutions to contemporary issues in Earth Science from a scientific perspective.
- Generate and analyze data in Earth Science in basic laboratory and field investigations.

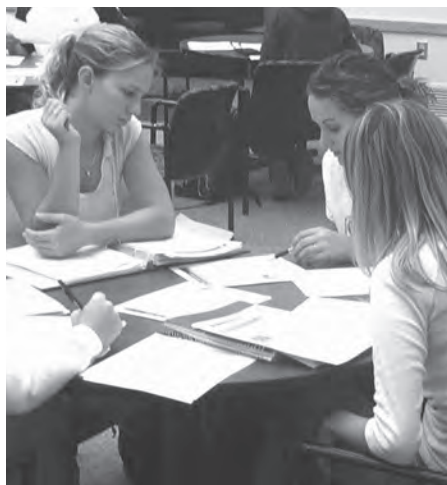
Special Program Requirements

Extensive coursework in science and math is needed to enter any university earth science major. In your first at CLC year you should make a solid beginning in math, physics, and chemistry coursework that will form the foundation of your major.

Department Course Offerings

ESCI 1400 Geology of National Parks	.....	(3cr)
ESCI 1405 Astronomy	.....	(4cr)
ESCI 1411 Physical Geology	.....	(4cr)
ESCI 1421 Minnesota Geology	.....	(3cr)
ESCI 1430 Adapting to a Changing Planet-Sustainability Lessons from Denmark	.....	(3cr)
ESCI 1431 Honors Adapting to a Changing Planet-w Lessons from Denmark	.....	(3cr)
ESCI 1444 Natural Disasters	.....	(3cr)
ESCI 1451 Oceanography	.....	(3cr)
ESCI 1452 Oceanography Lab	.....	(1cr)
ESCI 1454 Earth Science and the Environment	...	(4cr)
ESCI 1455 Honors Earth Science and the Environment	.....	(4cr)
ESCI 1457 Honors Oceanography	.....	(3cr)
ESCI 2581 Topics in Earth Science	.....	(1-6cr)

ECONOMICS



Department Description

A wise sage once 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.

Department Learning Outcomes

Students will be able to:

- Identify and apply alternative explanatory systems or theories.
- Identify and communicate alternative explanations for contemporary social issues.
- Identify the methods and data that historians and social and behavioral sciences use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods or cultures

Special Program Requirements

Courses in economics involve reading, writing, and analyzing information and data. College level skills in these areas are important.

Transfer Opportunities

Economics courses offered at Central Lakes College fulfill requirements within the Minnesota Transfer Curriculum, Central Lakes College's graduation requirements, and readily transfer to four-year institutions.

Department Course Offerings

ECON 1450 American Economy (3cr)

ECON 2401 Principles of

Economics-Macroeconomics (3cr)

ECON 2402 Principles of

Economics-Microeconomics (3cr)

ENGLISH

Department Description

The study of English means discovering the dynamic process of writing and the influential impact of literature on human thought. The English Department offers a variety of writing and literature courses that create opportunities for students to apply creative and analytical insight to various rhetorical situations. Faculty members guide writers and readers from the initial stages of discovery to the final steps of drafting cohesive, logical, and intelligent texts. A strong background in writing and literature assures that students possess skills necessary to succeed personally, academically, and professionally today and in the future.

Department Learning Outcomes

Students will be able to:

- Choose, develop, and support a thesis, producing a unified and coherent oral or written text that demonstrates awareness of purpose and audience and uses standard edited English.
- Utilize research tools, use correct and appropriate documentation format, and properly cite credible sources.
- Demonstrate understanding of the implications of cultural and historical contexts in literature.

Special Department Information

Students are strongly advised to take English 1410 in the first semester and English 1411 in the second semester, as instruction in expository and research writing will promote success in other classes.

Career Titles

Advertising Copywriter
 Computer Instructional Designer
 Copy Editor or Editorial Assistant
 Corporate Communications Specialist
 Freelance Writer
 Publications Researcher

Radio/Television Copywriter
 Journalist
 Technical Writer
 Secondary School Teacher
 Professor

Department Course Offerings

ENGL 1410 Composition I	(4cr)
ENGL 1411 Composition II	(4cr)
ENGL 1421 Honors Composition II:	
Public and Professional Writing	(4cr)
ENGL 1422 Practical Writing	(3cr)
ENGL 1450 Introduction to Humanities	(3cr)
ENGL 1452 Classical Mythology	(3cr)
ENGL 1454 Film Appreciation	(3cr)
ENGL 1463 Introduction to Literature	(3cr)
ENGL 1468 Poetry	(3cr)
ENGL 1469 American Short Story	(3cr)
ENGL 1477 Authors in Focus	(1|2|3cr)
ENGL 1478 Authors in Focus	(1|2|3cr)
ENGL 1501 Writing Fundamentals	
for Healthcare Professionals	(1cr)
ENGL 1510 English for Academic Purposes	(3cr)
ENGL 1512 English for Academic Purposes II	(3cr)
ENGL 1520 Language Fundamentals	(1cr)
ENGL 1521 Technical Writing Fundamentals	(1cr)
ENGL 1522 Writing Fundamentals for Diesel	
& Heavy Equipment Technicians	(1cr)
ENGL 1580 Topics in Humanities	(1-6cr)
ENGL 1581 Topics in English	(1-6cr)
ENGL 1590 Service Learning	(1cr)
ENGL 1596 Writing II	(3cr)
ENGL 2450 World Literature	(3cr)
ENGL 2451 Women in Literature	(3cr)
ENGL 2455 American Indian Literature	(3cr)
ENGL 2457 British Literature Pre-1800	(3cr)
ENGL 2458 British Literature 1800-Present	(3cr)
ENGL 2467 American Literature pre-1861	(3cr)
ENGL 2468 American Literature 1861-Present	(3cr)
ENGL 2470 Creative Nonfiction	(3cr)
ENGL 2483 Creative Writing	(3cr)
ENGL 2484 Advanced Creative Writing	(3cr)
ENGL1469 American Short Story	(3cr)

GEOGRAPHY



Department Description

Geography literally means “writing about the Earth”. Geography is so interesting and useful because it includes information from many other disciplines like political science, history and economics and from sciences such as geology, biology and meteorology. What connects these disciplines to geography is that they all have to happen somewhere. The power of place and the concepts of location and interaction are central to understanding geography. Places are important because they help to shape the events and the people that are associated with them. Geography brings many disciplines together to create a vivid and unique understanding of our lives on Earth.

Department Learning Outcomes

Students will be able to:

- Identify and apply alternative explanatory systems or theories.
- Identify and communicate alternative explanations for contemporary social issues.
- Identify the methods and data that historians and social and behavioral sciences use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods or cultures.

Special Department Information

A desire and interest to know more about the physical and cultural wonders of the world around you are all that you need to get started in geography.

Transfer Opportunities

The spatial understanding and the social and physical science skills acquired in geography lend themselves to your success in many majors. Knowledge of spatial relationships enhances the study of politics, history and economics as well as the study of geology, biology and meteorology. Business and marketing majors often need the skills and insights geography offers as do planners and city managers.

Career Titles

- Geographer
- Professor
- Social Studies Teacher
- Urban/City Planner
- GIS Specialist
- Marketing Specialist
- Location Analyst
- Cartographer
- Surveyor
- Travel Planner

Department Course Offerings

- GEOG 1400 Physical Geography (3cr)
- GEOG 1410 Maps and Places (3cr)
- GEOG 1421 World Regional Geography (3cr)
- GEOG 1459 Cultural Geography (3cr)
- GEOG 1460 Honors Cultural Geography (3cr)
- GEOG 1598 Topics in Geography (1-6cr)
- GEOG 1599 Topics in Geography (1-6cr)
- GEOG 2401 Economic Geography (3cr)

HEALTH



Department Description

Health courses help create and disseminate knowledge with the aim of preventing disease and promoting the health of populations in the United States and worldwide. Our courses are concerned with personal and community health promotion.

Included in our offerings are specialized training for Emergency Medical Technicians, First Responders, and those charged with basic life support. In addition, we have a course that examines the unique biology and other aspects of gender focused on wellness from a woman's perspective.

Another studies the physical, mental, emotional, social, and spiritual aspects of one's health as relates to sexuality. Today's culture faces challenges to societal health, as well as that of the individual. Drug Awareness is therefore considered by many to be an essential three-credit course.

Department

Learning Outcomes

Students will be able to:

- Understand and apply the basic principals related to health and wellness with a goal of promoting both individual health/wellness and that of the greater society as well.
- Recognize and define healthy behaviors as they exist in the areas of physical, mental, emotional, and social health as well as the spiritual aspects of one's health as it relates to sexuality.

Special Department Information

Students who wish to enroll in the Emergency Medical technician course must first have CPR certification.

Career Titles

Dietitian
 Emergency Medical Technician (Basic, Intermediate and Paramedic)
 Health Educator
 Health Unit Coordinator
 Health Science Librarian
 Medical Illustrator (Photographer, Writer)
 Health Information Administrator
 Certified Athletic Trainer
 Recreational Therapist
 Physical Therapist
 Rehabilitation Counselor

Department Course Offerings

HLTH 1501 Personal Health and Wellness	(3cr)
HLTH 1507 Drug Awareness	(3cr)
HLTH 1510 Intro to Massage	(2cr)
HLTH 1531 Women's Health	(3cr)
HLTH 1541 Human Sexuality	(3cr)
HLTH 2550 Internship in Health	(1-4cr)
HLTH 2570 Topics in Health	(1-6cr)

HISTORY

Department Description

Our goal is to promote the understanding of the historical past. Studying history gives individuals the skills and perspective needed to think about and understand the complex world in which we live. Courses in history will ask and answer questions about why and how the world's people, institutions, ideas, economies and cultures developed and changed over time. History students will read current scholarship, engage in discussions, view films and documentaries, and research topics of interest.

Department Learning Outcomes

Students will be able to:

- Identify and apply alternative explanatory systems or theories.
- Identify and communicate alternative explanations for contemporary social issues.
- Identify the methods and data that historians and social and behavioral sciences use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods or cultures.

Special Department Information

College-level reading and writing skills will help students be more successful in all history courses.

Transfer Opportunities

History courses fulfill a number of requirements for the Minnesota Transfer Curriculum, as well as Central Lakes College graduation requirements. Students who plan on majoring in History at a four year institution would be well-advised to take both the US and World History survey courses. This will be good preparation for upper division work in whatever area of history you might choose to make your area of concentration.

Career Titles

Educator
 Researcher/Writer
 Archivist
 Records Manager
 Information Manager
 Legislative Staff
 Foundation Staff
 Editing and Publishing
 Lawyers and Paralegal
 Museum Curator

Department Course Offerings

HIST 1406 Western Civilization, Pre-history to 1500	(3cr)
HIST 1407 Western Civilization, 1500 to Present	(3cr)
HIST 1412 World History I, From the Beginning to 1500	(3cr)
HIST 1413 World History II, 1500 to the Present ..	(3cr)
HIST 1472 United States History to 1865	(3cr)
HIST 1473 U.S. History Since 1865	(3cr)
HIST 1475 Honors: U.S. History 1865 to Present ..	(3cr)
HIST 2404 Minnesota History	(3cr)
HIST 2406 Ojibwe History	(3cr)
HIST 2411 American Indian History	(3cr)
HIST 2420 History of Women in the U.S.	(3cr)
HIST 2570 Topics in History	(1-6cr)

MATHEMATICS



Department Description

Mathematics is an essential tool for understanding other disciplines and the world around us. Courses in mathematics will help students develop logical reasoning and problem solving skills, forming a basis for success in their careers and future study. The mathematics department offers pre-college mathematics courses to prepare students for college level courses as well as the necessary courses to complete the mathematics requirement for a four year degree.

Department Learning Outcomes

Students will be able to:

- Demonstrate sequential reasoning.
- Communicate mathematically.
- Exhibit proficiency in using technology.

Special Program Requirements:

Students should consult with a counselor to determine their specific degree or program requirements in mathematics.

Transfer Opportunities

The suggested curriculum for students interested in obtaining a four-year degree in mathematics or mathematics education is the following:

- MATH 1477 Calculus I
- MATH 2459 Differential Equations
- MATH 1478 Calculus II
- MATH 2457 Linear Algebra
- MATH 2458 Multivariable Calculus

Department Course Offerings

MATH 0800 Fundamentals of Math.	(3cr)
MATH 0810 Math Pathways.	(3cr)
MATH 0820 Intermediate Algebra.	(4cr)
MATH 1441 Concepts in Mathematics.	(3cr)
MATH 1460 Introduction to Statistics.	(4cr)
MATH 1461 Honors Introduction to Statistics.	(4cr)
MATH 1470 College Algebra.	(3cr)
MATH 1472 Precalculus.	(5cr)
MATH 1477 Calculus I.	(5cr)
MATH 1478 Calculus II.	(5cr)
MATH 1500 Applied Mathematics.	(3cr)
MATH 1510 Math for Elementary Teachers I.	(3cr)
MATH 1512 Math for Elementary Teachers II.	(3cr)
MATH 1520 Introduction to College Algebra.	(3cr)
MATH 1580 Topics in Math.	(1-6cr)
MATH 2457 Linear Algebra.	(3cr)
MATH 2458 Multivariable Calculus.	(4cr)
MATH 2459 Differential Equations.	(4cr)

MUSIC



Department Description

Students may take basic musicianship classes in voice, piano, brass, woodwinds and guitar as well as basic music theory, appreciation, jazz and pop music history and world music. Vocal and instrumental performing groups such as Concert Choir, Chamber Singers, Jazz Band, Concert Band and Brass Ensemble afford students the opportunity to maintain and develop musical skills. The instrumental groups are also open to public participation offering musicians of all ages a chance to keep up the skills.

Department Learning Outcomes

Students will be able to:

- Demonstrate knowledge of specific areas of music.
- Demonstrate proficiency in preparing and performing musical works (performing groups).
- Demonstrate proficiencies in applied music (instrumental, vocal, guitar, piano, audio recording).

Special Department Information

Performing groups require a basic level of musical knowledge and a desire to raise that level.

Transfer Opportunities

Applied music classes in voice, piano, brass, woodwinds, and the performing group credits transfer as music classes and will apply toward the requirements of a music majors at most 4-year institutions.

Career Titles

- Music Teacher
- Church Choir Director
- Church Organist
- Performing Musician
- Recording Engineer
- Radio Broadcaster
- Music Retail Worker
- Worship Band Leader/Musician

Department Course Offerings

MUSC 1403 American Popular Music	(3cr)
MUSC 1405 Jazz Band	(1cr)
MUSC 1408 Community Band	(1cr)
MUSC 1415 Brass Ensemble	(1cr)
MUSC 1418 Woodwind Ensemble	(1cr)
MUSC 1421 Cantare' Concert Chorale	(1cr)
MUSC 1431 Chamber Singers	(1cr)
MUSC 1441 Applied Music - Guitar	(1cr)
MUSC 1450 Music in World Cultures	(3cr)
MUSC 1452 Intro to Music Industry	(3cr)
MUSC 1453 Audio Recording I	(3cr)
MUSC 1455 Voice Training	(2cr)
MUSC 1457 Music Appreciation	(3cr)
MUSC 1459 Fundamentals of Music	(3cr)
MUSC 1464 Applied Music - Brass	(1cr)
MUSC 1475 Applied Music - Woodwind	(1cr)
MUSC 1481 Applied Music - Piano	(1cr)
MUSC 1485 Applied Music - Instrumental	(1cr)
MUSC 1491 Applied Music - Voice	(1cr)
MUSC 2401 Evolution of Jazz	(3cr)
MUSC 2580 Topics in Music	(1-3cr)

PHILOSOPHY



Department Description

Courses in Philosophy cover life's fundamental questions, such as what do we know, and how do we know it? What is the source and function of moral behavior? What is the nature of logic and correct reasoning? Students of Philosophy learn how history's most profound thinkers have attempted to answer these questions; students also learn the thinking and reasoning skills that will allow them to answer these questions for themselves.

Special Department Information

Because courses in Philosophy often require students to express themselves in writing, it is suggested that students complete ENGL 1410 Composition I prior to taking a Philosophy course.

Department Learning Outcomes

Students will be able to:

- Demonstrate an ability to recognize and critically evaluate issues that arise when people think about the nature of truth, life, the universe, morality, mind, God, and other issues of philosophical interest.
- Become more aware and reflective individuals capable of independently assessing

commonly held clichéd social assumptions and articulating informed and well-reasoned evaluations.

- Become self motivated thinkers possessing the ability to rationally determine their beliefs and values for themselves.

Transfer Opportunities

The analytical skills honed in Philosophy courses enhance a student's chance for success in any major. Students looking beyond a major, or considering a future specialization in philosophy, should know that Philosophy majors consistently register higher LSAT, GRE, and GMAT scores than students from other disciplines. The University of Virginia Law School found that Philosophy majors averaged 15 points higher on the Law School entrance exam than students from other majors. Courses in Philosophy greatly benefit anyone interested in law school, seminary, medicine, journalism, or attaining any graduate degree.

Career Titles

Lawyer , Journalist, Professor

Department Course Offerings

PHIL 1417 Immortality and the Afterlife	(3cr)
PHIL 1411 World Religions	(3cr)
PHIL 1415 Philosophy and Popular Culture	(3cr)
PHIL 1417 Immortality and the Afterlife	(3cr)
PHIL 1421 Critical Thinking	(3cr)
PHIL 1460 Logic	(3cr)
PHIL 2410 Introduction to Philosophy	(3cr)
PHIL 2420 Ethics	(3cr)
PHIL 2421 Honors Ethics	(3cr)
PHIL 2430 Contemporary Moral Problems	(3cr)

PHYSICAL EDUCATION

Department Description

Today's students will represent the first generation ever to have a lifespan shorter than that of their parents, unless current diet and exercise habits change. So says the President's Council on Physical Fitness and Sports. Courses in Physical Education provide co-educational opportunities to advance one's fitness as well as acquire knowledge and skills associated with athletics, athleticism, and team sports. The schedule endeavors to afford students season-oriented activities that are able to make use of facilities and outdoor environments, from weight rooms and dance floors to our area's magnificent golf courses and cross-country ski trails. Varsity sports, which earn the participant one credit per season, provide intercollegiate athletic competition as a higher education platform to further one's competitive abilities and, in some cases, pursuit of professional athletic status.

Department Learning Outcomes

Students will be able to:

- Demonstrate understanding of how to improve their own level of fitness.
- Demonstrate understanding of the health benefits of exercise.
- Demonstrate skills related to the practice of a sport/activity.

Special Department Information

Entrance to any of the college's intercollegiate athletics programs requires passage of a physical examination.

Career Titles

Personal Trainer
 Corporate Fitness Instructor
 Activities Director
 Nutrition Specialist
 Cardiovascular Fitness Instructor
 Cruise Recreation Director
 Health/Fitness Consultant
 Occupation Exercise Scientist

Camp Director

Professional Sports Umpire

Professional Sports Scout

Spa/Health Club Manager

Department Course Offerings

PHED 1502 Circuit Training	(2cr)
PHED 1503 Advanced Circuit Training	(1cr)
PHED 1505 Fitness Walking	(2cr)
PHED 1506 Aerobic Exercise	(2cr)
PHED 1507 Basic Horsemanship	(2cr)
PHED 1508 Bicycling	(2cr)
PHED 1510 Beginning Skiing/Snowboarding	(2cr)
PHED 1511 Advanced Skiing/Snowboarding	(2cr)
PHED 1512 Beginning Yoga	(2cr)
PHED 1513 Aerobic Conditioning	(2cr)
PHED 1514 Cardio Sampler	(2cr)
PHED 1516 Yoga For Stress Relief	(2cr)
PHED 1520 Vinyasa (Flow) Yoga	(2cr)
PHED 1521 Body Conditioning	(2cr)
PHED 1522 Weight Training	(2cr)
PHED 1523 Strength Training for Women	(2cr)
PHED 1524 Recreational Sampler	(2cr)
PHED 1525 Personal Protection Awareness	(2cr)
PHED 1530 Beginning Swimming	(1cr)
PHED 1531 Intermediate & Advanced Swimming	(1cr)
PHED 1534 Beginning Golf	(2cr)
PHED 1536 Advanced Golf	(2cr)
PHED 1541 Bowling	(2cr)
PHED 1544 Basketball - Coed	(1cr)
PHED 1553 Power Volleyball	(2cr)
PHED 1570 Theory of Coaching	(2cr)
PHED 1572 Theory of Basketball	(2cr)
PHED 1573 Officiating	(1cr)
PHED 1583 Athletic Training	(2cr)
PHED 1594 Fitness for Life	(2cr)
PHED 1599 Topics in Physical Education	(1-6cr)
PHED 2501 Varsity Sports - Football	(1cr)
PHED 2502 Varsity Sports - Volleyball	(1cr)
PHED 2503 Varsity Sports - Men's Basketball	(1cr)
PHED 2504 Varsity Sports - Women's Basketball	(1cr)
PHED 2505 Varsity Sports - Baseball	(1cr)
PHED 2506 Varsity Sports - Softball	(1cr)
PHED 2507 Varsity Sports - Golf	(1cr)
PHED 2511 Varsity Sports - Football II	(1cr)
PHED 2512 Varsity Sports - Volleyball II	(1cr)
PHED 2513 Varsity Sports - Men's Basketball II	(1cr)
PHED 2514 Varsity Sports - Women's Basketball II	(1cr)
PHED 2515 Varsity Sports - Baseball II	(1cr)
PHED 2516 Varsity Sports - Softball II	(1cr)
PHED 2517 Varsity Sports - Golf II	(1cr)

PHYSICS



Department Description

Courses in Physics cover the physical laws that govern the natural world in which we live, from the smallest particles that make up matter to the structure of the universe. All physics courses include a laboratory component that is designed to reinforce theoretical concepts with hands-on experiences and physical measurements. All physics courses use computer-based data acquisition and simulations to help students visualize and understand abstract concepts.

Department Learning Outcomes

Students will be able to:

- Accurately use mathematical functions that apply to physics.
- Use graphing technologies to help explain physical phenomena and discuss them orally or in writing.
- Correctly use unit analysis to solve problems collaboratively.

Special Department Information

College Physics is designed for students in a pre-professional track such as pre-pharmacy, architecture, pre-medicine, and pre-veterinary and requires a math competency at the level of Precalculus (Math 1472). Engineering Physics is designed for students majoring in physics, engineering, or students wanting a challenge consistent with their mathematical skill level and requires a math competency at the level of Calculus (Math 1477).

Transfer Opportunities

All Minnesota and area universities offer Bachelor's and advanced degrees in physics. Physics is also required for anyone interested in engineering, medical technology, medicine, pharmacy, and veterinary fields. Because of their need for strong math skills, physicists often have dual degrees in Physics and Mathematics.

Career Titles

Physicist
Professor
Researcher
Scientific Analyst

Department Course Offerings

PHYS 1401 College Physics I	(4cr)
PHYS 1402 College Physics II	(4cr)
PHYS 1411 Classical Physics I	(5cr)
PHYS 1412 Classical Physics II	(5cr)
PHYS 1425 Honors Astronomy/Physics	(4cr)
PHYS 1430 Concepts of Physics:	
A Universe of Hidden Charm	(3cr)

POLITICAL SCIENCE



Department Description

Are you interested in American politics; international affairs; critical issues such as health, the environment, and civil rights; theories concerning the ideal government and how power and resources are allocated in society? If so, you should consider studying political science. Politics affects the air we breathe, the way we're educated, the jobs we do, the communities we live in and the taxes we pay. By studying Political Science, you'll learn the principles at work behind the decisions that affect every aspect of our lives. Political science students study the systems people set up to organize their societies, from neighborhoods to nations.

Department Learning Outcomes

Students will be able to:

- Identify and apply alternative explanatory systems or theories.
- Identify and communicate alternative explanations for contemporary social issues.
- Identify the methods and data that historians and social and behavioral sciences use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods or cultures.

Special Department Information

Courses in Political Science require students to read and understand written material, and to express themselves in writing and class discussion. Therefore it is suggested that students have college level study and communication skills.

Transfer Opportunities

The analytical, critical thinking, and communications skills honed in Political Science courses enhance a student's chance for success in any major. Most 4-year colleges and universities have degree programs in Political Science, and it is the most frequent undergraduate major for law students.

Department Course Offerings

POLS 1430 Introduction to Political Science	(3cr)
POLS 1435 American Government and Politics . . .	(3cr)
POLS 1439 State and Local Government	(3cr)
POLS 1440 Society and Law	(3cr)
POLS 2401 Federal Indian Policy	(3cr)
POLS 2402 Tribal Government	(3cr)
POLS 2450 International Relations	(3cr)
POLS 2581 Topics in Political Science I	(1-6cr)

PSYCHOLOGY

Department 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. We use 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. We study what makes people thrive and grow, as well as what might lead to problems.

The Psychology Department faculty has a wealth of experience in the teaching of psychology as well as practical experience working in the field, and they use this to enrich the classroom. Faculty members also maintain memberships in professional psychology organizations to stay up to date with research findings and developments in the field. The Psychology Club is a student organization that takes on service projects on campus and in the community, and holds regular social events. Central Lakes College also has a chapter of Psi Beta, the national honor society for psychology students at two-year colleges.

Department Learning Outcomes

Students will be able to:

- Identify and apply alternative explanatory systems or theories.
- Identify and communicate alternative explanations for contemporary social issues.
- Identify the methods and data that historians and social and behavioral sciences use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods or cultures.

Special Department Information

General Psychology is a survey course that provides a broad introduction to the field of psychology. This course is also a prerequisite for some of the other psychology courses, such as Human Development and Abnormal Psychology.

Transfer Opportunities

Psychology courses fulfill several goal areas of the Minnesota Transfer Curriculum. Many students at CLC take courses in psychology, as the study of psychology is an excellent preparation for further study in numerous fields such as teaching, health care, social service, criminal justice and business.

Career Titles

Psychologist
 Counselor
 Behavior Analyst
 Case Worker
 Human Resources Director
 Social Services Director
 Customer Relations Worker
 Research Analyst
 Probation Officer
 Manager

Department Course Offerings

PSYC 1411 Personal Growth & Behavior	(3cr)
PSYC 1420 Psychology & Modern Life	(3cr)
PSYC 1423 Positive Psychology:	
The Science of Well-Being	(3cr)
PSYC 2421 General Psychology	(4cr)
PSYC 2423 Honors General Psychology	(4cr)
PSYC 2425 Conflict, Trauma, and	
Post Traumatic Stress Disorder	(3cr)
PSYC 2431 Human Development	(3cr)
PSYC 2435 Educational Psychology	(3cr)
PSYC 2470 Abnormal Psychology	(3cr)
PSYC 2570 Topics in Psychology	(1-6cr)

READING



Department Description

The Reading Department at Central Lakes College offers a variety of classes in reading comprehension improvement, critical reading and thinking, vocabulary building, and study methods. It provides a range of class levels based on academic need, and the classes are designed to help students succeed personally, academically, and professionally.

Department Learning Outcomes

Students will be able to:

- Select reading strategies appropriate to the purpose and text structure.
- Independently read and respond to text in critical, creative, and emotional ways.
- Understand and identify the general sense/main idea of a paragraph or passage, supporting details, and author's patterns.
- Develop effective vocabulary-building techniques for reading fluency.

Special Department Information

To guide our students to be independent readers and thinkers, the Reading Department uses a variety of instructional activities including individual, collaborative, and whole class learning. At Central Lakes college, we recognize the various reading experiences and skill levels our students have. Therefore, we attempt to provide an atmosphere that fosters encouragement and acceptance of different ideas and opinions for optimum success.

Department Course Offerings

READ 0591 Reading I	(5cr)
READ 0592 Reading II	(3cr)
READ 1401 College Reading	(3cr)
READ 1598 Topics in Reading	(1-6cr)

SOCIOLOGY



Department Description

Sociologists address the most pressing issues of our time: the gap between rich and poor, the breakup of families, crime, warfare, human migration and environmental challenges. Our scientific study of the groups and culture that we belong to is actually a study of ourselves... but from the outside-in! Sociological research often becomes social policy as local, state and federal governments seek to better organize their piece of our social world.

Department Learning Outcomes

Students will be able to:

- Identify and apply alternative Explanatory systems or theories.
- Identify and Communicate alternative explanations for contemporary social issues.
- Identify the methods and data that historians and social and behavioral sciences use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods or cultures.

Special Department Information

Although no prerequisites exist for sociology classes at CLC, students are strongly encouraged to begin their adventure in sociology in an Introduction to Sociology course. This is the perfect jumping-off point to the higher-level sociology courses. A class or two in English Composition is also very helpful.

Transfer Opportunities

The understanding of humanity gained in sociology adds a unique insight to almost any field of study or occupation. In fact, sociology offerings are often required for degrees in several major disciplines. CLC sociology majors have a great reputation at our region's 4 year colleges like St. Cloud State University and Bemidji State University where our students have won high honors.

Career Titles

College Professor, Teacher, City/State Planner, Demographer, Personnel Manager, Probation Officer, Police Chief, Social Worker, Advocate

Department Course Offerings

SOCL 1401 Introduction to Sociology	(3cr)
SOCL 1403 Honors Introduction to Sociology	(3cr)
SOCL 1472 Sociology of the Family	(3cr)
SOCL 2405 Criminology	(3cr)
SOCL 2411 Social Problems	(3cr)
SOCL 2422 Culture & Environment	(3cr)
SOCL 2480 Sociology of Death and Dying	(3cr)
SOCL 2481 Race, Ethnicity & Oppression	(3cr)
SOCL 2599 Topics in Sociology	(1-6cr)

SPANISH



Department Description

Learning a second language has become a key educational component for career and personal enhancement in the global economy. Regardless of the major that you choose, adding Spanish will enhance your job opportunities and add to your scope of intercultural understanding as our country evolves demographically and linguistically. The CLC Spanish Department offers beginning and intermediate level language classes. Students are encouraged to meet with instructors or inquire about the CLEP test if uncertain about entry level of study.

Department Learning Outcomes

Students will be able to:

- Demonstrate appropriate class level oral or expressive World Language skills.
- Demonstrate knowledge and appreciation of cultural values, norms and traditions per specific World 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 World Language skills.
- Demonstrate appropriate cultural rules of interaction when conversing in the target language.

Special Department Information

Students may elect to complete a certificate in Latin American Studies that will enrich their understanding and appreciation of Latin American culture, communication, language, music, and art. This program is appropriate for citizens 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 enhances their abilities in the workplace. Students will have an opportunity to 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.

Department Course Offerings

SPAN 1401 Beginning Spanish I	(4cr)
SPAN 1402 Beginning Spanish II	(4cr)
SPAN 1597 Topics in Spanish.....	(1-6cr)
SPAN 1598 Topics in Spanish.....	(1-6cr)
SPAN 2401 Intermediate Spanish I	(4cr)
SPAN 2404 Intermediate Spanish II	(4cr)
SPAN 2420 Many Faces of Mexico	(3cr)
SPAN 2425 Cultures of Latin America	(3cr)

SPEECH



Department Description

The expectation of a college education is the skill to communicate effectively. Speech courses form a foundation necessary to reach this goal. The ability to understand the human communication process, through knowledge of its theories and application of these theories, prepares a student in his or her individual quest for success. The Speech Department at Central Lakes College offers interesting and challenging classes in public speaking, interpersonal communication, intercultural communication, small group communication, and other additional speech courses. This coursework provides a framework that will benefit students in the pursuit of their present and future goals.

Department Learning Outcomes

Students will be able to:

- Demonstrate oral communication skills.
- Demonstrate an understanding of intercultural communication and effectively communicate within and across different contexts and cultures.
- Demonstrate an understanding of the manner in which communication creates, maintains, and transforms relationships, and engage in effective and productive relational communication.

Transfer Opportunities

Speech courses fulfill a number of requirements for the Minnesota Transfer Curriculum, Central Lakes College graduation requirements, and readily transfer to four-year institutions.

Career Titles

Public Speaker
 Speaking Coach
 Script and Speech Writer
 Speech Therapist
 Communication Consultant
 Public Relations Director
 Broadcaster
 Media Manager
 Teacher
 Administrator
 Counselor

Department Course Offerings

SPCH 1410 Introduction to Communication Studies	(3cr)
SPCH 1421 Interpersonal Communication	(3cr)
SPCH 1431 Fundamentals of Public Speaking	(3cr)
SPCH 1450 Introduction to Mass Communication	(3cr)
SPCH 1451 Argumentation and Debate	(3cr)
SPCH 1464 Creative Communication	(3cr)
SPCH 1470 Blogging and Vlogging	(3cr)
SPCH 1472 Online Social Networking	(3cr)
SPCH 2421 Intercultural Communication	(3cr)
SPCH 2431 Small Group Communication	(3cr)
SPCH 2570 Topics in Speech.....	(1-6cr)
SPCH 2590 Serving Learning	(1-3cr)

THEATRE

Department Description

Onstage or backstage, students in the CLC Theatre Department have the opportunity to be heavily involved from their first day on campus. There are numerous classes in: performance (acting, directing, children's theatre, creative dramatics, improvisation) technical theatre and theatre studies (introduction to theatre, stage to screen, theatre history). Students have the opportunity to travel in-state or to New York or to London with travel study courses in The Theatre Experience. What's learned in the classroom is taken directly to the stage with CLC Theatre's production program. The theatre serves as a cultural hub for the Brainerd Lakes area, and enjoys a 40+ year tradition of providing year-round theatre entertainment.

Department Learning Outcomes

Students will be able to:

- Demonstrate an understanding of the basic concepts of performance, not limited to these skills: proper stage terminology, basic movement, basic vocal production, and basic script analysis.
- Make thoughtful performance choices that reflect artistic, practical, and creative considerations.
- Demonstrate a basic understanding of the evolution of theatre from ancient Greek through contemporary times.
- Demonstrate a basic knowledge of the major historic and contemporary forms of dramatic literature, including representative playwrights and plays.
- Demonstrate a basic understanding of critical standards to be applied to the various elements of theatrical production.

Special Department Information

Students may wish to complete the Theatre AFA Degree.

Department Course Offerings

THTR 1430 You Tube is a Stage- Lights, Curtain, Action	(3cr)
THTR 1432 Storytelling--Tell Old Ones, Write New Ones	(3cr)
THTR 1441 Oral Interpretation of Literature . . .	(3cr)
THTR 1442 Improvisation	(3cr)
THTR 1443 Stage to Screen: Plays that Become Movies	(3cr)
THTR 1451 Introduction to Theatre	(3cr)
THTR 1452 Stage Make-up	(3cr)
THTR 1453 Theatre Costuming	(3cr)
THTR 1455 Script Analysis	(3cr)
THTR 1461 Acting I	(3cr)
THTR 1462 Acting II	(3cr)
THTR 1466 Acting Lab I	(1cr)
THTR 1467 Acting Lab II	(1cr)
THTR 1471 Theatre Production Lab I	(1cr)
THTR 1472 Theatre Production Lab II	(1cr)
THTR 1478 Technical Theatre	(3cr)
THTR 1480 The Theatre Experience	(1-3cr)
THTR 1481 The Theatre Experience- New York	(1-3cr)
THTR 1482 The Theatre Experience- London	(1-3cr)
THTR 1483 The Theatre Experience- Honors Program	(3cr)
THTR 1496 Summer Theatre Workshop	(3cr)
THTR 1597 Topics in Humanistic Theatre. . . .	(1-6cr)
THTR 1598 Topics in Humanistic Theatre. . . .	(1-6cr)
THTR 2410 Children's Theatre	(3cr)
THTR 2441 Directing for the Theatre	(3cr)
THTR 2443 Creative Drama with Children	(3cr)
THTR 2450 Theatre History	(3cr)
THTR 2466 Acting Lab III	(1cr)
THTR 2467 Acting Lab IV	(1cr)
THTR 2471 Theatre Production Lab III	(1cr)
THTR 2472 Theatre Production Lab IV	(1cr)
THTR 2480 Theatre for a Diverse Population . .	(3cr)
THTR 2491 Theatre Independent Study	(1-6cr)

Visit the College



See for yourself.

Schedule a campus tour!

We encourage prospective students, their parents and friends to explore our two campuses located in Staples and Brainerd.

Sessions can include a guided tour, meet and greet with instructors or athletic coaches, presentation of our admissions process, and meet with an advisor.

Schedule Tour Online
www.clcmn.edu/admissions

Call us
(218) 855-8031



CAREER AND TECHNICAL PROGRAMS

ASSOCIATE IN SCIENCE DEGREE
ASSOCIATE IN APPLIED SCIENCE DEGREE
DIPLOMA AND CERTIFICATE

ENOLOGY

Career Description

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 Information

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 Learning Outcomes

Graduates will be able to:

- 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. VESTA Consortium.

Career Titles

Winemaker, winemaking director, assistant winemaker, cellar master, cellar worker 2, enologist, lab technician, lab manager, tasting room manager.

ENOLOGY

Enology A.A.S. Curriculum

First Year - Fall Semester

COMP 1101	Computer Fundamentals	.....(3 cr)
BIOL 1431	General Biology I	.....(5 cr)
MATH 1506	Beginning College Algebra	.....(4 cr)
VITI 1146	Introduction to Enology	.....(3 cr)
Total 15 Credits		

Spring Semester

CHEM 1414	Fundamentals of Chemistry	.....(4 cr)
SPCH 1431	Fundamentals of Public Speaking	... (3 cr)
VITI 1148*	Winery Sanitation	.....(3 cr)
VITI 1160*	Winery Equipment Operation	.....(2 cr)
VITI 1210	Introduction to Wine Microorganisms	(3 cr)
Total 15 Credits		

Second Year - Fall Semester

BIOL 2457*	Microbiology	.....(4 cr)
ENGL 1410	Composition I	.....(4 cr)
POLS 1435	American Government and Politics	.. (3 cr)
VITI 1246*	Intermediate Enology	.....(3 cr)
Total 14 Credits		

Spring Semester

BUSN 1166	Business Communication	.....(3 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)
Total 13 Credits		

Third Year - Fall Semester

VITI 1257*	Fall Wine Production Internship	..... (3cr)
Total 3 Credits		

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

Enology Diploma Curriculum

First Year - Fall Semester

CHEM 1414	Fundamentals of Chemistry	.....(4 cr)
VITI 1146	Introduction to Enology	.....(3 cr)
VITI 1210	Introduction to Wine	
	Microorganisms	.....(3 cr)
	Elective	.....(2 cr)
Total 12 Credits		

Spring Semester

VITI 1148*	Winery Sanitation	.....(3 cr)
VITI 1160*	Winery Equipment Operation	.....(2 cr)
VITI 1246*	Intermediate Enology	.....(3 cr)
VITI 1259*	Cellar Operations Technology	.....(2 cr)
VITI 1266*	Sensory Evaluation	.....(3 cr)
VITI 1268*	Wine and Must Analysis	.....(3 cr)
Total 16 Credits		

Second Year - Fall Semester

VITI 1257*	Fall Wine Production Internship	..... (3cr)
Total 3 Credits		

GRADUATION REQUIREMENT 31 CREDITS

*Denotes Prerequisites

FARM BUSINESS MANAGEMENT

Program Information

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 Learning Outcomes

Upon program completion students will be able to:

- 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).

Special Program Requirements

The Farm Business Management Program is designed for business owners, managers, and key employees of farm and agricultural business. In addition, individuals in the process of starting a farm or agricultural business may also enroll.

Admissions

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.

Advanced Farm Business Management Certificate Curriculum

Program Course Requirements

FBMA 3100*	Fund of Financial Mgmt	
	Relates Risk Mgmt	..... (3 cr)
FBMA 3101*	Applied Financial Mgmt.	
	Relates Risk Mgmt	..... (3 cr)
FBMA 3110*	Fund Finan Mgmt/Strategic	
	Plan Emphasis	..... (3 cr)
FBMA 3111*	Applied Financial Mgmt/	
	Strategic Plan Emp	..... (3 cr)
FBMA 3120*	Fund Financial Mgmt/	
	Bus Plan Emphasis	..... (3 cr)
FBMA 3121*	Applied. Financial Mgmt/	
	Bus Plan Emphasis	..... (3 cr)
Total 18 Credits		

Electives

Student must choose additional 12 credits from the Farm Business Management Master Course Listing. Electives can be identified when the second numerical placeholder is a "3". (i.e. FBMA 3330)

Total 12 Credits

GRADUATION REQUIREMENT 30 CREDITS

FARM BUSINESS MANAGEMENT

Agricultural Commodities Marketing Certificate Curriculum

Program Course Requirements

FBMT 1170	Introduction to Farm Commodities Mktg	(3 cr)
FBMT 1173	Directed Study - Introduction to Farm Commodity Marketing	(2 cr)
FBMT 1180	Applying Commodity Mktg Fundamentals	(3 cr)
FBMT 1183	Directed Study - Applying Commodity Marketing Fundamentals	(2 cr)
FBMT 1190	Evaluating Farm Commodity Mktg Tools	(3 cr)
FBMT 1193	Directed Study - Evaluating Farm Commodity Marketing Tools	(2 cr)
FBMT 2170	Monitoring Farm Commodity Mktg 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)

Total 25 Credits

GRADUATION REQUIREMENT 25 CREDITS

Applications in Farm Business Management Certificate Curriculum

Program Course Requirements

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

Total 24 Credits

Electives

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)

Total 6 Credits

GRADUATION REQUIREMENT 30 CREDITS

Current Issues in Farm Business Management Certificate Curriculum

Program Course Requirements

FBMA 2210	Current Issues in Farm Business Management	(1-5cr)
FBMA 2220	Directed Studies - Current Issues in Farm Bus Mgmt	(1-5cr)
FBMA 2211	Current Issues in Farm Business Management	(1-5cr)
FBMA 2221	Directed Studies - Current Issues in Farm Bus Mgmt	(1-5cr)
FBMA 2212	Current Issues in Farm Business Management	(1-5cr)
FBMA 2222	Directed Studies - Current Issues in Farm Bus Mgmt	(1-5cr)

Total 18-30 Credits

Electives

Student must choose up to an additional 12 credits from the Farm Business Management Master Course Listing. Electives can be identified when the second numerical placeholder is a "2". (i.e. FBMA 2223)

Total 0-12 Credits

GRADUATION REQUIREMENT 30 CREDITS

Essentials of Farm Business Management Certificate Curriculum

Program Course Requirements

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

Total 20 Credits

Electives

Student must choose an additional 10 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)

Total 10 Credits

GRADUATION REQUIREMENT 30 CREDITS

FLORAL DESIGN

Career Description

Floral designers provide a variety of products and services to the public. Products include floral arrangements for all occasions, blooming and foliage plants, and accessory gift items. Services include the care of plants and flowers, interior decorating, and providing consultation for weddings and other special occasion. People who enjoy art, working with and serving others, as well as those who enjoy growing and working with living plants and flowers will benefit from the Floral Design Program.

Program Information

The Floral Design Program prepares students for a wide variety of challenging and profitable careers. Students will learn to design traditional and contemporary flower arrangements; work with fresh, silk, and dried flowers; and identify and care for flowering plants, foliage plants, and fresh flowers and greens.

Program Learning Outcomes

Graduates will be able to:

- 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
- Identify and prescribe sustainable options in horticulture which benefit the environment while maintaining productivity and economic viability
- Design and apply principles of design and color theory to create floral arrangements used in retail floral trade such as wedding decor, sympathy tributes, window display, permanent botanicals and event designs.
- Apply effective communication and interpersonal skills with co-workers, supervisors, suppliers and customers

Admissions

The Floral Design Program is offered as a full-time day program. Because of the sequencing of courses, it is best to begin this program Fall semester.

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.

Career Titles

This program will help students prepare for a wide range of careers, including floral designer, flower shop sales, wholesale flower sales, flower broker, flower shop owner/manager, plant rental, interior plant maintenance, free-lance designer, and floral supply representative.

Floral Design

Diploma Curriculum

Fall Semester

HORT 1104	Plant Science	.....	(4 cr)
HORT 1106	Applied Plant Science Lab	.....	(2 cr)
HORT 1108	Fundamentals of Floral Design	.....	(4 cr)
HORT 2112	Sustainable Greenhouse Production	.....	(5 cr)
	Electives	.....	(1 cr)

Total 16 Credits

Spring Semester

HORT 1110*	Advanced Floral Design	.....	(4 cr)
HORT 1118	Indoor Flowering & Foliage Plants	..	(4 cr)
HORT 2125*	Special Occasion/Wedding Design	..	(4 cr)
	Electives	.....	(4 cr)

Total 16 Credits

GRADUATION REQUIREMENT 32 CREDITS

*Denotes Prerequisites

HORTICULTURE



Career Description

An Associate of Applied Science (A.A.S.) in Horticulture is the gateway to a wide variety of careers in the huge and ever-growing horticulture industry. Depending on the emphasis chosen by the graduate, ornamental and edible plant production, greenhouse production, landscaping, floriculture and golf course maintenance are all occupations that are available to a graduate in this field.

Program Information

The A.A.S. in Horticulture covers a broad spectrum of the horticulture industry. Most students who receive their A.A.S. in Horticulture also select one (or two) of the diploma programs of interest to them. Students may select topics from landscaping, greenhouse production, and/or floral design to meet the technical elective requirement of this program.

Program Learning Outcomes

Graduate will be able to:

- 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 plants for landscape projects
- Apply effective communication and interpersonal skills with co-workers, supervisors, suppliers and customers

Admissions

The Horticulture Program is offered as a full-time day program. Because of the sequencing of courses, it is best to begin this program Fall semester. However, many students begin in the spring and successfully complete the degree.

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 can also be transferred to many other four-year colleges such as North Dakota State University. It is important to check with advisors or counselors about transferability to these or other colleges before your first semester to take full advantage of current agreements.

Career Titles

Careers available are largely dependent on your goals. It is best to discuss your goals with a counselor for proper course selection. Some common career titles in this field include landscape designer, landscape salesperson, landscape installation foreman, propagator, plant consultant, greenhouse supply representative, pest control coordinator, landscape business owner/manager, and lawn maintenance business owner/manager.

Other career areas include ornamental plant pest control, irrigation/sprinkler installation

HORTICULTURE

foreman, nursery/garden center sales, wholesale nursery sales, nursery supply sales, floral design, flower shop sales, wholesale flower sales, flower broker, interior plant rental, interior plant maintenance, and free-lance design.

Horticulture A.A.S. Curriculum

First Year - Fall Semester

- HORT 1104 Plant Science(4 cr)
- HORT 1106 Applied Plant Science Lab(2 cr)
- HORT 2112 Sustainable Greenhouse Production (5 cr)

Choose one (1) course from the following:

- HORT 1108 Fundamentals of Floral Design(4 cr)
- HORT 1110 Advanced Floral Design(4 cr)
- HORT 2125 Special Occasion/Wedding Design ..(4 cr)

Total 15 Credits

Spring Semester

- HORT 1196 Sustainable Greenhouse Management(4 cr)
- HORT 1180 Sustainable Landscaping(3 cr)
- Choose additional HORT course(3 cr)
- General Education(6 cr)

Total 16 Credits

Second Year - Fall Semester

- HORT 1113 Annuals and Perennials(4 cr)
- HORT 2140 Arboriculture(4 cr)
- HORT 2165 Landscape Design(4 cr)
- General Education(3 cr)

Total 15 Credits

Spring Semester

- HORT 1118 Indoor Flowering & Foliage Plants ..(4 cr)
- HORT 2116 Integrated Pest Management(4 cr)
- General Education(6 cr)

Total 14 Credits

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

LANDSCAPE TECHNOLOGY

Career Description

Landscape technology 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 Landscape Technology Program.

Program Information

This two-year Landscape Technology Diploma Program 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 Learning Outcomes

Graduate will be able to:

- 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
- Apply effective communication and interpersonal skills with co-workers, supervisors, suppliers and customers

Admissions

The Landscape Technology Program is offered as a full-time day program. Because of the sequencing of courses, it is best to begin this program Fall semester.

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 other colleges.

Career Titles

Some common career titles for people in this field are landscape designer, landscape salesperson, landscape installation foreman, landscape business owner/manager, lawn maintenance business owner/manager, ornamental plant pest control, irrigation/sprinkler installation, nursery/garden center sales, wholesale nursery sales and nursery supply sales.

Landscape Technology

Diploma Curriculum

First Year - Fall Semester

HORT 1104	Plant Science	.....	(4 cr)
HORT 1106	Applied Plant Science Lab	.....	(2cr)
HORT 2165	Landscape Design	.....	(4 cr)
NATR 1120	Dendrology	.....	(3 cr)
HORT 2150	Retaining Wall Construction	.....	(3 cr)
or			
HORT 2155	Deck, Patio, & Pond Construction	...	(4 cr)

Total 16 Credits

Spring Semester

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	.....	(4 cr)

Total 15 Credits

Second Year - Fall Semester

HORT 1113	Annuals and Perennials	.....	(4 cr)
HORT 2140	Arboriculture	.....	(4 cr)
		General Education	.....(4 cr)
HORT 2150	Retaining Wall Construction	.....	(3 cr)
or			
HORT 2155	Deck, Patio, & Pond Construction	...	(4 cr)

Total 16 Credits

Spring Semester

HORT 1150	Turf Management	.....	(3cr)
HORT 2116	Integrated Pest Management	.....	(4cr)
HORT 2170*	Advanced Landscape Design	.....	(4cr)
		General Education	.....(2cr)
		Elective	.....(2cr)

Total 15 Credits

GRADUATION REQUIREMENT 62 CREDITS

*Denotes Prerequisites

NATURAL RESOURCES



Career Description

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 Information

The Natural Resource Program prepares students for work in the natural resource field by providing a well-rounded background of course work and the opportunity to work with specialists in the field through internships. Credits can be transferred to a four-year college with which we have special transfer agreements, including the University of Minnesota at Crookston and the University of Wisconsin at Stevens Point.

Program Learning Outcomes

Graduates will be able to:

- 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

Special Program Requirements

This is generally an outdoor program with some physical activity, such as walking, hiking, and working in forests and streams. Most of our equipment is light, but fire training certification to fight fires requires a 3 mile walk with a 45 pound pack in 45 minutes. In order to graduate from the Natural Resources Program, students must earn a cumulative GPA of 2.0 in the credits attempted and completed towards the technical core of the degree.

Accreditation

We are part of the Minnesota State Colleges and University System and accredited by the Higher Learning Commission.

Transfer Opportunities

Students have the opportunity to transfer to colleges like University of Wisconsin at Stevens Point, WI and the University of Minnesota at Crookston, MN with this degree.

Career Titles

This program will help students prepare for a wide range of careers, including the following: forester, forestry technician, wildlife manager, wildlife technician, fisheries manager, fisheries technician, parks manager, parks technician, naturalist, hydrologist, soils scientist, non-game wildlife personnel, natural resource conservation personnel, biologist, and plant taxonomist.

NATURAL RESOURCES**Natural Resources****A.A.S. Curriculum****First Year - Fall Semester**

NATR 1112	Land Measurement	.....(3 cr)
NATR 1120	Dendrology	.....(3 cr)
NATR 1115	Plant Taxonomy	.....(2 cr)
NATR 1200	Introduction to Natural Resources	... (3 cr)
NATR 1280	Introduction to GPS & GIS (Arc View)	.....(2 cr)

Total 13 Credits**Spring Semester**

NATR 1130	Mammalogy	.....(3 cr)
NATR 1135	Ornithology	.....(3 cr)
NATR 1140	Limnology	.....(3 cr)
NATR 1125	Ichthyology	.....(3 cr)
NATR 2170	Advanced GPS & GIS	.....(2 cr)
BIOL 2416	General Ecology	.....(4 cr)

Total 18 Credits**Second Year - Fall Semester**

NATR 2120*	Wetland Ecology	.....(3 cr)
NATR 2130*	Wildlife Management	.....(3 cr)
NATR 2155	Soil Science	.....(3 cr)
General Education		.....(7 cr)

Total 16 Credits**Spring Semester**

NATR 2110	Herpetology	.....(2 cr)
NATR 2140*	Fisheries Management	.....(3 cr)
NATR 2161*	Ecosystem Management	.....(2 cr)
NATR 2201	Intro to Parks & Interpretation	.....(2 cr)
NATR 2235*	Silviculture & Forest Management	..(3 cr)
General Education		.....(4 cr)

Total 16 Credits**GRADUATION REQUIREMENT 63 CREDITS**

*Denotes Prerequisites

Wildlife Tourism**Certificate Curriculum****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	Intro to Parks & Interpretation	.....(2 cr)

Choose one (1) of the following:

SPCH 1410	Introduction to Communication Studies	.....(3 cr)
SPCH 1421	Interpersonal Communications	.....(3 cr)
SPCH 1431	Fundamentals of Public Speaking	... (3 cr)

Total 19 Credits**GRADUATION REQUIREMENT 19 CREDITS**

SPECIALTY CROPS MANAGEMENT

Career Description

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.

Program Information

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 e-mails.

Program Learning Outcomes

Graduate will be able to:

- 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.

Special Program Requirements

Every student should either own and/or operate a specialty crop farm or be actively planning to start a specialty crops farm.

Admissions

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

Specialty Crops Management Diploma Curriculum

Program Course Requirements

SCMT 1110	System Goal Setting	..... (1 cr)
SCMT 1111	Introduction to Specialty Crops	..... (2 cr)
SCMT 1112	Introduction to Financial Planning and 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 and 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 2234	Value Added Opportunities for Specialty Crops	..... (2 cr)
Total Required Courses - 33 credits		

Elective Courses

Choose 11 additional credits from SCMT-prefixed courses

Total Elective Courses - 11 credits

GRADUATION REQUIREMENT 44 CREDITS

SUSTAINABLE GREENHOUSE PRODUCTION

Career Description

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.

Program Information

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 Learning Outcomes

Graduate will be able to:

- 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 greenhouse production structures and systems
- Apply effective communication and interpersonal skills with co-workers, supervisors, suppliers and customers

Admissions

The Sustainable Greenhouse Production Program is offered as a full-time day program. Because of the sequencing of courses, it is best to begin this program Fall semester.

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.

Career Titles

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.

Sustainable Greenhouse Production

Diploma Curriculum

Fall Semester

HORT 1104	Plant Science	.....	(4 cr)
HORT 1106	Applied Plant Science Lab	.....	(2 cr)
HORT 1113	Annuals and Perennials	.....	(4 cr)
HORT 2112	Sustainable Greenhouse Production		(5 cr)
	Electives	.....	(1 cr)

Total 16 Credits

Spring Semester

HORT 1118	Indoor Flowering & Foliage Plants	..	(4 cr)
HORT 1196	Sustainable Greenhouse Management	.....	(4 cr)
HORT 2116	Integrated Pest Management	.....	(4 cr)
	Electives	.....	(4 cr)

Total 16 Credits

GRADUATION REQUIREMENT 32 CREDITS

*Denotes Prerequisites

VITICULTURE



Career Description

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 Information

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 Learning Outcomes

Graduates will be able to:

- 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

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, and Rend Lake (Ill.) Community College, and Redlands (Okla.) Community College.

Career Titles

Vineyard manager, vine nursery manager, vineyard designer, vineyard developer, pest controller, crew supervisor, equipment supervisor, research viticulturist.

VITICULTURE

Viticulture A.A.S. Curriculum

First Year - Fall Semester

BIOL 1431	General Biology I	(5 cr)
COMP 1101	Computer Fundamentals	(3 cr)
MATH 1506	Beginning College Algebra	(4 cr)
VITI 1111	Introduction to Viticulture and Vineyard Establishment	(3 cr)

Total - 15 Credits

Spring Semester

CHEM 1414	Fundamentals of Chemistry	(4 cr)
ENGL 1410	Composition I	(4 cr)
SPCH 1431	Fundamentals of Public Speaking	(3 cr)
VITI 1113*	Winter Viticulture Technology	(2 cr)
VITI 1293	Soils for Viticulture	(3 cr)

Total 16 Credits

Summer Session

VITI 1115*	Summer/Fall Viticulture Technology	(2cr)
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Total 2 Credits

Second Year - Fall Semester

BIOL 1134	General Botany	(4 cr)
MATH 1460	Intro to Statistics	(4 cr)
VITI 1190	Viticulture Safety	(1 cr)
VITI 1211	Integrated Pest Management	(2 cr)
VITI 1213*	Midwest Vineyard Management	(2 cr)

Total - 13 Credits

Spring Semester

AGR 157	Principles of Agriculture Mechanization	(3 cr)
BUSN 116	Business Communication	(3 cr)
POLS 1435	American Government and Politics	(3 cr)
VITI 1114*	Spring Viticulture Technology Elective	(2 cr) (3 cr)

Total 14 Credits

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

Viticulture Diploma Curriculum

First year - Fall Semester

BIOL 1134	General Botany	(4 cr)
VITI 1111	Introduction to Viticulture and Vineyard Establishment	(3 cr)
VITI 1211	Integrated Pest Management	(2 cr)
VITI 1293	Soils for Viticulture	(3 cr)
VITI 1190	Viticulture Safety	(1 cr)

Total 13 Credits

Spring Semester

CHEM 1414	Fundamentals of Chemistry	(4 cr)
COMP 1101	Computer Fundamentals	(3 cr)
VITI 1113*	Winter Viticulture Technology	(2 cr)
VITI 1213*	Midwest Vineyard Management	(2 cr)
VITI 1114*	Spring Viticulture Technology Elective	(2 cr) (3 cr)

Total 16 Credits

Summer Session

VITI 1115*	Summer/Fall Viticulture Technology	(2cr)
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Total 2 Credits

GRADUATION REQUIREMENT 31 CREDITS

ACCOUNTING



Career Description

Many accountants and accounting technicians work in certified public accounting firms that perform tax and auditing services but the majority work as management or “private” accountants. Many accountants have their own business as well. The role of the accounting department has expanded greatly. Accountants and accounting technicians help organizations make wise decisions by preparing and analyzing a variety of financial and non-financial information. They manage the assets of the business and ensure the records of the business comply with the law. Accounting staff are critical in the fight to cut waste and fraud, and “forensic accountants” work directly with law enforcement to keep financial systems clean. Accountants use special accounting and finance software, and in small businesses the accountant is often the computer expert.

Program Information

Central Lakes College offers a 60-credit, two-year 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 or financial management career. Students gain experience recording transactions, preparing and analyzing financial reports, and doing realis-

tic simulations on the most popular accounting computer systems. CLC also offers a one-year Accounting Diploma (32 credits) that includes most courses from the first year of the A.A.S. degree. Graduates of this program will have the background to perform entry-level accounting duties such as accounts payable, accounts receivable or payroll.

Program Learning Outcomes

Graduates will be able to:

- Prepare classified general purpose financial statements in good form
- Analyze financial and business information to support planning and decision making
- Apply accounting principles to business transactions in both a manual and a computerized environment
- Prepare federal and state individual tax forms with accompanying schedules in proper form
- Perform a Cost Volume Process (CVP) sensitivity analysis to evaluate business decisions
- Apply ethical principles in decision making
- Demonstrate effective communication skills

Special Program Requirements

In order to graduate from the Accounting Program, students must earn a cumulative GPA of 2.0 in the credits attempted and completed towards the technical core of the diploma/degree. In order to be successful in the Accounting Program, courses and learning need to be current. It is recommended that all courses used toward the degree be completed within seven years.

Certifications

Certified Bookkeeper: A Certified Bookkeeper exam is offered by the American Institute of Professional Bookkeepers. This exam covers normal accounting practices of the typical business. This exam can be taken after a 2-year Accounting Degree. **Fundamental Payroll Certification (FPC)** and **Certified**

ACCOUNTING

Payroll Professional (CPP): The FPC and CPP are two payroll certifications that 2-year degree accounting students can pursue. The FPC has no experience requirement. The CPP exam's minimum employment requirement ranges from 18 months to 3 years depending on which eligibility criteria option is chosen. Graduates achieving these certifications often gain an edge over other applicants during the hiring process and advance more quickly along their career paths. The State of Minnesota offers 2 levels of licensure for Accountants. Registered Accounting Practitioner: The (RAP) certification requires a 2-year Accounting Degree and authorizes the licensee to perform but not supervise all accounting services on a formal audit. Certified Public Accountant: The (CPA) license requires 5 years of college education (130 semester credits). CPA's are authorized to perform all accounting services and can supervise audits.

Admissions

The two-year accounting degree is offered as a full-time day program. If desired, up to 75% of the two-year degree can be obtained through a combination of online and hybrid courses.

Transfer Opportunities

All students planning to pursue a bachelor's degree in accounting are strongly encouraged to consult with the Accounting Faculty about transfer opportunities and with the Advising Department about transfer information for specific four-year colleges. The A.A.S. two-year degree in accounting is not intended for transfer. Our graduates often go directly to work.

A. A. S. Curriculum

First Year - Fall Semester

ACCT 2011	Accounting Principles I	.....	(4 cr)
ACCT 2114	Payroll Accounting	.....	(3 cr)
BUSN 1131	Business Math	.....	(3 cr)
General Education	.....		(4 cr)
Total 14 Credits			

Spring Semester

ACCT 2012*	Accounting Principles II	.....	(4 cr)
ACCT 2138*	Computerized Accounting Software		(3 cr)
ACCT 2140	Accounting Applications	.....	(3 cr)

Additional Related Course Credits	.....	(3 cr)
General Education	.....	(3 cr)
Total 16 Credits		

Second Year - Fall Semester

ACCT 2121*	Intermediate Accounting I	.....	(4 cr)
ACCT 2165*	Income Tax	.....	(4 cr)
BUSN 1166	Business Communications	.....	(3 cr)
General Education	.....		(5 cr)
Total 16 Credits			

Spring Semester

ACCT 2123*	Intermediate Accounting II	.....	(4 cr)
ACCT 2161*	Cost Accounting I	.....	(3 cr)
ACCT 2170*	Federal & State Tax		
	Updates Using Software	.....	(1 cr)
ACCT 2137*	Accounting for Governmental and Not-for-Profit Entities	.....	(3 cr)
General Education	.....		(3 cr)

Spring Semester Total 14 Credits

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

Diploma Curriculum

Fall Semester

ACCT 2011	Accounting Principles I	.....	(4 cr)
ACCT 2111	Accounting Principles I Lab	.....	(1 cr)
ACCT 2114	Payroll Accounting	.....	(3 cr)
BUSN 1131	Business Math	.....	(3 cr)
BUSN 2541	Legal Environment of Business	.....	(3 cr)
COMP 1120	Intro to Computer Applications	.....	(3 cr)
Total 17 Credits			

Spring Semester

ACCT 2012*	Accounting Principles II	.....	(4 cr)
ACCT 2112	Accounting Principles II Lab	.....	(1 cr)
ACCT 2138*	Computerized Accounting Software		(4 cr)
ACCT 2140	Accounting Applications	.....	(3 cr)
BUSN 1166	Business Communications	.....	(3 cr)
Total 15 Credits			

GRADUATION REQUIREMENT 32 CREDITS

*Denotes Prerequisites

Bookkeeping Certificate Curriculum

Fall Semester

ACCT 2011	Accounting Principles I	.....	(4 cr)
ACCT 2114*	Payroll Accounting	.....	(3 cr)
BUSN 1131	Business Math	.....	(3 cr)
Total 11 credits			

Spring Semester

ACCT 2012*	Accounting Principles II	.....	(4 cr)
ACCT 2140	Accounting Applications	.....	(3 cr)
ACCT 2138*	Computerized Accounting Software	.....	(3 cr)
Total 9 credits			

GRADUATION REQUIREMENT 20 CREDITS

*Denotes Prerequisites

ADMINISTRATIVE ASSISTANT



Career Description

Administrative assistants perform a variety of administrative tasks in support of managers and others in an organization including duties once reserved solely for managers. Successful administrative assistants must be highly organized and possess excellent computer, writing and communication skills. Knowledge of a variety of office equipment and 21st century office procedures is vital. Administrative assistants may perform research, create spreadsheets, compose correspondence, manage databases, generate reports, and create presentations. Various positions may also require handling travel arrangements, maintaining inventories and planning and scheduling meetings and appointments. Administrative assistants will also manage electronic and paper communications and files.

Program Information

The Administrative Assistant Associate in Applied Science (A.A.S) Degree program prepares graduates by introducing them to a wide variety of subjects that will prepare them to manage and organize themselves and their workplace environment. In addition this program prepares the student to acquire comprehensive skills and assume responsibilities in the workplace. Students will have advanced training with computer technology that will

prepare the student for the constantly changing and increasingly automated business environment. The A.A.S. degree combines expert technical and business instruction with a well-balanced academic background. The program will prepare the student in skill sets such as computer applications, communication, teamwork and collaboration, customer focus, problem-solving and critical thinking, professionalism, productivity, ethics, and leadership along with business qualities. Students are also prepared to train and supervise lower-level support staff. The 33-credit Administrative Support diploma prepares students for support staff positions such as a receptionist or other office or clerical jobs.

Program Outcomes

Graduates will be able to:

- Apply the principles of grammar, punctuation, spelling and vocabulary.
- Apply computer skills efficiently and accurately to office tasks using a variety of computer application programs.
- Conduct research and electronically retrieve information.
- Demonstrate effective interpersonal and human relations skills in a business environment in order to lead and complete individual and team projects.
- Perform appropriate office procedures as related to records information management, electronic communications, and mail management.
- Demonstrate critical-thinking, organization, prioritization and problem-solving skills.
- Identify unethical workplace behaviors and steps for working ethically and professionally.

Certification

This program would help prepare students for the Microsoft Office Specialist (MOS) certificates Microsoft Word, Excel, Powerpoint, Outlook and Access. Other certifications and memberships are available, including those through the International Association of Administrative Professionals (IAAP).

ADMINISTRATIVE ASSISTANT**Admissions**

The program is offered on the Brainerd Campus, but a portion of the courses can be completed online.

Career Titles

Administrative Assistant, Executive Assistant, Office Assistant, Secretary, Administrative Clerk, Receptionists, Human Resource Assistants.

Administrative Assistant**A.A.S. Curriculum****First Year - Fall Semester**

BUSN 1131	Business Math	.....(3 cr)
COMP 1109	Introduction to Operating Systems	..(3 cr)
COMP 1131	Microsoft Word Comprehensive	....(4 cr)
COMP 1135	Microsoft Excel Comprehensive	.....(4 cr)

Total 14 Credits

Spring Semester

ADMN 1120	Administrative Support Applications	.....(3 cr)
ADMN 1125	Business English Skills	.....(3 cr)
ADMN 1156	Championship Keyboarding	.....(3 cr)
BUSN 1166	Business Communications	.....(3 cr)
COMP 1133	Microsoft PowerPoint Comprehensive	.....(3 cr)
COMP 1134	Microsoft Outlook Comprehensive	.....(1 cr)

Total 16 Credits

Second Year - Fall Semester

BUSN 1102	Accounting for Non-accountants	... (3 cr)
MGMT 1110	Frontline Leadership	.....(3 cr)
General Education		.....(9 cr)

Total 15 Credits

Spring Semester

ADMN 2110	Administrative Assistant Capstone	.....(3 cr)
or		
ADMN 2150	Internship	.....(3 cr)
MGMT 1114	Human Resource Management	.....(3 cr)
MKTG 1162	Customer Relations	.....(3 cr)
General Education		.....(6 cr)

Total 15 Credits

GRADUATION REQUIREMENT 60 CREDITS

Administrative Support**Diploma Curriculum****Fall Semester**

BUSN 1102	Accounting for Non-accountants	... (3 cr)
BUSN 1131	Business Math	.....(3 cr)
COMP 1109	Introduction to Operating Systems	..(3 cr)
COMP 1131	Microsoft Word Comprehensive	....(4 cr)
COMP 1135	Microsoft Excel Comprehensive	.....(4 cr)

Total 17 Credits

Spring Semester

ADMN 1120*	Administrative Support Applications	.....(3 cr)
ADMN 1125*	Business English Skills	.....(3 cr)
ADMN 1156	Championship Keyboarding	.....(3 cr)
BUSN 1166	Business Communications	.....(3 cr)
COMP 1134	Microsoft Outlook Comprehensive	..(1 cr)
MKTG 1162	Customer Relations	.....(3 cr)

Total 16 Credits

GRADUATION REQUIREMENT 33 CREDITS

*Denotes Prerequisite

BUSINESS MANAGEMENT



Career Description

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.

Program Information

Business management degrees continue to lead the nation as the number one choice of study in higher education. Students in the Associate of Applied Science Business Management Program receive hands-on, skill-based business training with the opportunity to specialize in entrepreneurship, supervision, sales and marketing.

Program Outcomes

Graduates will be able to:

- 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;

- Access, analyze, and interpret relevant information specific to business strategies.

Admissions

Central Lakes College has Advanced Standing Articulation (or “Tech Prep”) agreements with area high schools. Contact the CLC Registrar to identify individual Tech Prep business courses your high school offers for college credit.

Business Management

A.A.S. Curriculum

Program Course Requirements

BUSN 1102	Accounting for Non-Accountants . . .	(3cr)
BUSN 1131	Business Math	(3cr)
BUSN 1166	Business Communications	(3cr)
BUSN 2541	Legal Environment of Business	(3cr)
COMP 1121*	Advanced Computer Applications . .	(3cr)
MGMT 1011	Management Principles	(3cr)
MGMT 1101	Entrepreneurship	(3cr)
MGMT 1108	Quality & Performance Management	(3cr)
MGMT 1110	Frontline Leadership	(3cr)
MGMT 1114	Human Resource Management	(3cr)
MGMT 1126*	Financial Management	(3cr)
MKTG 1011	Marketing Principles	(3cr)
MKTG 1162	Customer Relations	(3cr)
MKTG 1164	International Business	(3cr)
MKTG 1168	Professional Sales	(3cr)

Total 45 Credits

General Education

Student must complete the requirements listed in the A.A.S. Degree/General Education Transfer Curriculum document.

Total 15 Credits

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

ENTREPRENEURSHIP

Career Description

The opportunity to own a small business has been the American dream for many over the past century. Small businesses employ over half of all private sector employees and have generated 64 percent of net new jobs over the past 15 years. 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.

The Minnesota Department of Employment and Economic Development's recent data show a higher increase in new business starts in non-urban and rural areas of the state. Several initiatives promote and create growth of entrepreneurial activity in Greater Minnesota. Investing in small business development promotes the economic growth and vitality of the region.

Program Information

This program emphasizes the innovative and entrepreneurial skills required to succeed 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 Entrepreneurism 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 Entrepreneurship Certificate demonstrates why good planning leads to successful business performance. Students gain insight in how the various pieces of the business puzzle fit together for the venture to operate successfully.

Program Outcomes

Graduates will be able to:

- 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.

Entrepreneurship Certificate Curriculum

Program Course Requirements:

BUSN 1102	Accounting for Non-Accountants . . .	(3cr)
BUSN 1166	Business Communications	(3cr)
MGMT 1101	Entrepreneurship	(3cr)
MGMT 1150*	Entrepreneurship Capstone	(1cr)
MKTG 1011	Marketing Principles	(3cr)
Total 13 Credits		

Elective:

Student must choose an additional 3 credits from any of the courses with a BUSN, COMP, MKTG, or MGMT prefix.

Total 3 Credits

GRADUATION REQUIREMENT 16 CREDITS

HEALTHCARE ADMINISTRATIVE SPECIALIST

Career Description

Healthcare Administrative Specialist is ideal for individuals who would like a career in healthcare, but are not interested in the 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, researchers, and other healthcare staff to contribute to the quality of patient care behind the scenes.

Program Information

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, transcription, utilization and risk management, 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 process, workflow, and reform; identify and prevent fraud and abuse while maintaining corporate compliance including HIPAA and data security; conduct analysis to ensure the documentation in the health record supports the diagnosis and reflects the patient's progress, clinical findings, and discharge states; and to support physician reimbursement and revenue cycle management.

Program Outcomes

Graduates will be able to:

- Perform duties to provide optimal services to the patient and organization;
- Apply terminology, classifications, legal, and accreditation standards to medical documentation;
- Apply skills in managing the revenue cycle, health information, compliance regulations, and general business processes;
- Utilize computers, healthcare software applications and technologies;

- Demonstrate critical thinking and problem-solving skills;
- Model professional and ethical behaviors.

Special Program Requirements

In order to graduate from the Healthcare Administrative Specialist program, students must earn a cumulative GPA of 2.0 in the credits attempted and completed towards the technical core of the degree.

Admissions

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-class room, hybrid (both in-class 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.

Transfer Opportunities

Contact an admissions representative for information regarding transfer opportunities.

Career Titles

This program will help students prepare for a wide range of careers including the following: Admitting Clerk, Patient Service Representatives, Registrar, Release of Information Clerk, Scheduler, Medical Transcriptionist, Patient Accounts Representative, Insurance Claims Analyst, Clinical Data Specialist, Medical Coder, Quality Data Analyst, Quality Improvement Technician, Reimbursement Specialist, Compliance Technician, and Health Information Technician.

HEALTHCARE ADMINISTRATIVE SPECIALIST**Healthcare Administrative Specialist****A.A.S. Curriculum****Fall Semester - First Year**

COMP 1120	Intro to Computer Applications	..... (3 cr)
HINS 1142	Healthcare Information Systems	..... (3 cr)
BIOL 1404	Human Biology	..... (3 cr)
HINS 1163	Medical Office Procedures	..... (3 cr)
ENGL 1501	Writing Fundamentals for Healthcare Professionals	..... (1 cr)
HINS 1360*	Medical Terminology	..... (3 cr)
Total 16 Credits		

Spring Semester

BUSN 1166	Business Communications	..... (3 cr)
HINS 1144	Healthcare Pharmacotherapy	..... (2 cr)
HINS 1150*	Intro to DX and Procedure Coding	.. (3 cr)
HINS 1140	Healthcare Delivery Systems	..... (3 cr)
HINS 1166*	Medical Transcription I	..... (2 cr)
HINS 1165	Medical Records Management	..... (3 cr)
Total 16 Credits		

Fall Semester - Second Year

HINS 2144	Legal Aspects of Healthcare	..... (2 cr)
HINS 2140	Intermediate DX Coding	..... (4cr)
MKTG 1162	Customer Relations	..... (3 cr)
General Education		..... (6 cr)
Total 15 Credits		

Spring Semester

HINS 2172	Reimbursement Methods	..... (3 cr)
HINS 2142	Intermediate Procedure Coding	..... (4 cr)
General Education		..... (6 cr)
Total 13 Credits		

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

Healthcare Administrative Specialist**Diploma Curriculum****Fall Semester - First Year**

COMP 1120	Intro to Computer Applications	..... (3 cr)
HINS 1142	Healthcare Information Systems	..... (3 cr)
BIOL 1404	Human Biology	..... (3 cr)
HINS 1163	Medical Office Procedures	..... (3 cr)
ENGL 1501	Writing Fundamentals for Healthcare Professionals	..... (1 cr)
HINS 1360*	Medical Terminology	..... (3 cr)
Total 16 Credits		

Spring Semester

BUSN 1166	Business Communications	..... (3 cr)
HINS 1144	Healthcare Pharmacotherapy	..... (2 cr)
HINS 1150*	Intro to DX and Procedure Coding	.. (3 cr)
HINS 1140	Healthcare Delivery Systems	..... (3 cr)
HINS 1166*	Medical Transcription I	..... (2 cr)
HINS 1165	Medical Records Management	..... (3 cr)
Total 16 Credits		

GRADUATION REQUIREMENT 32 CREDITS

*Denotes Prerequisites

HEALTHCARE ADMINISTRATIVE SPECIALIST**Frontline Leadership Emphasis****Career Description**

Healthcare Administrative Specialist is ideal for individuals who would like a career in healthcare, but are not interested in the 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, researchers, and other healthcare staff to contribute to the quality of patient care behind the scenes.

Program Information

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, transcription, utilization and risk management, 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 process, workflow, and reform; identify and prevent fraud and abuse while maintaining corporate compliance including HIPAA and data security; 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.

The two-year graduate adds general education knowledge to increase value to one's academic foundation. Students in the supervisory emphasis take 8 credits in management and computers which are selected from the following courses: Microsoft Excel Comprehensive, Management Principles, Accounting for non-Accountants, Quality and Performance Management, Human resources and Customer Relations.

Program Outcomes:

Graduates will be able to:

- Perform duties to provide optimal services to the patient and organization;
- Apply terminology, classifications, legal, and accreditation standards to medical documentation;
- Apply skills in managing the revenue cycle, health information, compliance regulations, and general business processes;
- Utilize computers, healthcare software applications and technologies;
- Demonstrate critical thinking and problem-solving skills;
- Model professional and ethical behaviors;
- Demonstrate effective listening, written and oral communication skills.

Special Program Requirements

Students enrolled in the Healthcare Administrative Specialist program are required to achieve a minimum of a 2.00 GPA in the program to obtain the diploma or A.A.S degree.

Admissions

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-class room, hybrid (both in-class 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.

Transfer Opportunities

Contact an admissions representative for information regarding transfer opportunities.

Career Titles

This program will help students prepare for a wide range of careers including the following: Admitting Clerk, Patient Service Representatives, Registrar, Release of Information Clerk, Scheduler, Medical Transcriptionist, Patient Accounts Representative, Insurance Claims Analyst, Clinical Data Specialist, Medical Coder, Quality Data Analyst, Quality

HEALTHCARE ADMINISTRATIVE SPECIALIST**Frontline Leadership Emphasis**

Improvement Technician, Reimbursement Specialist, Compliance Technician, and Health Information Technician.

**Healthcare Administrative
Specialist
Frontline Leadership Emphasis
A.A.S. Curriculum**

Fall Semester - First Year

COMP 1120	Intro to Computer Applications	..... (3 cr)
HINS 1142	Healthcare Information Systems	..... (3 cr)
BIOL 1404	Human Biology	..... (3 cr)
HINS 1163	Medical Office Procedures	..... (3 cr)
ENGL 1501	Writing Fundamentals for Healthcare Professionals	..... (1 cr)
HINS 1360*	Medical Terminology	..... (3 cr)
Total 16 Credits		

Spring Semester

BUSN 1166	Business Communications	..... (3 cr)
HINS 1144	Healthcare Pharmacotherapy	..... (2 cr)
HINS 1150*	Intro to DX and Procedure Coding	..... (3 cr)+
HINS 1140	Healthcare Delivery Systems	..... (3 cr)
HINS 1166*	Medical Transcription I	..... (2 cr)
HINS 1165	Medical Records Management	..... (3 cr)
Total 16 Credits		

Fall Semester - Second Year

HINS 2144	Legal Aspects of Healthcare	..... (2 cr)
MGMT 1110	Frontline Leadership	..... (3 cr)
MKTG 1162	Customer Relations	..... (3 cr)
General Education		..... (6 cr)
Total 14 Credits		

Spring Semester

HINS 2172	Reimbursement Methods	..... (3 cr)
BUSN 1102	Acctg for Non-Accountants	..... (3 cr)
General Education		..... (8 cr)
Total 14 Credits		

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

HEALTHCARE ADMINISTRATIVE SPECIALIST**Transcription Emphasis****Career Description**

Medical transcriptionists use their knowledge of medical terms and procedures to perform a variety of tasks needed to convert voice recordings from healthcare providers and convert them to written reports. Medical Transcriptionist interpret medical terminology and abbreviations in preparing patients' medical histories, discharge summaries, and other documents. Medical transcriptionists are able to fill the role of medical scribes. A medical scribe joins the healthcare provider during a patient examination and types notes into Electronic Health Records. Medical scribes type in symptoms, diagnoses and medical codes. Medical scribes may also become a liaison for the healthcare provider when working with laboratories and staff, ordering tests, diagnostics or shots.

Program Information

The 60-credit Healthcare Administrative Specialist A.A.S. Degree prepare the graduate to provide patient service in the healthcare setting. The program prepares the graduate to provide medical transcription/scribe services in a healthcare environment. Instructors teach anatomy, physiology, pharmacology, disease process, pathology and medical terminology as well as office procedures, records management, revenue cycle and health information systems. The two-year graduate adds general education knowledge to increase value to one's academic foundation along with case scenarios that are aligned with today's industry. Students will receive instruction in communication and soft skills. The degree establishes credibility for consideration in transcription and prepares students to take a nationally recognized certification exam.

Program Outcomes:

Graduates will be able to:

- Correctly spell, define, and pronounce medical terminology
- Utilize computers, health care software applications and other technologies
- Perform transcription/scribe responsibilities which provide optimal services to patient and employer
- Demonstrate critical thinking and problem-solving skills

- Demonstrate effective listening, written and oral communication skills
- Model professional and ethical behaviors, especially confidentiality and compassion

Special Program Requirements

In order to graduate from the Healthcare Administrative Specialist program, students must earn a cumulative GPA of 2.0 in the credits attempted and completed towards the technical core of the degree.

Career Titles

This program will help students prepare for a career as a Medical Transcription or Medical Scribe.

Healthcare Administrative Specialist**Transcription Emphasis****A.A.S. Curriculum****Fall Semester - First Year**

COMP 1120	Intro to Computer Applications	(3 cr)
HINS 1142	Healthcare Information Systems	(3 cr)
BIOL 1404	Human Biology	(3 cr)
HINS 1163	Medical Office Procedures I	(3 cr)
ENGL 1501	Writing Fundamentals for Healthcare Professionals	(1 cr)
HINS 1360*	Medical Terminology	(3 cr)
Total 16 Credits		

Spring Semester - First Year

BUSN 1166	Business Communications	(3 cr)
HINS 1144	Healthcare Pharmacotherapy	(2 cr)
HINS 1150*	Intro to DX and Procedure Coding	(3 cr)
HINS 1140	Healthcare Delivery Systems	(3 cr)
HINS 1166*	Medical Transcription I	(2 cr)
HINS 1165	Medical Records Management	(3 cr)
Total 16 Credits		

Fall Semester - Second Year

HINS 2144	Legal Aspects of Healthcare	(2 cr)
HINS 2160	Medical Transcription II	(4 cr)
General Education		(6 cr)
Total 12 Credits		

Spring Semester - Second Year

ADMN 1302	Championship Typing	(3 cr)
HINS 2172	Reimbursement Methods	(3 cr)
HINS 2162	Medical Transcription III	(4 cr)
General Education		(6 cr)
Total 16 Credits		

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

HOSPITALITY CAREERS**Hospitality Certificate Curriculum****Program Course Requirements**

MKTG 1160	Hotel & Resort	.....	(2cr)
MGMT 1312*	Business Management Internship	..	(1-3cr)
MKTG 1162	Customer Relations	.....	(3cr)
	Electives	.....	2-4 Credits

GRADUATION REQUIREMENT 10 CREDITS

*Denotes Prerequisite

Career Description

The hospitality industry is one of the oldest in the world. Today's combined hospitality industry ranks third in size among the nation's industries; it is complex and diverse, requiring skilled professionals. Unprecedented growth in the service economy has created demand for hospitality business leaders in hotels, resorts, clubs, contract food services, major national and international airlines, public institutions, restaurants, country clubs, professional and trade associations, major travel agencies, and other venues that focus on hospitality. This certificate provides entry-level skills for immediate employment at local resorts. An Associate in Science Degree is under development.

Program Outcomes

Graduates will be able to:

- Demonstrate knowledge of, and relationship between, functional areas of hospitality;
- Effectively communicate with internal and external customers.

OFFICE ASSISTANT**Office Assistant Certificate Curriculum****Program Course Requirements**

BUSN 1102	Accounting for Non-Accountants . . .	(3 cr)
BUSN 1166	Business Communications	(3 cr)
BUSN 1131	Business Math	(3 cr)
COMP 1109	Intro to Operating Systems	(3 cr)
COMP 1120	Introduction to Computer Applications	(3 cr)
MKTG 1162	Customer Relations	(3 cr)

GRADUATION REQUIREMENT 18 CREDITS

Career Description

The Office Assistant Certificate program enhances the entry level skills of individuals performing administrative duties. The certificate includes instruction in accounting for non-accountants, business communications, business math, customer relations, and computer operation systems and applications.

Program Outcomes

Graduates will be able to:

- 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

Special Program Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate: 1. The cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0; 2. Students must complete one third (6) of their credits at Central Lakes College.

OCCUPATIONAL SKILLS

Career Description

The Occupational Skills Program (OSP) is a technical college program that offers work-based training and classroom instruction for persons with disabilities with the outcome of competitive entry-level employment. Students in OSP 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 OSP also promote social, physical and emotional growth in the college setting.

Program Information

OSP is a nine-month diploma program, staffed by one coordinator/instructor and two laboratory assistants. Specific skills needed for employment are taught at the business, college or community where students receive training. Coursework in the classroom reinforces basic work skills learned at the employment site, which increases student success at any workplace. Other skill outcomes for students in OSP taught in the classroom include communication skills (verbal, nonverbal and written,) problem-solving skills (goal-setting, self advocacy and relationship building, etc.) and decision-making skills (i.e. citizenship skills, budgeting, self management.) Students can also participate in an elective summer internship course which provides follow-up services at their place of employment following graduation.

Program Outcomes

Graduates will be able to:

- 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.

Special Program Requirements

Students in OSP have documented disabilities and the ability to compete for entry-level job positions in the community in which they reside. All after-school services required for independent living are secured by the student and family before the onset of Fall semester. Students can apply for OSP in the fall, beginning on Sept. 1, 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 OSP orientation in late spring.

Career Titles

Common job titles for graduates include stock person, line worker, housekeeping, waitress, ride operator, dishwasher and dietary aide.

Occupational Skills Diploma Curriculum

Fall Semester

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)

Total 17 credits

Spring Semester

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 I	.....	(4 cr)
OSKL 1164	Study Skills II	.....	(1 cr)
OSKL 1166	Communication II	.....	(3 cr)
	Elective	.....	(1 cr)

Total 17 credits

GRADUATION REQUIREMENT 34 CREDITS

CHILD DEVELOPMENT



Career Description

The Child Development Program 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.

Program Information

Subjects covered in this program include child guidance, health, safety, nutrition, child development, parent relations, introduction to special education and professional leadership.

Program Outcomes:

Graduates will be able to:

- Integrate child development theory with appropriate practice in early care and education settings
- Plan and prepare effective instruction
- Demonstrate effective oral and written communications with families, coworkers, agencies, and early childhood partners
- Incorporate diverse teaching methods and strategies appropriate to addressing the needs of children and families
- Plan culturally relevant activities to nurture cognitive, physical, language, social and emotional development

- 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
- Recognize ethical, legal and professional responsibilities

Admissions

Child development courses are scheduled during the day with at least one additional course offered in the evening each semester. Some courses are offered online. This program 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 or admissions counselor for more details.

Transfer Opportunities

The Associate of Arts (A.A.) degree with a Child Development Certificate transfers to any MnSCU institution.

Career Titles

This program will help students prepare for a wide range of careers, including the following: school-age caregiver, early care and education assistant teacher, childcare giver, family childcare provider, Head Start teacher, nanny, and elementary school paraprofessional. Assistant teacher in childcare centers, family childcare provider, Head Start teacher, elementary school paraprofessional, school-age care provider, school district, private preschool teacher

CHILD DEVELOPMENT**Child Development
Care & Guidance****A.A.S. Curriculum****First Year - Fall Semester**

CDEV 1100 Foundations of Child Development . . . (3 cr)
 CDEV 1105 Child Safety, Health & Nutrition (4 cr)

or all four (4) of these courses:

CDEV 1305 Child Abuse & Neglect (1 cr)
 CDEV 1306 Child Safety (1 cr)
 CDEV 1307 Child Health (1 cr)
 CDEV 1308 Child Nutrition (1 cr)

CDEV 1110 Guidance: Managing Physical/
 Social Environ. (4 cr)

CDEV 1150 Childcare Business Strategies (3 cr)
 OR

CDEV 2342 School Age Development (4 cr)
Total 14-15 Credits

Spring Semester

CDEV 1115 Planning & Implementing
 Curriculum (3 cr)

OR

CDEV 2340 Professional Leadership (3 cr)

CDEV 1130 Infant/Toddler
 Development & Learning (4 cr)

CDEV 1133 Creative Developmental
 Experiences (3 cr)

CDEV 1135 Profiles of Exceptional Child (3 cr)

CDEV 1160 Internship (4 cr)
Total 17 Credits

Second Year - Fall Semester

CDEV 1120 Professional Relations
 Early Childhood Careers (3 cr)

CDEV 2343 School Age Development
 & Learning Exp. (4 cr)

OR

CDEV 1150 Childcare Business Strategies (3 cr)

CDEV 2350 Practicum I (3 cr)

General Education (4 cr)
Total 13-14 Credits

Spring Semester

CDEV 2340 Professional Leadership (3 cr)

OR

CDEV 1115 Planning & Implementing
 Curriculum (3 cr)

Elective (1 cr)

General Education (11 cr)
Total 15 Credits

GRADUATION REQUIREMENT 60 CREDITS

**Child Development
Certificate Curriculum****Fall Semester**

CDEV 1100 Foundations of Child Development . . (3 cr)

CDEV 1105 Child Safety, Health & Nutrition (4 cr)

CDEV 1110 Guidance: Managing Physical/
 Social Environment (4 cr)

Total 11 Credits

Spring Semester

CDEV 1115 Planning and Implementing
 Curriculum (3 cr)

OR

CDEV 2340 Professional Leadership (3 cr)

CDEV 1160 Internship (3 cr)

CDEV 1135 Profiles of the Exceptional Child (3 cr)

Total 9 Credits

GRADUATION REQUIREMENT 20 CREDITS

**Child Development Assistant
Diploma Curriculum****Fall Semester**

CDEV 1100 Foundations of Child Development . . (3 cr)

CDEV 1105 Child Safety, Health & Nutrition (4 cr)

or all four (4) of these courses:

CDEV 1305 Child Abuse & Neglect (1 cr)

CDEV 1306 Child Safety (1 cr)

CDEV 1307 Child Health (1 cr)

CDEV 1308 Child Nutrition (1 cr)

CDEV 1110 Guidance: Managing
 Physical/Social Environment (4 cr)

CDEV 1120 Professional Relations
 Early Childhood Careers (3 cr)

Total 14 Credits

Spring Semester

CDEV 1115 Planning &
 Implementing Curriculum (3 cr)

OR

CDEV 2340 Professional Leadership (3 cr)

CDEV 1130 Infant/Toddler Development
 & Learning (4 cr)

CDEV 1133 Creative Developmental
 Experiences (3 cr)

CDEV 1135 Profiles of Exceptional Child (3 cr)

CDEV 1160 Internship (4 cr)

Total 17 Credits

GRADUATION REQUIREMENT 31 CREDITS

CHILD DEVELOPMENT

Child Development-American Sign Language

A.A.S. Curriculum

First Year - Fall Semester

AMSL 1410	American Sign Language	.....(4 cr)
CDEV 1100	Foundations of Child Development	..(3 cr)
CDEV 1105	Child Safety, Health & Nutrition	.....(4 cr)
CDEV 1110	Guidance: Managing Physical/Social Environment	.....(4 cr)

Total 15 Credits

Spring Semester

AMSL 1412*	American Sign Language	.....(4 cr)
CDEV 1115	Planning & Implementing Curriculum	.....(3 cr)
OR		
CDEV 2340	Professional Leadership	.....(3 cr)

CDEV 1130	Infant/Toddler Development and Learning	.....(4 cr)
CDEV 1135	Profiles of Exceptional Child	.....(3 cr)

Total 14 Credits

Second Year - Fall Semester

AMSL 2410*	American Sign Language	.....(4 cr)
AMSL 2420	Deaf Culture	.....(3 cr)
CDEV 1120	Professional Relations Early Childhood Careers	.....(3 cr)
CDEV 1160	Internship	.....(4 cr)

Total 14 Credits

Spring Semester

AMSL 2412*	American Sign Language	.....(4 cr)
CDEV 1115	Planning & Implementing Curriculum	.....(3 cr)
OR		
CDEV 2340	Professional Leadership	.....(3 cr)

CDEV 1133	Creative Developmental Experiences	.....(3 cr)
CDEV 2350	Practicum I	.....(3 cr)
SPCH 2421	Intercultural Communication	.....(3 cr)
General Education		.....(1 cr)

Total 17 Credits

GRADUATION REQUIREMENT 60 CREDITS

Child Development Young Child Education

A.S. Curriculum

First Year - Fall Semester

CDEV 1100	Foundations of Child Development	..(3 cr)
CDEV 1110	Guidance: Managing Physical/Social Environment	.....(4 cr)
CDEV 1120	Professional Relations Early Childhood Careers	.....(3 cr)
General Education		.....(6 cr)

Total 16 Credits

Spring Semester

CDEV 1130	Infant/Toddler Development & Learning	.....(4 cr)
CDEV 1135	Profiles of Exceptional Child	.....(3 cr)
CDEV 1160	Internship	.....(4 cr)
General Education	(3 cr)

Total 14 Credits

Second Year - Fall Semester

General Education	(15cr)
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Total 15 Credits

Spring Semester

CDEV 2100	Introduction to Foundations of Public School Education(3 cr)
CDEV 2102	Foundations of Early Education	.....(3 cr)
CDEV 2120	Understanding & Supportive Parenting	.....(3 cr)
General Education		.....(6 cr)

Total 15 Credits

GRADUATION REQUIREMENT 60 CREDITS

SPECIAL EDUCATION**Career Description**

Graduates will be qualified to seek immediate employment as paraprofessionals in public or private schools and will be particularly qualified to work with students with special needs, which is the largest segment of paraprofessional needs.

Program Information

The Special Education A.A.S. degree is designed to meet the needs of individuals seeking employment as a special education paraprofessional. The program is also beneficial to anyone working in family or center-based childcare, as a nanny, or preschool teacher. Through an articulation agreement with the College of Education at St. Cloud State University, students can transfer the credits directly into a Bachelor' Degree program in special education.

Program Outcomes

Graduates will be able to:

- Integrate child development theory with appropriate practice in early care and education settings.
- Plan and prepare effective instruction.
- Demonstrate effective oral and written communications with families, coworkers, agencies, and early childhood partners.
- Plan culturally relevant activities to nurture cognitive, physical, language, social and emotional development.
- Recognize ethical, legal, and professional responsibilities.
- Summarize and demonstrate understanding of special education laws and regulations, the needs of special education students and the special education working environment.

Special Program Requirements

A MN DHS background check must be obtained before the student is admitted to the degree program.

Accreditation

The CLC Child Development program is currently involved in the National Association for the Education of Young Children accreditation process.

Transfer Opportunities

Students can transfer the entire A.A.S. degree directly into the Bachelors Degree program in Special Education at St. Cloud State University.

Career Titles

Special Education paraprofessional

**Special Education
A.A.S. Curriculum****First Year - Fall Semester**

CDEV 1100	Foundations of Child Development . .	(3 cr)
OR		
CEEP 361	Intro to Educational Psychology (must enroll in this course through SCSU)	

PSYC 2421	General Psychology	(4 cr)
General Education	. . . . .	(8 cr)

Total 15 Credits

Spring Semester

CDEV 1135	Profiles of Exceptional Child	(3 cr)
CDEV 2100	Intro to Found of Public School Ed . .	(3 cr)
CDEV 2112	Collaboration Skills & Trans Trng	(3 cr)
General Education	. . . . .	(5 cr)

Total 14 Credits

Second Year - Fall Semester

CDEV 2110	Characteristics of Learning & Behavioral Disorders	(3 cr)
CDEV 2114	Intro to Autism Spectrum Disorder . .	(2 cr)
General Education	. . . . .	(10 cr)

Total 15 Credits

Spring Semester

HLTH 1507	Drug Awareness	(3 cr)
PSYC 2431*	Human Development	(3 cr)
General Education	. . . . .	(10 cr)

Total 16 Credits

GRADUATION REQUIREMENT 60 CREDITS

* Denotes Prerequisites

**Special Education
Certificate Curriculum****Program Course Requirements**

CDEV 1100	Foundations of Child Development . .	(3 cr)
CDEV 1110	Guidance: Managing Physical/ Social Environment	(4 cr)
CDEV 1115	Planning & Implementing Curriculum	(3 cr)
CDEV 1135	Profiles of Exceptional Child	(3 cr)
CDEV 1160	Internship	(2 cr)
CDEV 2110	Characteristics of Learning & Behavioral	(3 cr)
CDEV 2114	Intro to Autism Spectrum Disorder	(2 cr)

GRADUATION REQUIREMENT 20 CREDITS

COMPUTER INFORMATION TECHNOLOGY

Career Description

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. In smaller organizations, IT specialists will likely be responsible for all of these functions.

Program Information

IT specialists are in high demand. The Information Technology Specialist Program will help prepare graduates by introducing them to a wide variety of subjects in information and emerging technologies that 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. There is 100% placement of our graduates within the IT field.

Program Outcomes

Graduates will be able to:

- 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.

Certification

This program will help students prepare 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 Titles

This program will help students prepare for a wide range of careers in the IT field, including the following: 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.

Note:

Central Lakes College is a Prometric, VUE, and Certiport Authorized Test Center. All certification exams can be delivered on site.

COMPUTER INFORMATION TECHNOLOGY**Computer Information
Technology A.A.S. Curriculum****First Year - Fall Semester**

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 1230	Network Essentials	(4 cr)
General Education	. . . . .	(1 cr)
Total	– 15 credits	

Spring Semester

COMP 1121*	Advanced Computer Applications . . .	(3 cr)
COMP 1206*	Computer Repair II – A+ Operating Systems	(3 cr)
COMP 1253*	Client Operating Systems Administration	(4 cr)
COMP Course Elective	. . . . .	(1 cr)
General Education	. . . . .	(4 cr)
Total	– 15 credits	

Second Year – Fall Semester

COMP 2153*	Client Operating Systems Management	(4 cr)
COMP 2160*	Ethics in Information Technology . . .	(2 cr)
COMP 2202*	Computer User Support	(3 cr)
General Education	. . . . .	(6 cr)
Total	– 15 credits	

Spring Semester

COMP 2111*	Security Essentials	(4 cr)
COMP 2116*	IT Project Management	(3 cr)
COMP 2170*	Linux Systems	(4 cr)
General Education	. . . . .	(4 cr)
Total	– 15 credits	

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisite or Co-requisite

COMPUTER NETWORK ADMINISTRATION

Career Description

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.

Program Information

The Associate of Applied Science (A.A.S.) Computer Network Administration 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. There is 100% placement of our graduates within the IT field.

Program Outcomes

Graduates will be able to:

- 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.

Certification

This program will help students prepare 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 Certipoint Authorized Test Center. All certification exams can be delivered on-site.

Career Titles

This program will help students prepare for careers in networking such as MCSE, MCSA, network administrator, network engineer, systems analyst, local area network (LAN) administrator, wide area network (WAN) administrator, network security specialist and systems engineer.

COMPUTER NETWORK ADMINISTRATION**Computer Network Administration****A.A.S. Curriculum****First Year - Fall Semester**

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 1230	Network Essentials	(4 cr)
	General Education	(1 cr)
Total – 15 credits		

Spring Semester

COMP 1206*	Computer Repair II – A+ Operating Systems	(3 cr)
COMP 1253*	Client Operating Systems Administration	(4 cr)
COMP 2150*	Windows Server Administration I	(5 cr)
	General Education	(3 cr)
Total – 15 credits		

Second Year – Fall Semester

COMP 2115*	Command Line and PowerShell Administration	(4 cr)
COMP 2151*	Windows Server Administration II	(5 cr)
	General Education	(6 cr)
Total – 15 credits		

Spring Semester

COMP 2111*	Security Essentials	(4 cr)
COMP 2152*	Windows Server Administration III	(5 cr)
	COMP Course Elective	(1 cr)
	General Education	(5 cr)
Total – 15 credits		

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites or Co-requisites

COMPUTER NETWORK ADMINISTRATION**CISCO****Career Description**

Cisco network administrators install, configure, test, secure 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, they provide day-to-day support for software users and direct the work of other computer specialists such as analysts, programmers, and technicians.

Program Information

The Associate of Applied Science (A.A.S.) Cisco Networking Program is a highly-rigorous track with heavy emphasis on industry certification. Coursework includes general networking technologies, network troubleshooting, operating system technologies, project management, computer repair, routing and switching, VoIP and security. 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 Cisco hardware and current industry software, including Operating System (OS), Network Operating System (NOS) and other applications.

Program Outcomes

Graduates will be able to:

- Perform computer information technology practices and procedures required for entry-level to mid-level employment and apply theoretical principles;
- Install, manage, configure and use functions and features of current releases of networking equipment, 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 standard;
- Communicate effectively with technical and non-technical audiences.

Special Program Requirements

In order to graduate from this program, students must earn a cumulative GPA of 2.0 in the credits attempted and completed towards the technical core of the degree.

Certification

This program will help students prepare for the following certifications: Cisco Certified Network Associate (CCNA) Switching & Routing, CCNA Security, CCNA VoIP, Microsoft Certified Systems Administrator (MCSA), Microsoft Certified Professional (MCP), CompTIA A+, Network+, Server+, Security+, Project+, Linux+ , and others. Central Lakes College is a Prometric and VUE Authorized Test Center. All certification exams can be delivered on-site.

Career Titles

This program will help students prepare for the following certifications: Cisco Certified Network Associate (CCNA) Switching & Routing, CCNA Security, CCNA VoIP, Microsoft Certified Solutions Associate (MCSA), Microsoft Certified Technology Associate (MCTA), CompTIA A+, Network+, Server+, Security+, Project+, Linux+ , and

COMPUTER NETWORK ADMINISTRATION**Cisco**

others. Central Lakes College is a Prometric, VUE, and Certiport Authorized Test Center. All certification exams can be delivered on-site.

Faculty Biography

All of 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.

Computer Network Administration - Cisco**A.A.S. Curriculum****Fall Semester - First Year**

COMP 1109	Introduction to Operating Systems ..	(3 cr)
COMP 1122	IT Essentials	(3 cr)
COMP 1123	Introduction to Networks (CCNA-I) ..	(3 cr)
General Education	.....	(6 cr)
Total 15 Credits		

Spring Semester

COMP 1124*	Routing and Switching Essentials (CCNA II)	(3 cr)
COMP 1253*	Client Operating Systems Administration	(4 cr)
COMP 2150*	Windows Server Administration I ...	(5 cr)
General Education	.....	(3 cr)
Total 15 Credits		

Second Year - Fall Semester

COMP 2130*	Scaling Networks	(3 cr)
COMP 2131*	Connecting Networks	(3 cr)
COMP 2115*	Advanced OS - Command Line and PowerShell	(4 cr)
General Education	.....	(6 cr)
Total 16 Credits		

Spring Semester

COMP 2128	IT Project Management	(3 cr)
COMP 2132*	Implementing Cisco IOS Network Security	(3 cr)
COMP 2133*	Fundamentals of Voice Over IP	(3 cr)
COMP 2170*	Linux Systems	(4 cr)
COMP Course Elective	.....	(1 cr)
Total 14 Credits		

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites or Co-rerequisites

COMPUTER NETWORK ADMINISTRATION

CyberSecurity



Career Description

CyberSecurity network administrators install, configure, test, and support an organization's network infrastructure as well as plan and implement the organization's security policy. They install and configure security hardware and software products, perform ethical hacking and penetration testing techniques to determine and eliminate any possible security risks (such as malware, phishing, viruses, denial-of-service attacks, information warfare and hacking), and investigate cyber-crime that is committed against the organization. Given the increasing amount of cyber-crime and the severity of the threats, CyberSecurity specialists are in high demand.

Program Information

The Associate of Applied Science (A.A.S.) CyberSecurity Networking Program is a highly-rigorous track with heavy emphasis on industry certification. Coursework includes general networking technologies, network troubleshooting, operating system technologies, project management, computer repair, routing and switching, and security. This program covers an overview of security and networking technologies that graduates can expect to use in industry and delivers curriculum using Cisco hardware and current industry software, including Operating System (OS), Network Operating System (NOS) and other applications.

Program Outcomes:

Graduates will be able to:

- Perform computer information technology practices and procedures required for entry-level to mid-level employment and apply theoretical principles;
- Install, manage, configure and use functions and features of current releases of networking equipment, 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.

Special Program Requirements

In order to graduate from this program, students must earn a cumulative GPA of 2.0 in the credits attempted and completed towards the technical core of the degree.

Certification

This program will help students prepare for the following certifications: Cisco Certified Network Associate (CCNA) Switching & Routing, GIAC Security Essentials (GSEC), GIAC Certified Enterprise Defender (GCED), GIAC Certified Intrusion Analyst (GCIA), Security Certified Network Professional (SCNP), Microsoft Certified Solutions Associate (MCSA), Microsoft Certified Technology Associate (MCTA), CompTIA A+, Network+, Server+, Security+, Project+, and others. Central Lakes College is a Prometric, VUE, and Certiport Authorized Test Center. All certification exams can be delivered on-site.

Career Titles

This program will help students prepare for careers in networking such as GSEC, GSED, CCNA, MCTA, MCSA, security analyst, information security officer, network

COMPUTER NETWORK ADMINISTRATION**CyberSecurity**

security administrator, network security engineer, security systems analyst, (LAN) administrator, wide area network (WAN) administrator, IT support technician, and network manager.

Computer Network Administration - CyberSecurity A.A.S. Curriculum

Fall Semester - First Year

COMP 1109 Introduction to Operating Systems . . . (3 cr)
 COMP 1122 IT Essentials (3 cr)
 COMP 1123 Introduction to Networks (CCNA - I) (3 cr)
 General Education (6 cr)
Total 15 Credits

First Year - Spring Semester

COMP 1124* Routing and Switching
 Essentials (CCNA - II) (3 cr)
 COMP 1253* Client Operating
 System Administration (4 cr)
 COMP 2111* Security Essentials (4 cr)
 COMP 2150* Windows Server Administration I . . . (5 cr)
Total 16 Credits

Second Year - Fall Semester

COMP 2115* Advanced OS - Command Line
 & PowerShell (4 cr)
 COMP 2130* Scaling Networks (CCNA - III) (3 cr)
 COMP 2154* Advanced Network Defense (3 cr)
 General Education (5 cr)
Total 15 Credits

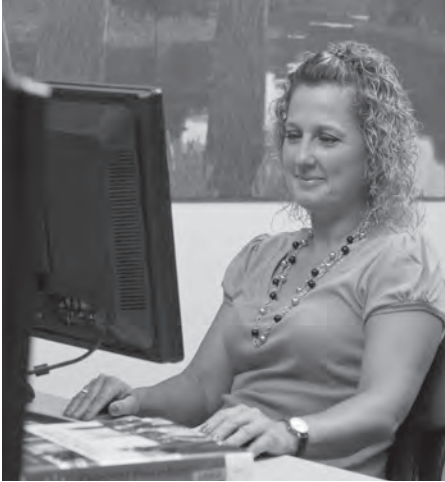
Second Year - Spring Semester

COMP 2116* IT Project Management (3 cr)
 COMP 2155* Network Intrusion (3 cr)
 COMP 2156* Security Capstone (3 cr)
 COMP Elective (1 cr)
 General Education (4 cr)
Total 14 Credits

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites or Co-requisites

COMPUTER SUPPORT SPECIALIST



Career Description

Computer support specialists are in high demand. They help people solve problems with their computer hardware and software. They help coworkers or people who bought their company's products troubleshoot the problem to determine whether to make repairs or make changes to the computer setup. Computer support specialists may read technical manuals to help 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.

Program Information

The Computer Support Specialist Program will help prepare graduates by introducing them to a wide variety of subjects in information and emerging technologies that 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.

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. There is 100% placement of our graduates within the information technology (IT) field.

Program Outcomes

Graduates will be able to:

- 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;
- Communicate effectively with technical and non-technical audiences.

Certification

This program will help students prepare 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 Certipoint Authorized Test Center. All certifications exams can be delivered on-site.

Career Titles

The studies in this program will help students prepare for careers in computer support, including computer support specialist, computer repair technician, computer operator, and help desk worker.

COMPUTER SUPPORT SPECIALIST

Note: Central Lakes College is a Prometric, VUE, and Certiport Authorized Test Center. All certification exams can be delivered on site.

Computer Support Specialist Diploma Curriculum

Fall Semester

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 1230	Network Essentials	(4 cr)
COMP 2202	Computer User Support	(3 cr)
Total – 17 credits		

Spring Semester

COMP 1121*	Advanced Computer Applications . .	(3 cr)
COMP 1206*	Computer Repair II – A+ Operating Systems	(3 cr)
COMP 1253*	Client Operating Systems Administration	(4 cr)
Choose 5 or more credits from COMP courses . . .		(5 cr)
Total – 15 credits		

GRADUATION REQUIREMENT 32 CREDITS

*Denotes prerequisites or co-requisites

Recommended Elective

COMP 2213*	Computer Careers Internship	(1-6cr)
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Help Desk Specialist Certificate Curriculum

Program Course Requirements

COMP 2214*	Help Desk Internship I.	(5cr)
COMP 2216*	Help Desk Internship II.	(5cr)
Total 10 credits		

GRADUATION REQUIREMENT 10 CREDITS

*Denotes prerequisites

EMERGING DIGITAL TECHNOLOGIES

Career Description

The Emerging Digital Technologies Certificate will help students package their learning in a way that demonstrates their knowledge and skills in various digital media areas. Through this program, students gain skills in managing and creating digital media content, assessing and using web applications for business purposes, conducting webinar meetings, utilizing social networking for business purposes, capturing digital photos, posting and managing digital video and more. In this highly digitalized world, the Emerging Digital Technologies Certificate will help students in a personal sense, as well as provide a valuable component to their technical or liberal arts degree.

Program Information

The Emerging Digital Technologies Certificate prepares students to understand, navigate, and use the ever-expanding world of emerging digital media. Courses will mix cutting-edge technology with core communications and liberal arts concepts so that students will not only be able to manage the basic technology, but will be able to use it to effectively to work with others on a personal or professional level.

Program Outcomes

Graduates will be able to:

- Use multiple emerging technology applications in a basic way for either personal or possible professional use.
- Demonstrate proficiencies in various technologies by completing project-based assessments

Special Program Requirements

Admissions: Students can start the certificate any semester. Specific program admission is not required

Transfer Opportunities

Most courses within the program may be used as elective credits toward an Associate of Arts degree and many will also meet goal areas within the MN Transfer Curriculum

Emerging Digital Technologies Certificate Curriculum

Required Courses

COMP 1140	Survey of Web-Based Tools	..... (3 cr)
OR		
COMP 1305	Exploring Digital World Technologies	..... (3 cr)
(Note: Students should satisfactorily complete a computer literacy assessment prior to enrolling or complete the recommended prerequisite of COMP 1109)		

SELECT 13 CREDITS FROM AT LEAST 2 DIFFERENT DISCIPLINES:

COMP 1120	Introduction to Computer Applications	..... (3 cr)
COMP 1121*	Advanced Computer Applications	.. (3 cr)
COMP 1138	iPad Technologies	..... (3 cr)
COMP 1140	Survey of Web-Based Tools	..... (3 cr)
COMP 1305	Exploring Digital World Technologies	..... (3 cr)
COMP 2127*	Hardware/Software Evaluation	..... (2 cr)
ARTS 1420	Digital Photography	..... (3 cr)
ETEC 1120	Immersive Worlds, Second Lives and Avatars	..... (2 cr)
PHIL 1420	Cyber Ethics	..... (2 cr)
SPCH 1472	Online Social Networking	..... (3 cr)
THTR 1430	You Tube is a Stage	..... (3 cr)
Total 16 Credits		

GRADUATION REQUIREMENT - 16 CREDITS

*Denotes Prerequisite or Co-requisite

HEALTHCARE TECHNOLOGY

Career Description

Healthcare Technology is an emerging profession within the industry of healthcare. This entry level degree demonstrates professional knowledge in healthcare information and health IT. The medical community depends on individuals who have a knowledge of the healthcare processes, state and federal compliance rules and computer information systems to create and maintain the health IT infrastructure. Healthcare technology professionals, as part of the information technology and information systems staff, work closely with providers of care, administration, vendors and other health-care staff to ensure compliance, security, and functionality for health organizations.

Program Outcomes

Graduates will be able to:

- Apply project management and change management principles to create and assist in implementation project plans to achieve the project goals;
- Install hardware, and configure and use software to meet practice needs and implementation projects;
- Confirm usability principles into design and implementation;
- Test software against performance specifications;
- Conduct user analysis to facilitate workflow design and integrate information technology into the functions of the workflow;
- Work with providers, departments to design processes and information flows;
- Interact with end users to diagnose IT problems and implement solutions;
- Support network and application systems security and standards;
- Communicate both health and IT concepts appropriately; and
- Support customers by resolving hardware and software issues.

Special Program Requirements

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

1. College Cumulative GPA Requirement: The cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0
2. Residency Requirement: students must complete one-third (20) of their credits at Central Lakes College.

Certification

This program will help students prepare for the following certifications: Microsoft MCP and MTA; Comp TIA A+, Network+, Security+, and Project+, and AHIMA CHTS (CP and IS). Central Lakes College is a VUE and Prometric Authorized Test Center. All certification exams can be delivered onsite.

Career Titles

Clinical Helpdesk, EHR Revenue Cycle Service Technician, Application System Analyst, Network Analyst, Implementation Support, Clinical Data Analyst, Application Specialist

HEALTHCARE TECHNOLOGY**Healthcare Technology A.A.S.
Degree Curriculum****Program Course Requirements****First Year - Fall Semester**

COMP 1109	Introduction to Operating Systems . . .	(3 cr)
COMP 1120	Intro to Computer Applications	(3 cr)
COMP 1204	Computer Repair I - A+ Hardware . . .	(4 cr)
HINS 1148	Intro to Healthcare Tech, Info & Biomedical	(1 cr)
PNUR 1138	Medical Terminology	(1 cr)
General Education	. . . . .	(3 cr)
Total	- 15 credits	

Spring Semester

COMP 1230*	Network Essentials	(4 cr)
COMP 1253*	Client Operating System Administration	(4 cr)
HINS 1142	Healthcare Information Systems . . .	(3 cr)
General Education	. . . . .	(4 cr)
Total	- 15 credits	

Second Year - Fall Semester

COMP 2113*	Advanced OS - Command Line & PowerShell	(4 cr)
COMP 2202*	Computer User Support	(3 cr)
HINS 2144	Legal Aspects of Healthcare	(2 cr)
General Education	. . . . .	(6 cr)
Total	- 15 credits	

Spring Semester

COMP 2111*	Security Essentials	(4 cr)
COMP 2116*	IT Project Management	(3 cr)
HINS 2146	Healthcare Application Systems . . .	(3 cr)
HINS 2148	Healthcare Management & Organization	(3 cr)
General Education	. . . . .	(2 cr)
Total	- 15 credits	

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

MICROSOFT OFFICE SPECIALIST

Program Information

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. The skills learned are designed to help office managers, technicians, administrative support personnel, and organization users of the Microsoft Office Suite become application specialists using the above software packages. Students will learn desktop application operating skills to meet globally recognized standards.

Program Outcomes

Graduates will be able to:

- Use the Microsoft Word 2010 software application to effectively create documents, newsletters, research papers, and create mail merge functions;
- Use the Microsoft Access 2010 software application to effectively create databases, database objects, reports, queries, forms, and macros;
- Use the Microsoft PowerPoint 2010 software application to effectively create advanced graphic presentations and handouts;
- Use the Microsoft Office 2010 software application 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;
- Use the Microsoft Excel 2010 software application to effectively create advanced spreadsheets, charts, graphs, and analyses using multiple advanced formulas and functions.

Special Program Requirements

Students entering this program must also take the prerequisite course COMP1109 – Introduction to Operating Systems.

Certification

MOS – Microsoft Office Specialist

Microsoft Office Specialist Certificate Curriculum

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

CRIMINAL JUSTICE

Career Description

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.

Program Information

Mandated training and education leading to state licensure as a peace officer.

Program Outcomes

Graduates will be able to:

- 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;
- Understand the importance of ethics and ethical behavior in law enforcement.

Special Program Requirements

Students must have the Emergency Medical Responder certification (or higher) and the card must be valid at the time of the Post Board Exam.

Students must meet the following conditions in order to graduate:

- At a minimum, students must achieve a "C" or higher in courses listed in the program.
- Cumulative Grade Point Average Requirement: 2.0 GPA or higher.
- Residency Requirement: For programs exceeding 60 credits, students must complete (20) of their credits at Central Lakes College.

Admissions

Program Admissions Requirements:

- Background Check: 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.
- MMPI: Students must also complete the Minnesota Multiphasic Personality Inventory (MMPI) with a psychologist approved by the Program Coordinator prior to admission into the program. Please see the Criminal Justice Coordinator for further information on these requirements.

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.

Career Titles

Police Officer, Deputy Sheriff, Corrections Officer, Parole Officer, Probation Officer.

CRIMINAL JUSTICE**Criminal Justice
A.A.S. Curriculum****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 Preparation	.....	(4 cr)
CRJU 2140	Law Enforcement & Behavioral Science	.....	(3 cr)

Total 26 credits

Students must choose a minimum of 30 credits from the following list:

CRJU 1106	Corrections & Probation	.....	(3 cr)
CRJU 1108	Community Corrections	.....	(3 cr)
CRJU 1109	Report Writing	.....	(3 cr)
CRJU 2110	Topics in Criminal Justice	.....	(3 cr)
CRJU 2112	Ballistic & 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 2150	Constitutional Law & Justice System	.....	(3 cr)
CRJU 2311	Basic Firearms	.....	(1 cr)
CRJU 2399	Seminar in Police Administration	.....	(3 cr)
EMTS 1504	Emergency Medical Technician Basic	.....	(7 cr)
EMTS 1505	First Responder	.....	(3 cr)
PHED 1525	Personal Protection Awareness	.....	(2 cr)
PSYC 2421	General Psychology	.....	(4 cr)
SPAN 1401	Beginning Spanish I	.....	(4 cr)
SPAN 1402	Beginning Spanish II	.....	(4 cr)

Criminal Justice Skills Courses (12 credits)

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)

Total 30 credits**General Education**

ENGL 1410	Composition I	.....	(4 cr)
SOCL 2405	Criminology	.....	(3 cr)
SOCL 2481	Race, Ethnicity & Oppression	.....	(3 cr)
Additional three (3) credits from MnTC courses			(3 cr)

Choose one (1) of the following:

AMSL 2420	Deaf Culture	.....	(3 cr)
SPAN 2420	Many Faces of Mexico	.....	(3 cr)

Total 16 credits**GRADUATION REQUIREMENT 72 CREDITS**

*These courses required for Minnesota P.O.S.T. licensing must be completed within 3 years of starting the degree.

**These courses must be completed prior to or within the first semester of SKILLS.

**Criminal Justice Certificate
Curriculum****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 Preparation	.....	(4 cr)
CRJU 2140*	Law Enforcement & Behavioral Science	.....	(3 cr)

Total 26 credits**GRADUATION REQUIREMENT 26 CREDITS**

*Denotes Prerequisite

**Courses required for Minnesota P.O.S.T. licensing must be completed within three (3) years.

CRIMINALISTICS

Career Description

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.

Program Information

Mandated training and education leading to state licensure as a peace officer.

Program Outcomes

Graduates will be able to:

- 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;
- Understand the importance of ethics and ethical behavior in law enforcement.

Transfer Opportunities

This Program has an articulation agreement with one or more College(s)/University(ies). For more information on articulation agreements, visit www.mntransfer.org.

Articulation with the private university consortium in St. Paul, MN and Bemidji State University. Other MnSCU colleges and universities conduct a student-by-student evaluation regarding transfer of courses and degree.

Career Titles

Police Officer, Deputy Sheriff, Corrections Officer, Parole Officer, Probation Officer.

Criminalistics A.S. Curriculum

Program Course Requirements

CRJU 1101*	Criminal Justice	.....	(3 cr)
CRJU 2108*	Criminal Investigations	.....	(3 cr)
CRJU 2112*	Ballistic & Firearms Identification	....	(4 cr)
CRJU 2116*	Science of Fingerprints	.....	(4 cr)
CRJU 2118*	Criminal Justice Photography	.....	(4 cr)
CRJU 2124*	General Evidence & Identification Preparation	.....	(4 cr)
CRJU 2135*	Internship	.....	(2 cr)
CRJU 2311	Basic Firearms	.....	(1 cr)

Total 25 Credits

General Education

CHEM 1424	Chemical Principles I	.....	(5 cr)
CHEM 1425	Chemical Principles II	.....	(5 cr)
CHEM 2472	Organic Chemistry I	.....	(5 cr)
ENGL 1410	Composition I	.....	(4 cr)
PHYS 1401	College Physics I	.....	(4 cr)
SPCH 2421	Intercultural Communications	.....	(3 cr)

9 additional credits are required from goal areas 4-10 of the MN Liberal Arts Transfer Curriculum.

These credits must be taken in 4 different goal areas.

PHIL 1421	Critical Thinking	.....	(3 cr) Goal 2 & 9
SOCL 2481	Race, Ethnicity & Oppression	.....	(3 cr) Goal 5 & 7
CHEM 1410	Environmental Chemistry	.....	(3 cr) Goal 3 & 10

Total 35 Credits

GRADUATION REQUIREMENT 60 CREDITS

*These courses are required for Minnesota P.O.S.T. licensing.

LAW ENFORCEMENT SKILLS

Career Description

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.

Program Outcomes

Graduates will be able to:

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

Special Program Requirements

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

1. Residency Requirement: students must complete one-third (5) of their credits at Central Lakes College.
2. College cumulative GPA of 2.0 or higher.
3. Must have approval from the CLC PPOE in order to graduate from this program.

Accreditation

Peace Officer Standards and Training

Admissions

Program Admissions Requirements:
(Please see the Criminal Justice Coordinator for information.)

1. Background Check: 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.
2. MMPI: Students must also complete the

Minnesota Multiphasic Personality Inventory (MMPI) with a Psychologist approved by the Program Coordinator prior to admission into the program.

3. 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.

4. Must have PPOE Coordinator Approval prior to being accepted into this program.

Career Titles:

State Patrol Trooper, Police Officer, Sheriff's Deputy, Corrections Officer, Probation Officer, Department of Natural Resources Enforcement Officer, Criminal Investigator, Crime Scene Technician, Parole Officer, School Resource Officer, Chief of Police, Sheriff.

Law Enforcement Skills

Certificate Curriculum

Program Course Requirements

CRJU 2124	General Evidence and Identification Preparation	..... (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)

GRADUATION REQUIREMENT 16 CREDITS

NATURAL RESOURCES LAW ENFORCEMENT

Career Description

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.

Program Outcomes

Graduates will be able to:

- 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;
- Understand the importance of ethics and ethical behavior in law enforcement.

Special Program Requirements

Students must be able to complete 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. Students must have the Emergency Medical Responder certification (or higher) and the card must be valid at the time of the Post Board Exam.

Students must meet the following conditions in order to graduate:

1. At a minimum students must achieve a grade of “C” or higher in courses listed in the program. College Cumulative Grade Point Average Requirement: 2.0 GPA or higher.
2. Residency Requirement: For programs exceeding 60 credits, students must complete (20) of their credits at Central Lakes College.

Admissions

Program Admissions Requirements:

(Please see the Criminal Justice Coordinator for further information.)

1. Background Check: Students must complete and pass a background check prior to being admitted into the program. This background check must be completed prior to the first day of classes.
2. MMPI: Students must also complete the Minnesota Multiphasic Personality Inventory (MMPI) with a Psychologist approved by the Program Coordinator prior to admission into the program.

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.

Career Titles

Conservation Officer

NATURAL RESOURCES LAW ENFORCEMENT**Natural Resources
Law Enforcement****A.A.S. Curriculum****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 NR 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)

Required Total 35 credits**Additional Required Courses****Choose one of the following tracks:**

Professional Peace Officer's License track:

CRJU 2114**	Traffic Law	.....	(3 cr)
CRJU 2124	General Evidence and Identification Preparation	.....	(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)

Choose one of the following courses:

NATR 1120	Dendrology	.....	(3 cr)
NATR 1140	Limnology	.....	(3 cr)
NATR 1200	Introduction to Natural Resources	...	(3 cr)
NATR 2130*	Wildlife Management	.....	(3 cr)
NATR 2140*	Fisheries Management	.....	(3 cr)

Total 22 credits**Non-Licensure Track:**

NATR 1112	Land Measurement	.....	(3 cr)
NATR 1120	Dendrology	.....	(3 cr)
NATR 1140	Limnology	.....	(3 cr)
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)

Total 20 credits**General Education**

Students must complete the requirements listed in the AAS Degree/General Education Transfer Curriculum document.

BIOL 2415	General Ecology	.....	(4 cr)
ENGL 1410	Composition I	.....	(4 cr)
SOCL 2405	Criminology	.....	(3 cr)
SOCL 2481	Race, Ethnicity and Oppression	.....	(3 cr)

Choose one (1) of the following:

AMSL 2420	Deaf Culture	.....	(3 cr)
SPAN 2420	Many Faces of Mexico	.....	(3 cr)

Total 17 credits**GRADUATION REQUIREMENT 72 CREDITS**

*Denotes Prerequisites

**These courses must be completed prior to SKILLS.

NOTE: Students must have the Emergency Medical Responder certification (or higher) and the card must be valid at the time of the Post Board Exam.

Individual semester plans are determined between instructor and student to best meet the student's needs.

ADVANCED CNC MACHINE TOOL TECHNOLOGY**Career Description**

Computer numerically controlled machine tool programmers develop programs to control the machining or processing of metal or plastic parts by automatic machine tools, equipment or systems.

Program Information

In the Advanced CNC Machine Tool Technology Certificate students learn advanced CNC milling and turning operations using computer-aided-drafting and design software. Instruction takes place in a well-equipped lab for a hands-on, practical experience.

Program Outcomes

Graduates will be able to:

- 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;
- Apply effective communication and interpersonal skills in machining industry.

Special Program Requirements

Students must meet the following conditions in order to graduate:

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

Accreditation

The Machine Tool Technology Program received official designation as a National Institute for Metalworking Skills Accredited Training in 2002.

Admissions

Students must have Machine Operator Certificate or comparable machinist work experience prior to beginning the program.

Career Titles

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.

Advanced CNC Machine Tool Technology Certificate Curriculum**Program Course Requirements**

MTRD 2141* Geometric Tolerancing	(1 cr)
MTRD 2144* Advanced CAD/CAM	(2 cr)
MTRD 2145* Advanced CNC Milling Operations	(3 cr)
MTRD 2147* Advanced CNC Turning Operations	(2 cr)
RAST 1104 Introduction to Automation	(2 cr)
Total 10 Credits	

GRADUATION REQUIREMENT 10 CREDITS

*Denotes Prerequisites

ADVANCED TOOL & DIE/MOLD MAKING

Career Description

The tool & die/mold maker does precision creation and modification of metal and plastic parts.

Program Information

In the Advanced Tool & Die/Mold Making Certificate students learn advanced die and mold making operations using wire electrical discharge machines and die/mold making machine tools. Instruction takes place in a well-equipped lab for a hands-on, practical experience.

Program Outcomes

Graduates will be able to:

- 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;
- Create, design and construct tool and die/molds to manufacturer's specifications;
- Apply effective communication and interpersonal skills in machining industry.

Special Program Requirements

Students must meet the following conditions in order to graduate:

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

Admissions

Students must have a Machine Operator Certificate or comparable machinist work experience prior to beginning the program.

Career Titles

Examples of careers titles in this field include machinist tool and die, precision instrument maker, and tool maker, tool die maker, die maker, jig and fixture builder, jig and fixture repairer, tool repairer, tool and die machinist, tool and die maker, mold maker.

Advanced Tool & Die/Mold Making Certificate

Curriculum

Program Course Requirements

MTRD 2141* Geometric Tolerancing (1 cr)

MTRD 2180* Tool & Die/Mold Making Theory (2 cr)

MTRD 2182* Tool & Die/Mold Making CAD/CAM . . (2 cr)

MTRD 2184* Tool & Die/Mold Making Lab. (5 cr)

Total 10 Credits

GRADUATION REQUIREMENT 10 CREDITS

*Denotes Prerequisites

APPLIED ENGINEERING TECHNOLOGY

Career Description

Engineering technicians use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance. Engineering Technicians combine knowledge of mechanical engineering technology with knowledge of electrical and electronic circuits to design, develop, test, and manufacture electronic and computer-controlled mechanical systems, such as robotic assembly machines.

Program Information

The two-year program provides an application-oriented, electronic/manufacturing background, extensive hands-on laboratory experience, and the use of standard and specialized test equipment. This unique degree program is designed to convey relevant knowledge and industry skills needed to be job-ready in the high-tech workplace.

Program Outcomes

Graduates will be able to:

- 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 manufacturing process procedures;
- Utilize statistical process control software and analyze results;
- Calculate return of investment (ROI) of automated equipment.

Special 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 at CLC must be at least 2.0.
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted towards the technical core of the diploma or degree must be at least 2.0.
3. Residency Requirement: students must complete one third of their credits at Central Lakes College.

Transfer Opportunities

Bemidji State University

Career Titles

Process engineering technician, engineering support specialist, process controls engineer, manufacturing engineering technician.

Applied Engineering Technology A.A.S. Curriculum

Program Course Requirements

First Year - Fall Semester

MTRD 1130	Intro to Engineering Graphics	.....	(2 cr)
RAST 1104	Introduction to Automation	.....	(2 cr)
RAST 1109	Computers in Industry	.....	(2 cr)
RAST 1101	Industrial Electronics I	.....	(3 cr)
RAST 1111	Industrial Electronics Lab I	.....	(2 cr)
RAST 1110	Intro to Manufacturing	.....	(2 cr)
General Education	.....		(3 cr)

Total - 16 Credits

Spring Semester

MATH 1470	College Algebra	.....	(3 cr)
RAST 1102	Industrial Electronics II	.....	(3 cr)
RAST 1212	Industrial Electronics Lab II	.....	(2 cr)
RAST 1103*	Motors & Drives	.....	(3 cr)
RAST 1113*	Motors & Drives Lab	.....	(3 cr)
RAST 1206*	Programmable Logic Controllers I	.....	(3 cr)

Total - 17 Credits

Second Year - Fall Semester

ENGR 1500	Introduction to Engineering	.....	(2 cr)
MTRD 1265	CNC Programming & Process Planning	.....	(2 cr)
PHYS 1401*	College Physics I	.....	(4 cr)
RAST 2105*	Transducers	.....	(2 cr)
RAST 2165*	Fluid Power	.....	(2 cr)
RAST 2355*	Programmable Logic Controllers II	.....	(2 cr)

Total - 14 Credits

Spring Semester

COMP 2222	Intro to Visual Basics & Scripting	.....	(3 cr)
WELD 1100	Intro to Welding	.....	(2 cr)
General Education	.....		(8 cr)

Total - 13 Credits

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

AUTOMATION TECHNOLOGIES

Career Description

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.

Program Information

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

Graduates will be able to:

- 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.

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.

Career Titles

Electronics repair technician, electronic testing technician, electrical and electronic installer.

Automation Technologies Certificate Curriculum

Program Course Requirements

CMAE 1502	Technical Mathematics	.....	(3cr)
CMAE 1506	Introduction to Computer Applications	.....	(2cr)
CMAE 1510	Print Reading	.....	(2cr)
CMAE 1514	MSSC Safety	.....	(2cr)
CMAE 1518	MSSC Manufacturing Processes & Production	.....	(2cr)
CMAE 1522	MSSC Quality Practice & Measurement	.....	(2cr)
CMAE 1526	MSSC Maintenance Awareness	.....	(2cr)
CMAE 1550	DC Power	.....	(3cr)
CMAE 1552	AC Power	.....	(3cr)
CMAE 1554	Digital Electronics	.....	(3cr)
CMAE 1556	Analog Circuits	.....	(3cr)
CMAE 1558	Motor Controls	.....	(3cr)
Total - 30 Credits			

GRADUATION REQUIREMENT 30 CREDITS

ENGINEERING

Career Description

Engineering appeals to students that enjoy the challenge of learning how things work and enjoy using this knowledge to improve the world in which they live. They are creative thinkers that enjoy design activities. They like hands-on activities and building things. Because of the bewildering variety of engineering fields, a survey course, titled Introduction to Engineering, is recommended to acquaint students with opportunities in this diverse field of study.

Program Information

The survey course in engineering is the only course with no prerequisites. The remaining engineering courses are sophomore level courses requiring completion of two semesters of Calculus (MATH 1477-1478) and Engineering Physics (ENGR 1411).

Transfer Opportunities

This Program has an articulation agreement with one or more College(s)/University(ies). For more information on articulation agreements, please visit www.mntransfer.org. Central Lakes College offers an Engineering Associates of Science (A.S.) Degree that is designed to lead to a bachelor's degree in engineering at a four-year university. These credits transfer in full through articulation agreements with all area engineering schools. CLC students most often transfer to the University of Minnesota (Minneapolis or Duluth), North Dakota State University (NDSU), the University of North Dakota (UND), Mankato State University (MSU), and St. Cloud State University (SCSU).

Career Titles

Some common career titles of this field are engineer, patent attorney and chief executive officer (CEO).

Engineering A.S. Degree Curriculum

Program Course Requirements

ENGR 1500 Introduction to Engineering	.....	(2 cr)
PHYS 1411 Classical Physics I	.....	(5 cr)
PHYS 1412 Classical Physics II	.....	(5 cr)

Students must take an additional 17 credits from the following list.

Note: The courses students select in this area may be dependent upon the college/university and major they choose.

BIOL 1431 General Biology I	.....	(5 cr)
CHEM 1425 Chemical Principles II	.....	(5 cr)
ECON 2401 Principles of Economics-Macro	.....	(3 cr)
ECON 2402 Principles of Economics-Micro	.....	(3 cr)
ENGR 1560 Digital Logic Design	.....	(3 cr)
ENGR 2547 Statics	.....	(3 cr)
ENGR 2548 Dynamics	.....	(3 cr)
ENGR 2549 Mechanics of Materials	.....	(3 cr)
ENGR 2569 Circuits Analysis I	.....	(4 cr)
ENGR 2570 Circuits Analysis II	.....	(3 cr)
MATH 2457* Linear Algebra	.....	(3 cr)
MATH 2458* Multivariable Calculus	.....	(4 cr)
MATH 2459* Differential Equations	.....	(4 cr)

Total 29 Credits

General Education

ENGL 1410 Composition I	.....	(4 cr)
CHEM 1424 Chemical Principles I	.....	(5 cr)
MATH 1477 Calculus I	.....	(5 cr)
MATH 1478 Calculus II	.....	(5 cr)

Students must complete a minimum of 12 credits from any three (3) of the following goals of the MN General Education Transfer Curriculum: 5, 6, 7, 8, 9, or 10.

Note: The courses students select in this area may be dependent upon the college/university and major they choose.

Total 31 Credits

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

MACHINE TECHNOLOGY CERTIFICATE

Career Description

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.

Program Information

This certificate provides 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.

Program Outcomes

Graduates will be able to:

- 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.

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.

Career Titles

Machine tool operator, tool operator, production worker, machine setter or tender.

Machine Technology Certificate Curriculum

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 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 & Tolerancing	.....	(2 cr)

Total 30 Credits

GRADUATION REQUIREMENT 30 CREDITS

MACHINE TOOL TECHNOLOGY

Career Description

Computer numerically controlled 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.

Program Information

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 A.A.S. 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

Graduates will be able to:

- 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;
- Apply effective communication and interpersonal skills in machining industry.

Special 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 at CLC must be at least 2.0.
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted towards the technical core of the diploma or degree must be at least 2.0.
3. Residency Requirement: students must complete one third of their credits at Central Lakes College.

Accreditation

The Machine Tool Technology Program received official designation as a National Institute for Metalworking Skills Accredited Training in 2002.

Career Titles

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.

MACHINE TOOL TECHNOLOGY**Machine Tool Technology****A.A.S. Curriculum****Program Course Requirements****First Year - Fall Semester**

MATH 1500	Applied Mathematics	.....(3 cr)
MTRD 1130	Intro to Engineering Graphics	.....(2 cr)
MTRD 1160	CNC Setup & Operation	.....(4 cr)
MTRD 1215	Intro to Milling Operations	.....(3 cr)
MTRD 1221	Intro to Lathe Operations	.....(2 cr)
MTRD 1265	CNC Programming & Process Planning	.....(2 cr)
RAST 1110	Introduction to Manufacturing	.....(2 cr)

Total 18 Credits**Spring Semester**

MTRD 2154	CNC Operations	.....(3 cr)
MTRD 2160	CAD/CAM	.....(3 cr)
MTRD 2162	Workholding & Fixturing	.....(3 cr)
MTRD 2221	CNC Milling Operations	.....(5 cr)
MTRD 2223	CNC Turning Operations	.....(2 cr)
RAST 1104	Introduction to Automation	.....(2 cr)

Total 18 Credits**Summer Semester**

MTRD 2141	Geometric Tolerancing	.....(1 cr)
MTRD 2144	Advanced CAD/CAM	.....(2 cr)
MTRD 2145	Advanced CNC Milling Operations	.....(3 cr)
MTRD 2147	Advanced CNC Turning Operations(2 cr)

Total 8 Credits**Second Year - Fall Semester**

General Education	(16 cr)
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Total 16 Credits

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

Machine Tool Technology**Diploma Curriculum****Program Course Requirements****First Year - Fall Semester**

MATH 1500	Applied Mathematics	.....(3 cr)
MTRD 1130	Intro to Engineering Graphics	.....(2 cr)
MTRD 1160	CNC Setup & Operation	.....(4 cr)
MTRD 1215	Intro to Milling Operations	.....(3 cr)
MTRD 1221	Intro to Lathe Operations	.....(2 cr)
MTRD 1265	CNC Programming & Process Planning	.....(2 cr)
RAST 1110	Introduction to Manufacturing	.....(2 cr)

Total 18 Credits**Spring Semester**

MTRD 2154	CNC Operations	.....(3 cr)
MTRD 2160	CAD/CAM	.....(3 cr)
MTRD 2162	Workholding & Fixturing	.....(3 cr)
MTRD 2221	CNC Milling Operations	.....(5 cr)
MTRD 2223	CNC Turning Operations	.....(2 cr)
RAST 1104	Introduction to Automation	.....(2 cr)

Total 18 Credits**Summer Semester**

MTRD 2141	Geometric Tolerancing	.....(1 cr)
MTRD 2144	Advanced CAD/CAM	.....(2 cr)
MTRD 2145	Advanced CNC Milling Operations	.....(3 cr)
MTRD 2147	Advanced CNC Turning Operations	.....(2 cr)

Total 8 Credits

GRADUATION REQUIREMENT 44 CREDITS

*Denotes Prerequisites

MACHINE TOOL TECHNOLOGY

Tool & Die/Mold Making

Career Description

Tool and die mold makers create and modify metal or plastic parts using 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.

Program Information

In the Tool & Die/Mold Making program students learn how to use hand tools, laths and mills, computer-aided-drafting and design software, power machinery, and computerized equipment. The A.A.S. curriculum includes geometric tolerancing, advanced tool and die/mold making, CAD/CAM, and training using wire electrical discharge machines and die/mold making machine tools. Instruction takes place in a well-equipped lab for a hands-on, practical experience.

Program Outcomes

Graduates will be able to:

- 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;
- Design and construct tool and die/molds to manufacturer's specifications;
- Apply effective communication and interpersonal skills in machining industry.

Special Program Requirements

Students must meet the following conditions in order to graduate:

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

Accreditation

The Machine Tool Technology Program received official designation as a National Institute for Metalworking Skills Accredited Training in 2002.

Career Titles

Examples of careers titles in this field include machinist tool and die, precision instrument maker, tool maker, tool die maker, die maker, jig and fixture builder, jig and fixture repairer, tool repairer, tool and mold maker machinist, and mold maker.

MACHINE TOOL TECHNOLOGY**Tool & Die/Mold Making****Machine Tool Technology
Tool & Die/Mold Making
Emphasis****A.A.S. Curriculum****Program Course Requirements****First Year - Fall Semester**

MATH 1500 Applied Mathematics	(3 cr)
MTRD 1130 Intro to Engineering Graphics	(2 cr)
MTRD 1160 CNC Setup & Operation	(4 cr)
MTRD 1215 Intro to Milling Operations	(3 cr)
MTRD 1221 Intro to Lathe Operations	(2 cr)
MTRD 1265 CNC Programming & Process Planning	(2 cr)
RAST 1110 Introduction to Manufacturing	(2 cr)
Total 18 Credits	

First Year - Spring Semester

MTRD 2154 CNC Operations	(3 cr)
MTRD 2160 CAD/CAM	(3 cr)
MTRD 2162 Workholding & Fixturing	(3 cr)
MTRD 2221 CNC Milling Operations	(5 cr)
MTRD 2223 CNC Turning Operations	(2 cr)
MTRD 2180 Tool & Die/Mold Making Theory	(2 cr)
Total 18 Credits	

Summer Semester

MTRD 2141 Geometric Tolerancing	(1 cr)
MTRD 2182 Tool & Die/Mold Making CAD/CAM ..	(2 cr)
MTRD 2184 Tool & Die/Mold Making Lab	(5 cr)
Total 8 Credits	

Second Year - Fall Semester

General Education	16 Credits
Total 16 Credits	

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

**Machine Tool Technology
Tool & Die/Mold Making
Emphasis****Diploma Curriculum****Program Course Requirements****Fall Semester**

MATH 1500 Applied Mathematics	(3 cr)
MTRD 1130 Intro to Engineering Graphics	(2 cr)
MTRD 1160 CNC Setup & Operation	(4 cr)
MTRD 1215 Intro to Milling Operations	(3 cr)
MTRD 1221 Intro to Lathe Operations	(2 cr)
MTRD 1265 CNC Programming & Process Planning	(2 cr)
RAST 1110 Introduction to Manufacturing	(2 cr)
Total 18 Credits	

Spring Semester

MTRD 2154 CNC Operations	(3 cr)
MTRD 2160 CAD/CAM	(3 cr)
MTRD 2162 Workholding & Fixturing	(3 cr)
MTRD 2180 Tool & Die/Mold Making Theory	(2 cr)
MTRD 2221 CNC Milling Operations	(5 cr)
MTRD 2223 CNC Turning Operations	(2 cr)
Total 18 Credits	

Summer Semester

MTRD 2141 Geometric Tolerancing	(1 cr)
MTRD 2182 Tool & Die/Mold Making CAD/CAM ..	(2 cr)
MTRD 2184 Tool & Die/Molding Making Lab	(5 cr)
Total 8 Credits	

GRADUATION REQUIREMENT 44 CREDITS

*Denotes Prerequisites

MANUFACTURING MAINTENANCE TECHNICIAN**Career Description**

Manufacturing maintenance technicians are responsible for performing entry-level skills such as cleaning, oiling and maintaining machine tools to complex troubleshooting and repair techniques on manufacturing equipment and electrical/electronic or mechanical systems. Technicians repair or make new parts for existing machinery. Skilled manufacturing maintenance technicians are needed to keep the complex industrial machinery of today's manufacturing facilities running smoothly. Their work keeps factories productive, protects the safety of machine operators, and makes sure that the final product is perfect.

Program Information

In the Manufacturing Maintenance Technician Diploma Program students learn skills in electronics, mechanical systems, and troubleshooting to become qualified to repair and maintain computerized equipment. Students learn how to repair/replace broken or malfunctioning components, perform diagnostic tests, adjust and calibrate equipment and machinery, clean and lubricate equipment or machinery and adjust equipment and reset or calibrate sensors and controls. Students receive the comprehensive foundation needed to work in industrial plants. Instruction takes place in a well-equipped lab for a hands-on, practical experience.

Program Outcomes

Graduates will be able to:

- 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;
- Troubleshoot complex mechanical systems.

Special 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 at CLC must be at least 2.0.
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted towards the technical core of the diploma or degree must be at least 2.0.
3. Residency Requirement: students must complete one third of their credits at Central Lakes College.

Accreditation

The Machine Tool Technology Program at Central Lakes College received official designation as a National Institute for Metalworking Skills Accredited Training in 2002.

Career Titles

Examples of career titles in this field include manufacturing maintenance technician, development mechanic, experimental and electrical mechanic, maintenance machinist, maintenance specialist, maintenance technician, and trouble shooter.

MANUFACTURING MAINTENANCE TECHNICIAN**Manufacturing Maintenance
Technician Diploma Curriculum****Program Course Requirements****First Year - Fall Semester**

MATH 1500	Applied Mathematics	.....(3 cr)
MTRD 1130	Intro to Engineering Graphics	..... (2cr)
MTRD 1160	CNC Setup and Operation	.....(4 cr)
MTRD 1215	Intro to Milling Operations	.....(3 cr)
MTRD 1221	Intro to Lathe Operations	.....(2 cr)
RAST 1110	Intro to Manufacturing	.....(2 cr)
Total 16 credits		

First Year - Spring Semester

MTRD 2160	CAD/CAM	.....(3 cr)
MTRD 2162	Workholding and Fixturing	.....(3 cr)
MTRD 2221	CNC Milling Operations	.....(5 cr)
MTRD 2223	CNC Turning Operations	.....(2 cr)
RAST 1109	Computers in Industry	.....(2 cr)
Total 15 Credits		

Second Year - Fall Semester

RAST 1101	Industrial Electronics I	.....(3 cr)
RAST 1111	Industrial Electronics Lab I	.....(2 cr)
RAST 1104	Introduction to Automation	.....(2 cr)
General Education		.....(3 cr)
Electives		.....(5 cr)
Total 15 Credits		

Second Year - Spring Semester

RAST 1102*	Industrial Electronics II	.....(3 cr)
RAST 1103*	Motors & Drives	.....(3 cr)
RAST 1113*	Motors & Drives Lab	.....(3 cr)
RAST 1206*	Programmable Logic Controllers	.....(3 cr)
RAST 1212*	Industrial Electronics Lab II	.....(2 cr)
Total 14 Credits		

Summer Session

RAST 2106*	Industrial Electronics III	.....(2 cr)
RAST 2116	Industrial Electronics Lab III	.....(2 cr)
Total 4 Credits		

GRADUATION REQUIREMENT 64 CREDITS

*Denotes Prerequisites

MANUFACTURING TECHNICIAN**Career Description**

The machine shop technician does basic precision and modifications of metal parts. Technicians use machines to make various parts for the repair, design or manufacturing of products. Most jobs are in manufacturing settings and in a variety of industries, including aerospace, medical and paper.

Program Information

Students in the Manufacturing Technician Certificate will learn how to use hand tools, lathes and mills, power machinery, and computerized equipment.

Program Outcomes

Graduates will be able to:

- Read and interpret a mechanical working drawing;
- Perform precision measurement, layout, drilling, sawing, turning, milling and precision grinding safely;
- Perform shop calculations;
- Apply effective communication and interpersonal skills in machining industry.

Special 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 at CLC must be at least 2.0.
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted towards the technical core of the diploma or degree must be at least 2.0.
3. Residency Requirement: students must complete one third of their credits at Central Lakes College.

Accreditation

The Machine Tool Technology Program at Central Lakes College received official designation as a National Institute for Metalworking Skills Accredited Training in 2002.

Career Titles

Examples of career titles in this field include entry level machine operator, milling operator, lathe operator, numerical control machine operator

Manufacturing Technician Certificate Curriculum**Program Course Requirements****First Year - Fall Semester**

MATH 1500	Applied Mathematics	.....	(3 cr)
MTRD 1130	Intro to Engineering Graphics	.....	(2 cr)
MTRD 1160	CNC Setup and Operation	.....	(4 cr)
MTRD 1215	Intro to Milling Operations	.....	(3 cr)
MTRD 1221	Intro to Lathe Operations	.....	(2 cr)
MTRD 1265	CNC Programming and Process Planning	.....	(2 cr)
RAST 1110	Introduction to Manufacturing	.....	(2 cr)

Total 18 Credits

GRADUATION REQUIREMENT - 18 CREDITS

MANUFACTURING WELDING TECHNICIAN

Career Description

Skilled welding, soldering, and brazing workers generally plan work from drawings or specifications, or they use their knowledge of fluxes and base metals to analyze the parts to be joined. Highly skilled welders work with a wide variety of materials in addition to steel, such as titanium, aluminum, or plastics.

Program Information

Students in the Manufacturing Welding Technician Diploma Program will earn credits at both the Brainerd and Staples campuses. Courses in blueprint reading, shop mathematics, and mechanical drawing are among the essential requirements for obtaining skills sought by employers. Central Lakes College offers a comprehensive foundation to get you started as a technician suited to work in any industrial plant where precision, efficiency, and safety are valued. Instruction takes place in a well-equipped shop for a hands-on, practical experience.

Program Outcomes

Graduates will be able to:

- Read and interpret a mechanical and fabrication design and working drawing;
- Perform precision measurement, layout, drilling, sawing, cutting, welding, turning, milling, and precision grinding safely;
- Program, setup and operate a computer numerical control (CNC) turning center and machining center;
- 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;
- Demonstrate effective written and oral communication skills.

Accreditation

The Machine Tool Technology Program at CLC received official designation as a National Institute for Metalworking Skills Accredited Training in 2002.

Certification

Job opportunities and advancement can be enhanced by becoming certified in a particular machining skill. The National Institute for Metalworking Skills has developed standards for machine setters, operators, and metal tenders. After taking a course approved by the organization and passing a written exam and performance requirement, the worker is issued a credential that signifies competence in a specific machining operation.

MANUFACTURING WELDING TECHNICIAN**Manufacturing Welding
Technician Diploma
Curriculum****Program Course Requirements****First Year - Brainerd Courses****First Semester**

CCST 1510 College Success Skills

OR

CCST 1530 Employment Strategies (3 cr)

MATH 1500 Applied Math (3 cr)

WELD 1100 Intro to Welding (2 cr)

WELD 1101 Shielded Metal ARC Welding (4 cr)

WELD 1109 Shearing, Punching
& Cutting Systems (1 cr)

WELD 1111 Blueprint Reading (2 cr)

Total 15 Credits**Second Semester**

MASE 1106 Intro to Electronics (2 cr)

WELD 1115* Gas Tungsten ARC Welding (4 cr)

WELD 1128* Metal Fabrication (3 cr)

WELD 1133* Advanced Welding Processes (4 cr)

WELD 1140 Trade Knowledge (2 cr)

Total 16 Credits**Second Year - Staples Courses****First Semester**

MTRD 1130 Intro to Engineering Graphics (2 cr)

MTRD 1160 CNC Setup and Operation (4 cr)

MTRD 1215 Intro to Milling Operations (3 cr)

MTRD 1221 Intro to Lathe Operations (2 cr)

MTRD 1265 CNC Programming
and Process Planning (2 cr)

RAST 1110 Intro to Manufacturing (2 cr)

Total 15 Credits**Second Semester**

MTRD 2160* CAD/CAM (3 cr)

MTRD 2162* Workholding and Fixturing (3 cr)

MTRD 2221* CNC Milling Operations (5 cr)

MTRD 2223* CNC Turning Operations (2 cr)

RAST 1104 Introduction to Automation (2 cr)

Total 15 Credits

GRADUATION REQUIREMENT - 60 CREDITS

*Denotes Prerequisites

MECHATRONICS

Career Description

Mechatronics combines the knowledge of mechanical technology with knowledge of electrical and electronic circuits. Electro-mechanical technicians install, troubleshoot, repair, and upgrade electronic and computer-controlled mechanical systems, such as robotic assembly machines. Technicians in this field must have skills in electricity, electronics, instrumentation, programmable logical controllers, microprocessors, automation and robotics.

Program Information

In the Mechatronics Diploma program students prepare for entry-level technician positions in the areas of robotics, industrial manufacturing, instrumentation, electronics, and process control automation. Coursework covers industrial electronics, electrical motor control, AC/DC electronics, process control, computer-aided design, programmable controllers, computers, manufacturing, transducers, and fluid power. Instruction takes place in a well-equipped lab for a hands-on, practical experience.

Program Outcomes

Graduates will be able to:

- 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;
- Test and debug complex automated equipment to machine specifications;
- Troubleshoot complex electrical circuits and machine control programs.

Special 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 at CLC must be at least 2.0.

2. College Technical Core GPA Requirement: cumulative GPA of credits attempted towards the technical core of the diploma or degree must be at least 2.0.
3. Residency Requirement: students must complete one-third (13) of their credits at Central Lakes College.

Career Titles

Examples of career titles in this field include electro-mechanical technician, industrial automation technician, electronics technician, maintenance technician, field service technician, instrumentation and engineering technician and mechatronics engineer.

Mechatronics Diploma Curriculum

Fall Semester

MATH 1500	Applied Mathematics	.....	(3 cr)
MTRD 1130	Intro to Engineering Graphics	.....	(2 cr)
MTRD 1264	Intro 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	Intro to Manufacturing	.....	(2 cr)
RAST 1111	Industrial Electronics Lab I	.....	(2 cr)

Total - 18 Credits

Spring Semester

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)

Total - 14 Credits

Summer Session

RAST 2106*	Industrial Electronics III	.....	(2 cr)
RAST 2116*	Industrial Electronics Lab III	.....	(2 cr)
RAST 2105*	Transducers	.....	(2 cr)
RAST 2165*	Fluid Power	.....	(2 cr)

Total - 8 Credits

GRADUATION REQUIREMENT 40 CREDITS

*Denotes Prerequisites

PRODUCTION TECHNOLOGIES

Career Description

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.

Program Information

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

Graduates will be able to:

- 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.

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.

Career Titles

Assembly line machine operator, manufacturing assembler, team assembler, assembly technician, assembly operator.

Employment Opportunities

The Minnesota Department of Employment and Economic Development long-term projections show a 2 percent increase in workers in the team assembler occupation. Team assembler would be the appropriate occupation for individuals with this certificate. Advanced manufacturing continues to be considered a high demand/high pay industry for the State of Minnesota and this certificate provides marketable skills and knowledge to entry-level employees and a provides a pathway for advancing a career.

Production Technologies Certificate Curriculum

Program Course Requirements

CMAE 1502	Technical Mathematics	.....	(3cr)
CMAE 1506	Introduction to Computer Applications	.....	(2cr)
CMAE 1510	Print Reading	.....	(2cr)
CMAE 1514	MSSC Safety	.....	(2cr)
CMAE 1518	MSSC Manufacturing Processes & Production	.....	(2cr)
CMAE 1522	MSSC Quality Practice & Measurement	.....	(2cr)
CMAE 1526	MSSC Maintenance Awareness	.....	(2cr)

Total 15 Credits

GRADUATION REQUIREMENT - 15 CREDITS

ROBOTICS/AUTOMATED SYSTEMS TECHNOLOGY**Career Description**

Robotic automated systems technicians are an integral part of modern manufacturing firms. Knowledge of robotic programming, flexible manufacturing, CAD systems, industrial communications and overall system integration is essential. Technologies such as new-generation robot controllers, sensors, and electrical control systems have created a need for highly specialized training. Career opportunities are available for robotic technicians in the building, repairing, installing, maintaining, and programming of robotic automated systems. Robotic technicians are valued by industry employers for their problem-solving skills.

Program Information

The Robotics Automated Systems Technology Program uses the curriculum of technical industry standards set forth by the Robotics Industry Association (RIA) along with a strong advisory board made up of industry leaders in the different manufacturing career areas. The program has the largest robotics automated systems lab in the upper Midwest. Students are trained on the same robots, controllers, and programming languages used by automated manufacturing companies.

Program Outcomes

Graduates will be able to:

- 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.

Special 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 at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete one-third (23) of their credits at Central Lakes College.

Accreditation

Robotics Industry Association

Transfer Opportunities

Courses in this program transfer to Bemidji State University, St. Cloud State University, and North Dakota State University.

Career Titles

Examples of career titles held by people in this field include field service technician, field service engineer, applications programmer, electrical controls engineer, automated systems technician, automated systems machine builder and production systems technician.

ROBOTICS/AUTOMATED SYSTEMS TECHNOLOGY**Robotics/Automated Systems Technology A.A.S. Curriculum Program Course Requirements****First Year - Fall Semester**

MTRD 1130	Intro to Engineering Graphics	.....	(2 cr)
MTRD 1264	Intro 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	Intro to Manufacturing	.....	(2 cr)
RAST 1111	Industrial Electronics Lab I	.....	(2 cr)
General Education		.....	(6 cr)
Total	- 21 Credits		

Spring Semester

MATH 1420	College Algebra	.....	(3 cr)
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)
General Education		.....	(3 cr)
Total	- 20 Credits		

Summer Session

RAST 2101*	Application Planning & Layout	.....	(2 cr)
RAST 2106*	Industrial Electronics III	.....	(2 cr)
RAST 2116*	Industrial Electronics Lab III	.....	(2 cr)
Total	- 6 Credits		

Second Year - Fall Semester

RAST 2105*	Transducers	.....	(2 cr)
RAST 2132*	Robotic Programming	.....	(3cr)
RAST 2151*	Robot Integration Lab	.....	(6 cr)
RAST 2165*	Fluid Power	.....	(2 cr)
RAST 2355*	Programmable Logic Controllers II	..	(2 cr)
General Education		.....	(3 cr)
Total	- 18 Credits		

Spring Semester

RAST 2154*	Robot Controller Maintenance	.....	(2 cr)
RAST 2395*	Advanced Robot Controller Programming	.....	(2 cr)
RAST 2390*	Robotics Internship	.....	(1-3 cr)
OR			
RAST 2399*	Independent Study	.....	(1-3 cr)
Total	- 5 Credits		

GRADUATION REQUIREMENT 70 CREDITS

*Denotes Prerequisites

Robotics/Automated Systems Technology Diploma Curriculum**Program Course Requirements****First Year - Fall Semester**

MATH 1500	Applied Math	.....	(3 cr)
MTRD 1130	Intro to Engineering Graphics	.....	(2 cr)
MTRD 1264	Intro to Machining Process	.....	(2 cr)
RAST 1101	Industrial Electronics I	.....	(3 cr)
RAST 1111	Industrial Electronics Lab I	.....	(2 cr)
RAST 1104	Introduction to Automation	.....	(2 cr)
RAST 1109	Computers in Industry	.....	(2 cr)
RAST 1110	Intro to Manufacturing	.....	(2 cr)
Total	- 18 Credits		

Spring Semester

General Education		.....	(3 cr)
RAST 1102*	Industrial Electronics II	.....	(3 cr)
RAST 1212*	Industrial Electronics Lab II	.....	(2 cr)
RAST 1103*	Motors and Drives	.....	(3 cr)
RAST 1113*	Motors & Drives Lab	.....	(3 cr)
RAST 1206*	Programmable Logic Controllers I	.....	(3 cr)
Total	- 17 Credits		

Summer Session

RAST 2101*	Application Planning & Layout	.....	(2 cr)
RAST 2106*	Industrial Electronics III	.....	(2 cr)
RAST 2116*	Industrial Electronics Lab III	.....	(2 cr)
Total	- 6 Credits		

Second Year - Fall Semester

RAST 2105*	Transducers	.....	(2 cr)
RAST 2132*	Robotic Programming	.....	(3cr)
RAST 2151*	Robot Integration Lab	.....	(6 cr)
RAST 2165*	Fluid Power	.....	(2 cr)
RAST 2355*	Programmable Logic Controllers II	..	(2 cr)
Total	- 15 Credits		

Spring Semester

RAST 2154*	Robot Controller Maintenance	.....	(2 cr)
RAST 2395*	Advanced Robot Controller Programming	.....	(2 cr)
RAST 2390*	Robotics Internship	.....	(1-3 cr)
OR			
RAST 2399	Independent Study	.....	(1-3 cr)
Total	- 5 Credits		

GRADUATION REQUIREMENT 61 CREDITS

*Denotes Prerequisites

ROBOTIC WELDING

Career Description

Robotic welders set up automated equipment within a robotic welding cell using safety devices, user operator systems, and welding power supplies. They also maintain welding torch equipment, edit and/or create robotic welding programs, change existing welding programs, and program welding parameters.

Program Information

The Robotic Welder 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 welding procedures, creating and editing robot welding programs, error recovery procedures, and basic maintenance of equipment including lubrication of the robot and welding fixtures.

Program Outcomes

Graduates will be able to:

- Apply proper industry safety standards;
- Apply welding and cutting safety procedures;
- Perform a variety of welding processes using appropriate equipment and setup procedures for SMAW and GMAW;
- Apply principles of basic welding fundamentals, symbols, blueprints and welding metallurgy;
- Develop correct robotic welding parameters for different welding procedures;
- Perform robotic welding controller operations and programming manual procedures;
- Create robotic welding programs;
- Upload and download existing programs;
- Modify existing welding programs;
- Robot and automated cell system error recovery procedures;
- Robotic welding cell cycle time calculations.

Robotic Welding Certificate Curriculum

Program Course Requirements

WELD 1100	Intro to Welding	.....	(2 cr)
WELD 1101	Shielded Metal ARC Welding	.....	(4 cr)
WELD 1111	Blueprint Reading	.....	(2 cr)
WELD 1117	Gas Metal ARC Welding	.....	(3 cr)
RAST 1104	Introduction to Automation	.....	(2 cr)
RAST 2134	Robotic ARC Welding	.....	(3 cr)

GRADUATION REQUIREMENT 16 CREDITS

WELDING AND FABRICATION**Career Description**

With four program options, students prepare for a career in the construction, metal fabrication, repair, service, and other metal working industries. Learn arc welding, gas metal arc welding, flux core tig, and the use of oxyacetylene hand and machine cutting equipment. In addition, students will learn to use the hand and computer numerically controlled (CNC) plasma cutting machine.

Program Information

The Welding and Fabrication Program introduces blueprint reading for welders. Upon completion of the program, students will be ready to take welding certification and job entry tests.

Program Outcomes

Graduates will be able to:

- 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 a counselor about transferability.

Career Titles

Common career titles for this field 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.

Welding & Fabrication**A.A.S. Curriculum****Program Course Requirements****First Year - Fall Semester**

CCST 1530	Employment Strategies	.....	(3 cr)
MATH 1500	Applied Math	.....	(3 cr)
WELD 1100	Intro to Welding	.....	(2 cr)
WELD 1101	Shielded Metal ARC Welding	.....	(4 cr)
WELD 1111	Blueprint Reading	.....	(2 cr)
WELD 1114	Metallurgy & Fabrication	.....	(2 cr)
WELD 1117	Gas Metal ARC Welding	.....	(3 cr)

Total - 19 Credits

Spring Semester

MASE 1106	Intro to Electronics	.....	(2 cr)
WELD 1112	Blueprint Reading II	.....	(2 cr)
WELD 1115	Gas Tungsten ARC Welding	.....	(4 cr)
WELD 1128*	Metal Fabrication	.....	(3 cr)
WELD 1132	Testing/Codes & Inspection	.....	(2 cr)
WELD 1134	Welding Qualification	.....	(2 cr)
WELD 1140	Trade Knowledge	.....	(2 cr)

Total - 17 Credits

Summer Semester

WELD 1130*	Advanced Welding Processes	.....	(4 cr)
WELD 1150	Advanced Metal Fabrication	(4 cr)

Total - 8 Credits

Second Year - Fall Semester

General Education	(16 cr)
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Total - 16 Credits

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

Welding & Fabrication**Diploma Curriculum****Program Course Requirements****Fall Semester**

CCST 1530	Employment Strategies	.....	(3 cr)
MATH 1500	Applied Math	.....	(3 cr)
WELD 1100	Intro to Welding	.....	(2 cr)
WELD 1101	Shielded Metal ARC Welding	.....	(4 cr)
WELD 1111	Blueprint Reading	.....	(2 cr)
WELD 1114	Metallurgy & Fabrication	.....	(2 cr)
WELD 1117	Gas Metal ARC Welding	.....	(3 cr)

Total - 19 Credits

Spring Semester

MASE 1106	Intro to Electronics	.....	(2 cr)
WELD 1112*	Blueprint Reading II	.....	(2 cr)
WELD 1115*	Gas Tungsten ARC Welding	.....	(4 cr)
WELD 1128*	Metal Fabrication	.....	(3 cr)
WELD 1132	Testing/Codes & Inspection	.....	(2 cr)
WELD 1134	Welding Qualification	.....	(2 cr)
WELD 1140	Trade Knowledge	.....	(2 cr)

Total - 17 Credits

Summer Semester

WELD 1130*	Advanced Welding Processes	(4 cr)
WELD 1150	Advanced Metal Fabrication	(4 cr)

Total - 8 Credits

GRADUATION REQUIREMENT 44 CREDITS

*Denotes Prerequisites

WELDING TECHNOLOGY

Career Description

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. Some welders have limited duties and perform routine jobs that have been planned and laid out. Highly skilled welders work with a wide variety of materials in addition to steel, such as titanium, aluminum, or plastics.

Program Information

Introductory courses 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

Graduates will be able to:

- 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 and skills related to welding print reading and interpreting symbols, following welding procedures, safety, metallurgy and mechanical properties of materials, and hands on experience with specific welding processes including oxyacetylene cutting and welding, shielded metal arc welding, gas metal arc welding, flux core arc welding, and gas tungsten arc welding.

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, St. Paul College. Courses are transferable within all the listed colleges.

Welding Technology Certificate Curriculum

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 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 Mat.	.....	(1 cr)

Total 30 Credits

GRADUATION REQUIREMENT 30 CREDITS

GRAPHIC DESIGN

Career Description

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 Information

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

Graduates will be able to:

- 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, copy writers, web designers, photographers, and printing companies;

- Demonstrate a respect for diversity of ideas and concepts in a group environment.

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.

Career Titles

Common career titles in this field include advertising agency designer, multimedia designer, corporate in-house designer, print designer, art director, package designer, poster/billboard designer, website designer, magazine designer, video editor, book designer, and newspaper designer.

Graphic Design

A.A.S. Curriculum

Program Course Requirements

First Year - Fall Semester

CART 1105	Concepts of Design	.....	(3 cr)
CART 1124	Corporate ID	.....	(3 cr)
CART 1134	Typography	.....	(3 cr)
PHIM 1126	Intro to Adobe CC	.....	(3 cr)
VPRO 1114	Camera Operations	.....	(3 cr)

Total - 15 credits

First Year - Spring Semester

CART 1120	Publication Design	.....	(3 cr)
CART 1122	Graphic Design Production	.....	(3 cr)
ENGL 1422	Practical Writing	.....	(3 cr)
PHIM 1128	Business of Media	.....	(3 cr)
General Education	.....		(3 cr)

Total - 15 credits

Second Year - Fall Semester

CART 2100	Graphic Design 1	.....	(3 cr)
CART 2120	Packaging	.....	(3 cr)
CART 2130	Media Production	.....	(3 cr)
CART 2132	Social Media Design	.....	(3 cr)
General Education	.....		(3 cr)

Total - 15 credits

Second Year - Spring Semester

CART 2102	Graphic Design 2	.....	(3 cr)
CART 2113	Art Direction	.....	(3 cr)
CART 2124	Portfolio Production	.....	(3 cr)
General Education	.....		(6 cr)

Total - 15 credits

GRADUATION REQUIREMENT 60 CREDITS

GRAPHIC DESIGN**Graphic Design Diploma**

Program Course Requirements

First Year - Fall Semester

CART 1105	Concepts of Design	.....(3 cr)
CART 1124	Corporate ID	.....(3 cr)
CART 1134	Typography	.....(3 cr)
PHIM 1126	Intro to Adobe CC	.....(3 cr)
VPRO 1114	Camera Operations	.....(3 cr)

Total - 15 credits**First Year - Spring Semester**

ARTS 1401	Black & White Photography I	.....(3 cr)
CART 1120	Publication Design	.....(3 cr)
CART 1122	Graphic Design Production	.....(3 cr)
ENGL 1422	Practical Writing	.....(3 cr)
OR		
ENGL 1410	Composition I	.....(4 cr)
PHIM 1128	Business of Media	.....(3 cr)

Total - 15 credits**Second Year - Fall Semester**

CART 2100	Graphic Design 1	.....(3 cr)
CART 2120	Packaging	.....(3 cr)
CART 2130	Media Production	.....(3 cr)
CART 2132	Designs in Social Media	.....(3 cr)

Total - 12 credits**Second Year - Spring Semester**

CART 2102	Graphic Design 2	.....(3 cr)
CART 2113	Art Direction	.....(3 cr)
CART 2124	Portfolio Production	.....(3 cr)
Choose 3 credits from CART,		
PHIM or VPRO courses	.....(3 cr)	

Total - 12 credits

GRADUATION REQUIREMENT 54 CREDITS

**Graphic Design - Media
Technology Diploma**

Program Course Requirements

Fall Semester

CART 1105	Concepts of Design	.....(3 cr)
CART 2130	Media Production	.....(3 cr)
CART 2132	Designs in Social Media	.....(3 cr)
PHIM 1126	Intro to Adobe CC	.....(3 cr)
VPRO 1114	Camera Operations	.....(3 cr)

Total - 15 credits**Spring Semester**

CART 1122	Graphic Design Production	.....(3 cr)
PHIM 1128	Business of Media	.....(3 cr)
Choose 10 credits from CART,		
PHIM or VPRO courses	.....(10 cr)	

Total - 16 credits

GRADUATION REQUIREMENT - 31 CREDITS

PHOTOGRAPHIC IMAGING TECHNOLOGY

Career Description

Photo imaging students develop foundational imaging and workplace skills sought by employers. The curriculum includes general and studio photography, digital file manipulation and management, lighting, photo print production, print finishing, software, video and editing, color science, and principles of sales, marketing, and customer service. The program serves a broad range of industries to include the photo and graphics industry, now called imaging. Demand for trained technical personnel is high.

Program Information

The Photographic Imaging Technology Program offers an Associate of Applied Science (A.A.S.) Degree that consists of an ambitious, technical core in imaging and components of general education. A related option, with fewer general education requirements, is the Photographic Imaging Technology Diploma Program. Finally, there is a Certificate in Matting & Framing where students develop skills in finishing and presentation of art. Students choose a program option to meet their specific career goals.

Program Outcomes

Graduates will be able to:

- Demonstrate professional responsibility toward workplace safety;
- Select and use photographic software, equipment and technologies appropriate to the task;
- Apply concepts and aesthetics to create and evaluate photographic images;
- Effectively develop proposals and organize photo shoots;
- Work as a team member demonstrating dependability, flexibility, communication and management skills;
- Model professional and ethical behavior.

Special Program Requirements

Current Windows or MAC Pro Laptop and a Digital SLR camera

Accreditation

Photo Marketing Association, International Professional Photographers Association, Digital Imaging Association, Association of Imaging Executives

Certification

Society of Photofinishing Engineers and Certified Photographic Consultant

Transfer Opportunities

Students have the opportunity to transfer into programs like marketing, management, mass communications, business and education at Bemidji State University, Minnesota State University Moorhead, Minnesota State University Mankato, North Dakota State University, and the University of Wisconsin Stout.

PHOTOGRAPHIC IMAGING TECHNOLOGY**Photographic Imaging
Technology A.A.S. Curriculum****Program Course Requirements****First Year - Fall Semester**

CART 1105	Concepts of Design	.....(3 cr)
PHIM 1114	Digital Darkroom	.....(4 cr)
PHIM 1126	Introduction to Adobe CC	.....(3 cr)
PHIM 1172	Photo Printing Systems	.....(2 cr)
VPRO 1114	Camera Operations	.....(3 cr)
General Education		.....(3 cr)
Total 18 Credits		

Spring Semester

PHIM 1119	Matting and Framing	.....(4 cr)
PHIM 1128	Business of Media	.....(3 cr)
PHIM 1174	Studio Photographics	.....(3 cr)
PHIM 1176	Visual Relationships	.....(3 cr)
General Education		.....(3 cr)
Total 16 Credits		

Second Year - Fall Semester

PHIM 2110	Color Management Systems	.....(4 cr)
PHIM 2112	Fine Art Printing	.....(4 cr)
PHIM 2286	Outdoor Photography	.....(3 cr)
General Education		.....(6 cr)
Total 17 Credits		

Spring Semester

PHIM 2111	Art Direction	.....(4 cr)
PHIM 2175	Photographic Certification & Business	.....(4 cr)
PHIM 2276	Presentations	.....(3 cr)
PHIM 2296	Corporate Communication	.....(4 cr)
General Education		.....(3 cr)
Total 18 Credits		

GRADUATION REQUIREMENT 69 CREDITS

**Photographic Imaging
Diploma Curriculum****Program Course Requirements****First Year - Fall Semester**

CART 1105	Concepts of Design	.....(3 cr)
PHIM 1114	Digital Darkroom	.....(4 cr)
PHIM 1126	Introduction to Adobe Creative Cloud	.....(3 cr)
PHIM 1172	Photo Printing Systems	.....(2 cr)
VPRO 1114	Camera Operations	.....(3 cr)
Total 15 Credits		

Spring Semester

PHIM 1119	Matting and Framing	.....(4 cr)
PHIM 1128	Business of Media	.....(3 cr)
PHIM 1174	Studio Photographics	.....(3 cr)
PHIM 1176	Visual Relationships	.....(3 cr)
General Education		.....(3 cr)
Total 16 Credits		

Second Year - Fall Semester

PHIM 2110	Color Management Systems	.....(4 cr)
PHIM 2112	Fine Art Printing	.....(4 cr)
PHIM 2286	Outdoor Photography	.....(3 cr)
General Education		.....(3 cr)
Total 14 Credits		

Spring Semester

PHIM 2111	Art Direction	.....(4 cr)
PHIM 2175	Photographic Certification & Business	.....(4 cr)
PHIM 2276	Presentations	.....(3 cr)
PHIM 2296	Corporate Communication	.....(4 cr)
Total 15 Credits		

GRADUATION REQUIREMENT 60 CREDITS

**Matting & Framing Certificate
Curriculum****Program Course Requirements**

PHIM 1119	Matting and Framing	.....(4 cr)
PHIM 1172	Photo Print Systems	.....(2 cr)
PHIM 1176	Visual Relationships	.....(3 cr)
Total 9 Credits		

GRADUATION REQUIREMENT 9 CREDITS

*Denotes Prerequisites

PHOTOGRAPHY PRODUCTION**Career Description**

For every photo that is taken, files must be downloaded, archived, manipulated, printed, resized, color managed, uploaded and delivered. Graduates will focus on this "production" part of photography. There is a heavy emphasis on software use and color management.

Program Information

The Photographic Imaging Technology Program offers an Associate of Applied Science (A.A.S.) Degree that consists of an ambitious, technical core in imaging and components of general education. A related option, with fewer general education requirements, is the Photographic Imaging Technology Diploma Program. The Certificate in Matting & Framing focuses on developing skills in finishing and presentation of art. The Certificate in Portrait Photography focuses on skills in all types of portrait photography. The Certificate in Photography Production focuses on developing skills in basic photography, software and color management to handle the demands of post photography production. Students choose a program option to meet their specific career goals.

Program Outcomes

Graduates will be able to:

- Demonstrate professional responsibility toward workplace safety;
- Select and use photographic software, equipment and technologies appropriate to the task;
- Apply concepts and aesthetics to create and evaluate photographic images;
- Effectively develop proposals and organize photo shoots;
- Work as a team member demonstrating dependability, flexibility, communication and management skills;
- Model professional and ethical behavior.

Special Program Requirements

DSLR Camera and Lens, Laptop Computer and software

Accreditation

Photo Marketing Association, Professional Photographers Association, NAPP

Career Titles

Photo Design Specialist, Studio Production Technician, Photographers Assistant, Lab Technician

Photography Production**Certificate Curriculum****Program Course Requirements****Fall Semester**

CART 1105 Concepts of Design	..... (3 cr)
PHIM 1114 Digital Darkroom	..... (4 cr)
PHIM 1126 Intro to Adobe Creative Cloud	..... (3 cr)
VPRO 1114 Camera Operations	..... (3 cr)

Spring Semester

PHIM 1176 Visual Relationships	..... (3 cr)
PHIM 1316 Creative Camera	..... (3 cr)
PHIM 2110 Color Management Systems	..... (4 cr)
PHIM 2112 Fine Art Printing	..... (4 cr)

GRADUATION REQUIREMENT 27 credits

PORTRAIT PHOTOGRAPHY**Career Description**

Portrait Photographers concentrate their photography specifically on formal and candid portraits taken at major life events such as high school graduation, special holidays, anniversaries, weddings, business promotions, birthdays, and other events. These photographers work in a studio environment or on location and utilize a variety of camera, lighting and software tools.

Program Information

The Photographic Imaging Technology Program offers an Associate of Applied Science (A.A.S.) Degree that consists of an ambitious, technical core in imaging and components of general education. A related option, with fewer general education requirements, is the Photographic Imaging Technology Diploma Program. The Certificate in Matting & Framing focuses on developing skills in finishing and presentation of art. The Certificate in Portrait Photography focuses on skills in all types of portrait photography. The Certificate in Photography Production focuses on developing skills in basic photography, software and color management to handle the demands of post photography production. Students choose a program option to meet their specific career goals.

Special Program Requirements

DSLR camera and lenses, laptop computer and software

Accreditation

Photo Marketing Association, Professional Photographers Association

Career Titles

Portrait Photographers, School Photographers, Event Photographer, Wedding Photographers, Photographer's Assistant, Studio Owner

Portrait Photography**Certificate Curriculum****Program Course Requirements****Fall Semester**

CART 1105	Concepts of Design	..... (3 cr)
PHIM 1114	Digital Darkroom	..... (4 cr)
PHIM 1126	Intro to Adobe Creative Cloud	..... (3 cr)
PHIM 1310	Portrait Photography	..... (3 cr)
VPRO 1114	Camera Operations	..... (3 cr)

Spring Semester

PHIM 1128	Business of Media	..... (3 cr)
PHIM 1174	Studio Photographics	..... (3 cr)
PHIM 1176	Visual Relationships	..... (3 cr)
PHIM 1316	Creative Camera	..... (3 cr)

GRADUATION REQUIREMENT - 28 credits

VIDEOGRAPHY PRODUCTION

Career Description

Videography is quickly becoming one of the fastest growing career choices in the 21st century. With the explosion of cable networks, web-casting and video corporate communications, this field is expected to experience steady, long-term growth. Videography production is the professional process of telling stories through a series of recorded, filmed images using digital media. Film and video editors edit programming for the motion picture, cable and broadcast television industries.

Camera operators employed in the entertainment, corporate or news fields use digital media to record movies, television programs, events, and commercials. Studio operations include floor directors, technical directors, camera operators, teleprompter operators and audio engineers. News camera operators, also called electronic news-gathering (ENG) operators, work as part of a reporting team, following newsworthy events as they unfold.

A degree in Videography at Central Lakes College prepares students for entry-level positions in all of these areas.

Program Information

Shoot, write, edit, produce - these are the foundations for all video and film production. They are the focus of the Videography Production A.A.S. or Diploma Program at Central Lakes College.

Students will learn the proper techniques for capturing motion picture footage using professional-grade camera equipment. A strong concentration on production lighting and audio recording is included. Scriptwriting is a key element of the production process and is emphasized in this program.

Video editing is essential to all motion picture completion and both basic and advanced editing procedures are stressed. Employers are seeking entry-level operators with a broad understanding of the foundations of

production. Our focused approach at Central Lakes College ensures graduates will be positioned appropriately for successful entry into the industry.

Program Outcomes

Graduates will be able to:

- 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;
- Encode video files for distribution to broadcast, web and digital recording.

Career Titles

Some common career titles for this field include video editor, videographer, cinematographer, producer, director, production assistant, photojournalist, news producer and writer.

VIDEOGRAPHY PRODUCTION**Videography Production****A.A.S. Curriculum****Program Course Requirements****First Year - Fall Semester**

CART 1105	Concepts of Design	.....(3 cr)
ENGL 1422	Practical Writing	.....(3 cr)
OR		
ENGL 1410	Composition I	.....(4 cr)
PHIM 1126	Intro to Adobe CC	.....(3 cr)
VPRO 1110	Video Editing Workflow	.....(3 cr)
VPRO 1114	Camera Operations	.....(3 cr)
Total - 15 credits		

First Year - Spring Semester

PHIM 1128	Business of Media	.....(3 cr)
VPRO 1100	Media Scriptwriting	.....(3 cr)
CART 1126	Media Lighting and Sound	.....(4 cr)
General Education	.....	(6 cr)
Total - 16 credits		

Second Year - Fall Semester

CART 2130	Media Production	.....(3 cr)
VPRO 2104	Video Production I	.....(3 cr)
VPRO 2110	Advanced Camera	.....(3 cr)
VPRO 2112	Advanced Video Editing	.....(3 cr)
General Education	.....	(3 cr)
Total - 15 credits		

Second Year - Spring Semester

CART 2132	Designs in Social Media	.....(3 cr)
VPRO 2106	Video Production II	.....(3 cr)
VPRO 2130	Creative Development	.....(5 cr)
General Education	.....	(3 cr)
Total - 14 credits		

GRADUATION REQUIREMENT 60 credits

Videography Production**Diploma Curriculum****Program Course Requirements****First Year - Fall Semester**

CART 1105	Concepts of Design	.....(3 cr)
ENGL 1422	Practical Writing	.....(3 cr)
OR		
ENGL 1410	Composition I	.....(4 cr)
PHIM 1126	Intro to Adobe CC	.....(3 cr)
VPRO 1110	Video Editing Workflow	.....(3 cr)
VPRO 1114	Camera Operations	.....(3 cr)
Total - 15-16 credits		

First Year - Spring Semester

CART 1126	Media Lighting and Sound	.....(4 cr)
PHIM 1128	Business of Media	.....(3 cr)
VPRO 1100	Media Scriptwriting	.....(3 cr)
General Education	.....	(3 cr)
Total - 13 credits		

Second Year - Fall Semester

CART 2130	Media Production	.....(3 cr)
VPRO 2104	Video Production I	.....(3 cr)
VPRO 2110	Advanced Camera	.....(3 cr)
VPRO 2112	Advanced Video Editing	.....(3 cr)
General Education	.....	(3 cr)
Total - 15 credits		

Second Year - Spring Semester

CART 2132	Designs in Social Media	.....(3 cr)
VPRO 2106	Video Productions II	.....(3 cr)
VPRO 2130	Creative Development	.....(5 cr)
Total - 11 credits		

GRADUATION REQUIREMENT 54 credits

DENTAL ASSISTING

Career Description

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. A career in dental assisting offers variety, job satisfaction, opportunity for service, and financial reward.

Program Information

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. There are three semesters. Fall and Spring are on-campus and the nine-week Summer session provides internships off-campus in dental facilities and private dental practices. This education prepares the student to take national and state written examinations required for certification and registration as a dental assistant. A certified registered dental assistant becomes a member of the dental team.

Special Department Information

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.

Program Outcomes

Graduates will be able to:

- 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

- Model professionalism through continuing education and membership in the American Dental Assistants Association

Special Program Requirements

American Heart Association – Health Care Provider CPR is a prerequisite before working on patients.

Students must meet the following conditions in order to graduate:

1. The cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0
2. The cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0
3. Students must complete one third (20) of their credits at Central Lakes College.

Accreditation

Accredited by the American Dental Association since May 1967.

Admissions

Progression through the program is sequential. Admission date is Fall semester. Applicants must have a high school diploma or GED. 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.

Transfer Opportunities

Some courses within the program may be used as elective credits toward an A.A. degree.

DENTAL ASSISTING

Career Titles

This program will help students prepare for a wide range of dental assisting careers, including chairside dental assistant in general/specialty practices, expanded-functions dental assistant, administrative business assistant, dental sales personnel, sterilization assistant and dental insurance personnel.

Dental Assisting A.A.S. Curriculum

Program Course Requirements

Fall Semester

DENT 1106	Dental Orientation & Anatomy	.....	(2 cr)
DENT 1108	General Anatomy	.....	(3 cr)
DENT 1116*	Dental Clinic I	.....	(8 cr)
DENT 1118*	Dental Radiology I	.....	(2 cr)
DENT 1120*	Preventive Dentistry	.....	(2 cr)
DENT 1124	Biomaterials	.....	(2 cr)
Total 19 Credits			

Spring Semester

DENT 1114	Pathology, Pharm., Law & Emergencies	.....	(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 & Communication	....	(2 cr)
Total 18 Credits			

Summer Session

DENT 1150*	Dental Internship (336 hours)	(7 cr)
Total 7 Credits			

Second Year - Fall Semester

ENGL 1410	Composition I	(4 cr)
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Students must complete 12 additional credits from the Minnesota Transfer Curriculum (MnTC). General Education courses must be chosen from at least 2 goal areas other than Goal 1- Communications. For students who plan to pursue Dental Hygiene in the future, we suggest choosing your General Education courses in conjunction with prerequisite requirements. See a counselor for assistance choosing courses for your targeted program/college. Typical Dental Hygiene course prerequisites may include:

BIOL 2457	Microbiology	.....	(4 cr)
BIOL 2467	Anatomy & Physiology I	.....	(4 cr)
BIOL 2468	Anatomy & Physiology II	.....	(4 cr)
PSYC 2421	General Psychology I	.....	(4 cr)
SOCL 1401	Introduction to Sociology	.....	(3 cr)
SPCH 1421	Interpersonal Communication	.....	(3 cr)
Total 16 Credits			

GRADUATION REQUIREMENT 60 CREDITS

*Denotes Prerequisites

Dental Assisting

Diploma Curriculum

Program Course Requirements

Fall Semester

DENT 1108	General Anatomy	.....	(3 cr)
DENT 1106	Dental Orientation & Anatomy	.....	(2 cr)
DENT 1116*	Dental Clinic I	.....	(8 cr)
DENT 1118*	Dental Radiology I	.....	(2 cr)
DENT 1120*	Preventive Dentistry	.....	(2 cr)
DENT 1124	Biomaterials	.....	(2 cr)
Total 19 Credits			

Spring Semester

DENT 1114	Pathology, Pharmacology, Law & Emergencies	.....	(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 & Communication	....	(2 cr)
Total 18 Credits			

Summer Session

DENT 1150*	Dental Internship (336 hours)	.....	(7 cr)
Total 7 Credits			

GRADUATION REQUIREMENT 44 CREDITS

*Denotes Prerequisites

MEDICAL ASSISTANT

Career Description

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. In Minnesota, the employment for medical assistants is expected to grow much faster than average for all occupations through 2014. A medical assistant will have direct patient contact and work closely with physicians, nurses, and other health care professionals.

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.

Program Information

The 39-credit 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 additional 21 credits allows student 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

Graduates will be able to:

- 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
- Demonstrate professional behaviors and attitudes consistent with delivery of safe, ethical, legal and compassionate patient care

Special Program Requirements

Students must complete Healthcare Provider CPR working on patients.

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.

Certification

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).

Admissions

Progression through the program is sequential. Admission start date for the Medical Assistant courses is Fall semester. High school diploma or GED required.

MEDICAL ASSISTANT

Students may have completed general education requirements or wish to take those prior to or after completing the program courses. Please contact the Admissions Department on the Brainerd or Staples campus for information or to apply to the program.

Transfer Opportunities

Some courses within the program may be used as elective credits toward an associate degree.

Career Titles

Students may take a national certification exam to become a Certified Medical Assistant or Registered Medical Assistant.

Medical Assistant A.A.S. Curriculum

Program Course Requirements

**NOTE: American Heart Association Health Care Provider CPR is a prerequisite before working on patients.

Required Technical Courses

HINS 1146	Fundamentals of Coding & Reimbursement	(3 cr)
MEDA 1110*	Clinical Procedures 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	(1 cr)
MEDA 1130	Ethics and Issues	(1 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	(1 cr)
MEDA 1145*	Fundamentals of Radiographic Imaging	(2 cr)
MEDA 2150*	Medical Assistant Internship	(5 cr)
PNUR 1130**	Life Span	(1 cr)
PNUR 1140	Medication Calculations for Healthcare Careers	(1 cr)

Total 39 credits

General Education

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. Students must include within the General Education component the following courses:

BIOL 1404	Human Biology (Goal 3)	(3 cr)
SPCH 2421	Intercultural Communication (Goal 1)	(3 cr)
ENGL 1422	Practical Writing (Goal 1)	(3 cr)

OR	ENGL 1410	Composition I (Goal 1)	(4 cr)
OR	AMSL 1410	American Sign Language (Goal 8)	(4 cr)
OR	SPAN 1401	Beginning Spanish (Goal 1)	(4 cr)

Choose additional 1-2 credits from the Minnesota Transfer Curriculum.

Total 15 credits

Electives

Choose 9 additional credits.

Total 9 credits

GRADUATION REQUIREMENT 60 credits

*Denotes Prerequisites

**PSYC 2431 Human Development (3 credits) may be substituted for PNUR 1130 Life Span (1 credit)

Medical Assistant Diploma Curriculum

Program Course Requirements

**NOTE: American Heart Association Health Care Provider CPR is a prerequisite before working on patients.

Fall Semester

BIOL 1104	Human Biology	(3 cr)
MEDA 1128	Medical Terminology	(1 cr)
MEDA 1110*	Clinical Procedures I	(3 cr)
MEDA 1120	Laboratory Techniques I	(3 cr)
MEDA 1130	Ethics and Issues	(1 cr)
MEDA 1132*	Phlebotomy	(2 cr)
MEDA 1135	Administrative Procedures I	(3 cr)
PNUR 1130**	Life Span	(1 cr)
PNUR 1140	Medication Calculations for Healthcare Careers	(1 cr)

Total 18 Credits

Spring Semester

HINS 2316*	Fundamentals of Coding & Reimbursement	(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	(1 cr)
MEDA 1145*	Fundamentals of Radiographic Imaging	(2 cr)

Total 16 Credits

Summer Semester

MEDA 2150*	Medical Assistant Internship	(5 cr)
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Total 5 Credits

GRADUATION REQUIREMENT 39 CREDITS

*Denotes Prerequisites

**PSYC 2431 Human Development may be substituted for PNUR 1130 Life Span.

NURSING

Career Description

Registered nurses (RNs) work to promote health, prevent disease, and help clients cope with illness. They are advocates and health educators for clients, families, and communities. When providing direct client care they observe, assess, and record symptoms, responses, and progress of clients; assist physicians during examinations, 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.

Program Information

The Associates Degree (AD) Nursing Program at Central Lakes College is a practical nursing mobility program designed to educate and prepare qualified licensed practical nurses (LPNs) to take the National Council Licensure Examination for RNs. The program is one calendar year in length, beginning in June with graduation the following May.

Program Outcomes

Graduates will be able to:

- Demonstrate comprehensive, holistic, assessments that include diversity in the dimensions of physical, developmental, emotional, psychosocial, cultural, spiritual and functional status of the client in context of environment. (QSEN Competencies: Patient Centered Care)
- Effectively utilize therapeutic verbal and non-verbal communication techniques through culturally competent care that is directed toward promoting positive outcomes and establishing trusting client-centered relationships. (QSEN Competencies: Patient Centered Care)
- Apply the knowledge and science of nursing by performing within the scope of practice of a registered nurse (RN). (QSEN Competencies: Teamwork and Collaboration; Safety)
- Collaborate with the health care team, including use of nursing judgment to accurately plan patient priorities and preferences, utilize available resources and referrals, and develop shared accountability and mutual respect for safe, ethical, patient-centered holistic nursing care. (QSEN Competencies: Patient Centered Care; Teamwork and Collaboration; Safety)

- Demonstrate development of personal/professional behaviors by implementing one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving professional identity as a nurse committed to evidence-based practice, life-long learning, service learning/civic engagement, caring, advocacy, excellence, and safe quality care for diverse patients within a family and community context. (QSEN Competencies: Patient Centered Care; Evidence Based Practice; Quality Improvement; Safety)
- Analyze assessed information to determine effective clinical decision-making through a spirit of inquiry that results in problem resolution, individualizing care through use of the nursing process, and assuring the delivery of accurate, safe care that moves the client and support person toward positive outcomes. (QSEN Competencies: Evidenced Based Practice; Safety)

Special Program Requirements

- Completion of all science courses is required prior to formal acceptance into the AD Nursing Program.
- Completion of all other required liberal arts courses is highly recommended prior to application, but can be taken concurrently during the program, however, applications are considered more competitive when general education co-requisites are completed prior to program entry.
- A minimum grade of 'C' is required in each of the required courses (liberal arts, sciences and nursing) for the AD Nursing Program. A grade of 'C-minus' is not acceptable.
- The applicant must have a minimum 2.75 cumulative GPA in required liberal arts and sciences courses and a minimum cumulative GPA of 2.75 in the practical nursing program.
- Students must apply each year that they are seeking acceptance to the AD Nursing Program. Applications are accepted for the following August beginning each September; the application deadline is February 1st, however, late applications will be reviewed if the program is not filled by the end of May.
- Admission continues to be highly

NURSING

competitive and in strong demand. Experience working as an LPN is highly beneficial to applicants.

- Background study: 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 experiences. Any student who does not pass the criminal background check will not be permitted to participate in clinical experiences, thereby rendering the individual ineligible to progress in the AD Nursing Program. Students should direct questions and appeals to the Minnesota Department of Human Services, Licensing Division, 444 Lafayette Blvd., St. Paul, MN 55155-3842. Phone: (651) 296-3971. Web address: <http://www.dhs.state.mn.us/>.
- Permission from Facility Health Partners for site clinical participation
- Immunization documentation requirements
- Mandatory orientation session

Accreditation

This program is approved by the Minnesota Board of Nursing and the North Central Association of Colleges and Schools. The AD Nursing Program is seeking national accreditation.

Admissions

Admission to the Nursing sequence is competitive and based on grades and performance in the PN program and general education courses.

Transfer Opportunities

Broader career opportunities are available for RNs with a bachelor's or master's degree in nursing. The counseling department has transfer guides for baccalaureate nursing programs at other colleges. Admission requirements and course equivalencies may vary. This program has articulation agreements with the following MnSCU institutions: Bemidji State University, Metro State University, Minnesota State University - Mankato, Minnesota State University - Moorhead, St. Cloud State University, Winona State University.

Nursing (RN) A.S. Curriculum Program Course Requirements

Prerequisites

NURS 2522* Medication Administration Concepts (1 cr)
 Successful completion of PN Program (12 cr)
Total - 13 credits

General Education Prerequisites

BIOL 2467* Anatomy & Physiology I (4 cr)
 BIOL 2468* Anatomy & Physiology II (4 cr)
 CHEM 1407 Life Science Chemistry*** (4 cr)
 ENGL 1411 Composition II (4 cr)
 PSYC 2421 General Psychology I (4 cr)
 PSYC 2431* Human Development (3 cr)

General Education Co-requisites**

BIOL 2457* Microbiology (4 cr)
 PHIL 2420 Ethics (3 cr)
Total - 30 Credits

Required Courses

NURS 2500* Professional Nursing Leadership . . . (2 cr)
 NURS 2501* Professional Nursing Concepts through the Lifespan I . . . (6 cr)
 NURS 2502* Professional Nursing Concepts through the Lifespan II . . . (6 cr)
 NURS 2513* Professional Nursing Practicum I . . . (3 cr)
 NURS 2514* Professional Nursing Practicum II . . . (3 cr)
 NURS 2520* Concepts in Role Transition for the Professional Nurse (1 cr)

Total - 21 Credits

GRADUATION REQUIREMENT 64 CREDITS

*Denotes Prerequisites

**Co-requisites may be taken concurrently with required courses; however, applications are considered more competitive when completed prior to admission.

***CHEM 1410, 1414, 1424 or 1425, 2472 or 2473 may be substituted for CHEM 1407.

Note: Students must earn a "C" or above in nursing courses and required liberal arts and science courses. Students earning a grade below a C cannot progress or graduate.

Notes: The student must earn a "C" or above in nursing courses and required liberal arts and science courses. A student earning a grade below a C cannot progress or graduate. Students will need to meet the required general education requirement of 30 credits.

Admission to the Nursing sequence is competitive and based on grades and performance in the PN program and general education courses.

NURSING ASSISTANT/HOME HEALTH AID

Career Description

A nursing assistant is a nursing home or certified boarding care home employee who is assigned by the director of nursing to provide or assist in the provision of nursing or nursing-related services under the supervision of a registered nurse.

Program Information

PNUR 1120, Basic Nursing I, the Nursing Assistant Class, is designed to prepare students for employment in licensed nursing homes and certified boarding care homes. Skills are demonstrated in a supervised laboratory setting and the clinical environment. This course meets MN Stage and Federal requirements. Upon completion of the class, students are eligible to take the Nursing Assistant State Competency Evaluation which is necessary for placement on the MN Stage Registry. PNUR 1120, Basic Nursing I, is a prerequisite to the Practical Nursing Program and to PNUR 1315, the Home Health Aide Class. PNUR 1315, Home Health Aide, is a one (1) credit course. Home Health Aides can be employed in nursing homes or home care agencies.

Program Outcomes

Graduates will be able to:

- Demonstrate safe and respectful resident personal cares in a long term care facility setting;
- Demonstrate professional work ethic by arriving for class and clinical on time;
- Demonstrate effective verbal and non-verbal communication skills with residents and other health care team;
- members in a respectful manner that preserves human dignity;
- Demonstrate accurate measurement of intake, output, height, weight and vital signs.

Special Program Requirements

The application process includes completion of a CLC application and the College Entrance Test (CET). A \$20 application fee is required.

Certification

Central Lakes College offer competency evaluation for nursing assistant and home health aide candidates seeking placement on the MN State Registry. Testing dates, times and fees vary. Please contact the Business Office at Central Lakes College for a current schedule.

Admissions

Please contact the admissions department for information or to register for the class.

Transfer Opportunities

NSGA 1110 Nursing Assistant 3 credits
 NSGA 1115 Home Health Aide 1 credit
 These courses are offered several times throughout the school year. Please contact your advisor or counselor for a current schedule. Upon completion of the course, a Nursing Assistant Certificate and/or Home Health Aide Certificate is awarded. Students completing the Nursing Assistant Course are eligible to take the MN Nursing Assistant Competency Evaluation for placement on the MN State Registry. Students completing the Home Health Aide Course and the Nursing Assistant Course are eligible to take the MN Nursing Assistant/Home Health Competency Evaluation for placement on the MN State Registry.

Career Titles

Nursing Assistant, NA Nursing Assistant Registered, NAR Home Health Aide, HHA

Nursing Assistant Certificate Curriculum

Program Course Requirements	
NSGA 1110 Basic Nursing I	..... (3 cr)
NSGA 1115 Home Health Aide	..... (1 cr)
Total	- 4 credits

These courses are offered several times throughout the school year. Please consult your adviser or counselor for a current schedule.

PHLEBOTOMY TECHNICIAN

Career Description

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 microtechniques. 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.

Program Information

The 17 credit Phlebotomy Technician Certificate is designed to prepare students for career opportunities in the rapidly growing, high-demand field of health care support. Instruction is already in place during the fall semester of the Medical Assistant Program. This certificate would enable students to complete the academic requirements for a phlebotomy technician in one semester and complete the internship requirements following instruction.

Program Outcomes

Graduates will be able to:

- 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 microtechniques.
- Interact with patients, families, providers, and other healthcare team members in a respectful and caring manner.

Special Program Requirements

Students must complete Healthcare Provider CPR prior to working with patients.

Accreditation

Accreditation through AMT or ASCP would be sought upon final approval of this certificate.

Certification

Upon successful completion of all coursework and a 135 hour internship, students will prepare to sit for the national certification exam to be come a Certified Phlebotomy Technician.

Admissions

Progression through the program is sequential. Admission start date is Fall semester. A high school diploma or GED is required. Healthcare Provider CPR is a prerequisite for this program. Please contact the Admissions Department on the Brainerd or Staples campus for information or to apply to the program.

Career Titles

Students may take a national certification exam to become a certified Phlebotomist or Phlebotomy Technician.

Phlebotomy Technician Certificate Curriculum

Program Course Requirements

Fall Semester

BIOL 1404	Human Biology	.....	(3 cr)
ENGL 1422	Practical Writing	.....	(3 cr)
MEDA 1120	Laboratory Techniques I	.....	(3 cr)
MEDA 1128	Medical Terminology	.....	(1 cr)
MEDA 1130	Ethics and Issues	.....	(1 cr)
MEDA 1132*	Phlebotomy	.....	(2 cr)
PNUR 1130**	Life Span	.....	(1cr)
Total 14 credits			

Spring Semester

MEDA 1134	Phlebotomy Technician Internship	...	(3 cr)
Total 3 credits			

GRADUATION REQUIREMENT 17 CREDITS

*Denotes Prerequisites

**PSYC 2431 Human Development (3 credits) may be substituted for PNUR 1130 Life Span (1 credit)

PRACTICAL NURSING

Career Description

Licensed practical nurses (LPNs) and licensed vocational nurses (LVNs) 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.

Program Information

The Practical Nursing Program is designed to prepare graduates to take the National Council Licensure Examination for Practical Nursing. Student course requirements include a wide variety of clinical experiences in hospitals, clinics and nursing homes. Graduates join the healthcare team as LPNs upon successful completion of the licensing requirements. There are several program options available. Classes are offered at Brainerd and/or Staples campuses.

Program Outcomes

Graduates will be able to:

- Demonstrate professional identity and personal/professional development through accountability, adhering to standards of practical nursing practice within legal, ethical and regulatory framework with specified populations and identification of rationale for scope of practice decision making.
- Effectively communicate with patients and members of the interdisciplinary health care team, incorporating interpersonal and therapeutic verbal and non-verbal communication skills.
- Collect and organize/prioritize holistic patient-centered information from multiple sources to establish foundation for relationship-centered nursing care through nursing judgments within the practical nursing role.
- Collaborate with the registered nurse or other members of the health care team to organize and incorporate data collection and knowledge base to contribute to patient care and actions based on established nursing protocols and nursing process.
- Demonstrate nursing excellence in a caring and empathetic approach to the safe,

therapeutic, and individualized care of each client and provide culturally competent care across the lifespan to individuals within a diverse society and within the context of their environment.

- Implement competent patient-centered care with integrity at the direction of the registered nurse through performance of nursing interventions and with a spirit of inquiry at the Practical Nurse entry level.

Special Program Requirements

This program has a special application process. This includes completion of a CLC application and the College Entrance Test (CET). Also, 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.

Accreditation

This program is approved by the Minnesota Board of Nursing and the North Central Association of Colleges and Schools. The Practical Nursing Program is seeking national accreditation.

Admissions

This program has a special application process. This includes completion of a CLC application and the College Entrance Test (CET). Also, 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.

Transfer Opportunities

This program has transfer articulation agreements with the following MnSCU institutions:

- Alexandria Technical & 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 West Community & Technical College
- Normandale Community College
- North Hennepin Community College
- Northland Community & Technical College

PRACTICAL NURSING

- Northwest Technical College – Bemidji
- Pine Technical College
- Ridgewater College
- Riverland Community College
- Rochester Community & Technical College
- South Central College
- St. Cloud Technical and Community College

Practical Nursing Diploma Curriculum

Prerequisites

Health Care Provider or Professional Rescuer CPR
 75 hour Minnesota Department of Health Nursing
 Assistant course OR NSGA 1110 Nursing Assistant
 Passing score on the ATI TEAS test

BIOL 1404	Human Biology	.....	(3 cr)
OR			
BIOL 2467*	Anatomy & Physiology I	.....	(4 cr)
AND			
BIOL 2468*	Anatomy & Physiology II	.....	(4 cr)
ENGL 1410	Composition 1	.....	(4 cr)
PNUR 1130	LifeSpan**	.....	(1 cr)
PNUR 1140	Medication Calculations for Healthcare Professionals	.....	(1 cr)

Total 9 Credits

Fall Semester

PNUR 1160*	Practical Nursing Skills Lab	.....	(3 cr)
PNUR 1151*	Clinical Lab I	.....	(3 cr)
PNUR 1168*	Psychosocial Nursing	.....	(3 cr)
PNUR 1265*	Medical Surgical Nursing I	.....	(5 cr)

Total 14 Credits

Spring Semester

PNUR 1152*	Clinical Lab II	.....	(3 cr)
PNUR 1166*	Gerontological Nursing	.....	(2 cr)
PNUR 1175*	Maternal Child Health	.....	(2 cr)
PNUR 1270*	Medical Surgical Nursing II	.....	(6 cr)

Total 13 Credits

GRADUATION REQUIREMENT 36 CREDITS

*Denotes Prerequisites

**Students may substitute PSYC 2431 Human
 Development, 3 credits for PNUR 1130 Life Span

AUTOMOTIVE TECHNOLOGY

Program Information

The Automotive Technology Diploma at Central Lakes College is an 11-month program in automotive technology that provides students with the skills needed to pursue a career in any area of automotive repair. Our program takes great pride in its 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.

Program Outcomes

Graduates will be able to:

- Handle customer needs, complaints and questions about repairs/service;
- Troubleshoot and diagnose 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.

Special Program Requirements

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

1. College Cumulative GPA Requirement: The cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0.
2. Residency Requirement: students must complete one third (14) of their credits at Central Lakes College.

Admissions

The Automotive Technology Diploma is an 11-month program starting Fall Semester. To be admitted into the program, students must achieve a score of 56 or higher on the Accuplacer Reading test (or equivalent).

Transfer Opportunities

Most Automotive Service Excellence (ASE) area certifications will transfer to CLC. CLC automotive technician courses transfer to many four-year schools. Consult with an advisor or counselor to learn about specific transfer opportunities.

Career Titles

Some common career titles for this field are line technician, service writer, technician instructor, sales person, and automotive parts representative. There are also opportunities for self-employment.

Automotive Technology Diploma Curriculum

Program Course Requirements

Fall Semester - First Half

AUTM 1101	A1 Engine Repair	.....	(4 cr)
AUTM 1106*	A6 Electrical/Electronic System I**	.....	(4 cr)
AUTM 1120	Work Place Skills I	.....	(1 cr)

Fall Semester-First Half Total 9 Credits

Fall Semester - Second Half

AUTM 1108*	A8 Engine Performance I**	.....	(4 cr)
AUTM 1116*	A6 Electrical/ Electronics Systems II**	.....	(4 cr)
AUTM 1121	Work Place Skills II	.....	(1 cr)

Fall Semester-Second Half Total 9 Credits

Spring Semester - First Half

AUTM 1102	A2 Automatic Transmission & Transaxle	.....	(4 cr)
AUTM 1118	A8 Engine Performance II	.....	(4 cr)
AUTM 1122	Work Place Skills III	.....	(1 cr)

Spring Semester - First Half Total 9 Credits

Spring Semester - Second Half

AUTM 1104*	A4 Steering & Suspension**	.....	(4 cr)
AUTM 1105*	A5 Brakes	.....	(4 cr)
AUTM 1123	Work Place Skills IV	.....	(1 cr)

Spring Semester - Second Half Total 9 Credits

Summer Semester

AUTM 1103	A3 Manual Drive Train & Axles	.....	(4 cr)
AUTM 1107	A7 Heating & Air Conditioning	.....	(4 cr)

Summer Session Total 8 Credits

GRADUATION REQUIREMENT 44 CREDITS

*Denotes Prerequisites

**High School Certifiable Courses

DIESEL & HEAVY EQUIPMENT TECHNOLOGY**Career Description**

The Diesel & Heavy Equipment Technology programs allow students to prepare for careers in maintenance, repair, and diagnostics of diesel equipment. 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 Information

The Diesel and Heavy Equipment Technician Diploma is an eleven-month program that includes an accelerated six-week summer session. The Diesel and Heavy Equipment Technology Associate of Applied Science (A.A.S.) Degree consists of all coursework from the diploma program plus and an additional 15 credits of General Education courses from at least three of the 10 goal areas of the Minnesota Transfer Curriculum (MnTC).

Program Outcomes

Graduates will be able to:

- 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.

Special Program Requirements

Students enrolled in these programs 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.

Accreditation

This program is accredited by AED Foundation (Associated Equipment Distributors). <http://www.aedfoundation.org/accredited-schools.cfm>

Career Titles

Diesel and Heavy Equipment Technician, Diesel Maintenance Technician, Heavy Equipment Technician, Heavy Truck Technician, Diesel Technician, Diesel Mechanic

Diesel & Heavy Equipment Technology A.A.S. Curriculum Program Course Requirements**Fall Semester**

DHET 1103	Intro to Construction Equipment	(1 cr)
OR		
HEOM 1200	Intro to Operations	(1 cr)
MATH 1500	Applied Math	(3 cr)

The following classes are offered in the fall & the spring:

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)

Total 19 Credits**Spring Semester**

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 & Heavy Equipment Technicians	(1 cr)

The following classes are offered in the fall & the spring:

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

Total 20 Credits**Summer Semester**

DHET 1124	Customer Service/ Service Management 2	(1 cr)
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)

Total 13 Credits

Students must select 15 general education credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum.

Total 15 Credits

GRADUATION REQUIREMENT 67 credits

*Denotes Prerequisites

DIESEL & HEAVY EQUIPMENT TECHNOLOGY

Diesel & Heavy Equipment Technology

Diploma Curriculum

Program Course Requirements

Fall Semester

DHET 1103	Intro to Construction Equipment	(1 cr)
OR		
HEOM 1200	Intro to Operations	(1 cr)
MATH 1500	Applied Math	(3 cr)

The following classes are offered in the fall & the spring:

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)

Total 19 Credits

Spring Semester

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 & Heavy Equipment Technicians	(1 cr)

The following classes are offered in the fall & the spring:

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

Total 20 Credits

Summer Semester

DHET 1124	Customer Service/ Service Management 2	(1 cr)
DHET 1132*	On Highway Vehicle Systems Theory	(3 cr)
DHET 1133*	On Highway Vehicle Systems Lab	(4 cr)

Total 8 Credits

GRADUATION REQUIREMENT 47 CREDITS

*Denotes Prerequisites

HEAVY EQUIPMENT OPERATIONS & MAINTENANCE**Career Description**

Heavy equipment operators are employed in many areas of the construction industry, some of which include both state and local government work, landscaping, road construction, logging, mining, underground utilities and housing developments. Graduates can expect above average earning potential when they are employed in the grading and excavating industry. The ability to operate various types of heavy equipment makes for a versatile employee which is essential to the construction industry. Knowledge of the maintenance of heavy equipment is critical in maintaining daily construction operations.

Positions can be found in rural and metropolitan areas with both large and small companies nationwide. Today's construction includes updated equipment with joystick controls and the use of a global positioning system (GPS). Opportunities are available to progress in the industry to lead operator positions, site supervision or operating your own business. Contractors in all areas of the construction industry need trained employees to be successful.

Program Information

The Heavy Equipment Operation and Maintenance Program at Central Lakes College, Staples Campus is a unique program offered in Minnesota. The 64-credit 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 internship in industry. In the well-equipped West Campus maintenance shop students learn the skills necessary to service and maintain a fleet of heavy equipment.

After completion of the maintenance courses, students are given real life projects in the operations field experiencing hands on training on dozers, scrapers, graders, backhoes, wheel loaders, excavators, skid steers and trucks. An opportunity to

improve student skills is available on various simulators including truck driving, excavator, motor grader and wheel loader.

Curriculum includes courses in construction survey, blueprint reading, and soils and compaction. 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 operating. Additional areas are available for special operations such as excavating in water and muck, rock work and clearing and grubbing.

The West Campus includes an up-to-date classroom facility and recently completed 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 Heavy Equipment Operation and Maintenance Program encourages the development of teamwork and interpersonal communication skills required in the workforce. The program also stresses the importance of safety, a strong work ethic and the value of continuing education and lifelong learning.

The Heavy Equipment Operation and Maintenance Program enables students to stay on top of technological advances in construction equipment, such as GPS, and other issues related to the industry's needs. We are mindful of the needs of the industry, and strive to educate students to maintain the highest standards of quality and integrity to enhance economic growth in communities. Contractors seek competent people to fill the seats of the retiring generation to uphold a competitive business.

Program Outcomes

Graduates will be able to:

- Perform basic operations of earthmoving equipment related to grading and excavation needs;

HEAVY EQUIPMENT OPERATIONS & MAINTENANCE

- 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;
- Maintain a Class A Commercial Driver's License;
- Maintain a Red Cross CPR/First Aid Certification;
- Demonstrate knowledge of the terms and responsibilities of a "competent person" as it pertains to OSHA, Subpart P.

Special Program Requirements

Students entering the program will need a current CDL permit and are required to participate in mandatory drug testing. Students in the program must maintain a current driver's license while attending. Random drug and alcohol screening of students in the program will be done throughout the year. In order to graduate from the Heavy Equipment Program, students must earn a cumulative GPA of 2.0 in the credits attempted and completed towards the technical core of the diploma.

Admissions

The Heavy Equipment Operation and Maintenance Program is offered as a full-time day program. New students are accepted into the program in August, December, February and June.

Career Titles

Some common career titles of this field are heavy equipment operator, pipeline or crane oiler, snowplow operator, and haul truck driver.

Heavy Equipment Operations & Maintenance

Diploma Curriculum

First Year - Fall Semester

Program Course Requirements

First Year - Fall Semester

COMP 1101	Computer Fundamentals	.....	(3 cr)
HEOM 1101	Construction Safety & First Aid	.....	(1 cr)
HEOM 1102	Mechanical Theory	.....	(1 cr)
HEOM 1107	Tools, Fasteners, Shop Practices	.....	(1 cr)
HEOM 1108	Heavy Equipment Math/Estimating	.....	(2 cr)
HEOM 1165*	Commercial Drivers License	.....	(3 cr)
HEOM 1200	Intro to Operations	.....	(1 cr)
HEOM 1211	Servicing I	.....	(3 cr)
Total 15 Credits			

Spring Semester

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)
Total 15 Credits			

Second Year - Fall Semester

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)
Total 18 Credits			

Spring Semester

HEOM 1261*	General Lab	.....	(5 cr)
HEOM 2110*	Backhoe/Excavation 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)
Total 16 Credits			

GRADUATION REQUIREMENT 64 CREDITS

*Denotes Prerequisites

MARINE & SMALL ENGINE TECHNOLOGY

Career Description

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).

Program Information

Courses in the Marine and Small Engine Technology Program are designed to provide the students with the knowledge and skills needed for the rapidly growing recreational and power equipment fields. All aspects of maintenance and repair are taught, which include machine overhauls, shop operation, set up, and delivery. The Marine and Small Engine Technology Diploma and Associates of Applied Science (A.A.S.) are two-year programs.

Program Outcomes

Graduates will be able to:

- 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 engine maintenance, diagnostic and repair tools;
- Apply basic diagnostic and repair concepts to small engine, marine engine equipment power train and chassis systems;
- Apply preventative maintenance concepts to small engine equipment care and storage;
- Identify the functional relationships among small engine components and systems;
- Use a variety of computer, Web and technical resources to find information, troubleshoot problems and prepare estimates.

Transfer Opportunities

The Marine and Small Engine Technology Program has an articulation agreement with Bemidji State University for transfer to its Industrial Technology Program.

Career Titles

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.

Marine & Small Engine Technology A.A.S. Curriculum

Program Course Requirements

First Year - Fall Semester

MASE 1101 Basic Engines I	(3 cr)
MASE 1103* Basic Engines I Lab	(4 cr)
MASE 1120 Lawn & Garden	(2 cr)
MASE 1140 Snowmobile Systems & Lab	(4 cr)
General Education	(5 cr)

Total 18 Credits

Spring Semester

MASE 1106 Intro to Electronics	(2 cr)
MASE 1130 Marine Outboard I	(4 cr)
MASE 1132* Marine Outboard II	(4 cr)
MASE 1134 Marine Lower Unit	(4 cr)
WELD 1140 Trade Knowledge	(2 cr)
General Education	(2 cr)

Total 18 Credits

Second Year - Fall Semester

MASE 2133* Advance Marine	(3 cr)
MASE 2134* Advance Marine & Personal Water	(3 cr)
MASE 2135* Machine Shop	(2 cr)
MASE 2169* MASE Tune Up	(3 cr)
WELD 1100 Intro to Welding	(2 cr)
General Education	(5 cr)

Total 18 Credits

Spring Semester

MASE 2143* Diagnostic Troubleshooting	(3 cr)
MASE 2162* ATV Motorcycle Systems I	(4 cr)
MASE 2164* ATV Motorcycle Systems II	(4 cr)
MASE 2300 Special Project	(1 cr)
General Education	(3 cr)

Total 15 Credits

GRADUATION REQUIREMENT 69 CREDITS

*Denotes Prerequisites

MARINE & SMALL ENGINE TECHNOLOGY

Marine & Small Engine Technology Diploma Curriculum

Program Course Requirements

First Year - Fall Semester

MASE 1101	Basic Engines I	.....	(3 cr)
MASE 1103	Basic Engines I Lab	.....	(4 cr)
MASE 1120	Lawn & Garden	.....	(2 cr)
MASE 1140	Snowmobile Systems & Lab	.....	(4 cr)
MATH 1500	Applied Mathematics	.....	(3 cr)

Total 16 Credits

First Year - Spring Semester

MASE 1130	Marine Outboard I	.....	(4 cr)
MASE 1132	Marine Outboard II	.....	(4 cr)
MASE 1134	Marine Lower Unit	.....	(4 cr)
WELD 1140	Trade Knowledge	.....	(2 cr)
MASE 1106	Intro to Electronics	.....	(2 cr)

Total 16 Credits

Second Year - Fall Semester

MASE 2133	Advance Marine	.....	(3 cr)
MASE 2134	Advance Marine & Personal Water	..	(3 cr)
MASE 2135	Machine Shop	.....	(2 cr)
MASE 2169	MASE Tune Up	.....	(3 cr)
WELD 1100	Intro to Welding	.....	(2 cr)
General Education/Electives		.....	(3 cr)

Total 16 Credits

Second Year - Spring Semester

MASE 2143	Diagnostic Troubleshooting	.....	(3 cr)
MASE 2162	ATV Motorcycle Systems I	.....	(4 cr)
MASE 2164	ATV Motorcycle Systems II	.....	(4 cr)
General Education/Electives		.....	(5 cr)

Total 16 Credits

GRADUATION REQUIREMENT 64 CREDITS

*Denotes Prerequisites



COLLEGE IN THE SCHOOLS



College in the Schools Program

The College in the Schools (CIS) Program is a concurrent enrollment program administered by Central Lakes College (CLC) through the Minnesota State Colleges and Universities (MnSCU) P-16 Program Policies. Central Lakes College partners with high schools to provide them the option of strengthening their academic course offerings while providing high school juniors or seniors an opportunity to earn college credit. When enrolled in a CLC course through CIS, students are eligible to receive both high school credit and college credit.

College in the Schools, part of CLC's Division of Academic Affairs, is administered by the Director of Secondary Relations. Program courses are introductory college courses that have been approved for college credit as part of a degree or diploma program's required or elective credit options. Courses may be part of the Liberal Arts and Sciences or Career and Technical college curriculum. CIS courses are selected by each partnering high school. Credentialed high school instructors teach CIS courses.

CIS courses are taught during the regular high school day by exceptional high school instructors from high schools. CIS instructors are supported by CLC collaborating faculty. The course content, pedagogy, assignments, and assessments of CIS courses are the same as CLC's on-campus courses. All CIS courses are transcribed and become part of the student's permanent college record. Students successfully completing a course receive college academic credits which are transferable to other colleges and universities.

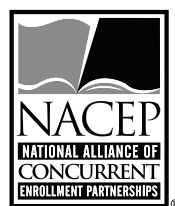
To be eligible for admission to the CIS Program, students must be a high school junior with a 3.0 cumulative grade point average or a senior with a 2.5 cumulative grade point average. As part of the CIS admissions process, students complete an application, provide a high school transcript, take the college assessment (Accuplacer), and complete a data enrollment form. In rare cases, students having

less than the required grade point average may appeal to enroll in the CIS Program. Students should contact their high school Counselor to complete the process.

Students enrolled in CIS courses follow all CLC academic and student policies, receive a college email address, and are eligible for participation in college functions.

College in the Schools (CIS) Program is fully accredited by the National Alliance of Concurrent Enrollment Partnerships (NACEP). This accreditation demonstrates that the CIS Program at Central Lakes College meets or exceeds rigorous national standards of quality in the areas of curriculum, instructors, students, assessment, and program evaluation.

NACEP is a professional organization for high schools and colleges that fosters and supports rigorous concurrent enrollment. Established in 1999 in response to the dramatic increase in concurrent enrollment courses throughout the country, NACEP serves as a national accrediting body and supports all members by providing standards of excellence, research, communication, and advocacy. To learn more about NACEP or to view the NACEP standards, visit www.nacep.org.





Below is a list of College in the Schools courses. Please see the course descriptions online.

Anthropology

ANTH 1457 Cultural Anthropology (3cr)

Art

ARTS 1401 Black & White Photo I (3cr)
 ARTS 1403 Color Photo I (3cr)
 ARTS 1420 The Art of Digital Photography..... (3cr)
 ARTS 1458 Drawing..... (3cr)
 ARTS 1459 2-D Design & Color (3cr)
 ARTS 1468 Painting..... (3cr)
 ARTS 1470 Art Appreciation (3cr)
 ARTS 1487 Ceramics: Beginning
 Hand Building (3cr)
 ARTS 1488 Ceramics:
 Beginning Throwing (3cr)
 ARTS 2485 American Indian Art (3cr)

Biology

BIOL 1404 Human Biology (3cr)
 BIOL 1411 Concepts of Biology (3cr)
 BIOL 1415 Environmental Biology (3cr)
 BIOL 1431 General Biology I..... (5cr)
 BIOL 1432 General Biology II (5cr)

Business

BUSN 1102 Accounting for Non-Accountants.... (3cr)
 BUSN 1501 Introduction to Business (3cr)

Chemistry

CHEM 1414 Fundamentals of Chemistry (4cr)

College and Career Studies

CCST 1510 College Success Skills (3cr)
 CCST 1530 Employment Strategies (3cr)
 CCST 1559 Money Management Skills..... (1cr)
 CCST 1570 Thinking, Learning and
 Communicating..... (3cr)

Computer Technology

COMP 1101 Computer Fundamentals (3cr)
 COMP 1120 Introduction to
 Computer Applications (3cr)

Economics

ECON 1450 The American Economy..... (3cr)

English

ENGL 1410 Composition I..... (4cr)
 ENGL 1411 Composition II (4cr)
 ENGL 1422 Practical Writing (3cr)
 ENGL 1452 Classical Mythology (3cr)
 ENGL 1454 Film Appreciation (3cr)
 ENGL 1463 Introduction to Literature..... (3cr)
 ENGL 1468 Poetry (3cr)
 ENGL 1469 American Short Story..... (3cr)
 ENGL 1470 Introduction to Science

Fiction and Fantasy Literature (3cr)
 ENGL 2450 World Literature (3cr)
 ENGL 2467 American Literature Pre-1861..... (3cr)
 ENGL 2468 American Literature
 1861 - Present..... (3cr)

Geography

GEOG 1400 Physical Geography (3cr)
 GEOG 1459 Cultural Geography..... (3cr)

Health

HLTH 1501 Personal Health and Wellness..... (3cr)

Health Administrative Specialist

HINS 1360 Medical Terminology..... (3cr)

History

HIST 1406 Western Civilization,
 Pre-History to 1500 (3cr)
 HIST 1407 Western Civilization,
 1500 to Present (3cr)
 HIST 1412 World History I,
 From the Beginning to 1500 (3cr)
 HIST 1413 World History II,
 1500 to Present (3cr)
 HIST 1472 U.S. History to 1865..... (3cr)
 HIST 1473 U.S. History Since 1865..... (3cr)

Math

MATH 1460 Intro to Statistics (4cr)
 MATH 1470 College Algebra..... (3cr)
 MATH 1472 Precalculus (5cr)
 MATH 1477 Calculus I..... (5cr)
 MATH 1478 Calculus II (5cr)
 MATH 1520 Introduction to College Algebra..... (3cr)

Marketing

MKTG 1011 Marketing Principles (3cr)

Music

MUSC 1403 American Popular Music (3cr)
 MUSC 1408 Community Band..... (1cr)
 MUSC 1421 Cantare' Concert Chorale..... (1cr)
 MUSC 1450 Music in World Cultures (3cr)
 MUSC 1457 Music Appreciation (3cr)
 MUSC 1459 Fundamentals of Music..... (3cr)

Nursing

NSGA 1110 Nursing Assistant (3cr)
 NSGA 1115 Home Health Aide..... (1cr)

Physical Education

PHED 1502 Circuit Training..... (2cr)
 PHED 1505 Fitness Walking (2cr)
 PHED 1521 Body Conditioning (2cr)
 PHED 1522 Weight Training (2cr)
 PHED 1524 Recreational Sampler (2cr)
 PHED 1583 Athletic Training..... (2cr)



Philosophy

PHIL 1411 World Religions (3cr)

Physics

PHYS 1401 College Physics I (4cr)

PHYS 1402 College Physics II..... (4cr)

PHYS 1407 Principles of Physics..... (3cr)

Political Science

POLS 1430 Introduction to Political Science..... (3cr)

POLS 1435 American Government & Politics (3cr)

Psychology

PSYC 2421 General Psychology (4cr)

PSYC 2431 Human Development (3cr)

Sociology

SOCL 1401 Introduction to Sociology (3cr)

SOCL 2411 Social Problems..... (3cr)

Spanish

SPAN 1401 Beginning Spanish I (4cr)

SPAN 1402 Beginning Spanish II (4cr)

SPAN 2401 Intermediate Spanish I (4cr)

SPAN 2404 Intermediate Spanish II..... (4cr)

Speech

SPCH 1410 Introduction to
Communication Studies..... (3cr)

SPCH 1421 Interpersonal Communication..... (3cr)

SPCH 1431 Fundamentals of
Public Speaking..... (3cr)

Theatre

THTR 1451 Introduction to Theatre (3cr)

Welding

WELD 1100 Intro to Welding..... (2cr)





Admissions

Contact us for
Scheduling campus tours
Enrollment information
Application packets
Program Information

E-mail us

askclc@clcmn.edu

To apply online or to check out our
admission services go to:
www.clcmn.edu/admissions

Brainerd Campus

501 West College Drive
Brainerd, MN 56401
800.933.0346 | 218.855.8037

Staples Campus

1830 Airport Road
Staples, MN 56479
800.247.6836 | 218.894.5175

Staples West Campus

10004 255th Avenue
Staples, MN 56479
218.894.5136



Pictured from top to bottom:
Brainerd Campus
Staples West Campus
Staples Main Campus

Academic Calendar 2014-2015

Fall Semester 2014

August 25 First Day of Classes
September 1 Labor Day Holiday
September 24 Student Success Day
October 16-17 School Vacation
October 20 2nd Half of Semester begins
November 11 Veterans Day Holiday
November 27-28 Thanksgiving Break
December 16-19 Fall Semester Finals
December 22 - January 9 Semester Break

Spring Semester 2015

January 12 First Day of Classes
January 19 Martin Luther King Jr. Holiday
February 16 Presidents' Day
March 6-13 Spring Break
March 16 Second Half of Semester begins
May 11-15 Spring Semester Finals

Summer Session 2015

June 1 First Day of Classes
July 3 Independence Day Observed
July 24 Last Day of Classes

Contact CLC

Brainerd Campus

1.800.933.0346
218.855.8000

Staples Campus

1.800.247.6836
218.894.5100

askclc@clcmn.edu

For up-to-date information visit CLC
Website: www.clcmn.edu

