



Instructional Divisions and Programs

Mark Vest, Vice President for Learning and Student Services

Arts and Sciences Dr. Eric Henderson, Dean

Anthropology	Geography
Art	Geology
Biology	History
Chemistry	Honors Colloquia
Developmental Education	Human Development
The Learning Cornerstone	Human Services
Developmental Reading	Humanities
Developmental Writing	Languages
Developmental Math	Mathematics
Study Skills	Music
ABE/GED (instruction)	Philosophy
Learning Assistance	Photography Technician
TLC Tutoring	Physics
Placement	Political Science
Student Writing Centers	Psychology
Early Childhood Development	Sociology
Education	Speech/Theatre
English	

Nursing and Allied Health

Ms. Peg Erdman, Dean

Allied Health - HES
Medical Assistant
Nursing Program
Nursing Assistant Training
Continuing Nursing Education
Paramedicine (EMT)
Pharmacy Technician

Apache County Programs

**Ms. Tamara Martin,
Coordinator**

Center Programming (Apache County)
Springerville/Eagar
St. Johns

Career and Technical Education

Ms. Peggy Belknap, Dean

Administration of Justice Studies	Health and Physical Education
Automotive Technology	Industrial Arts Technology
Business	Industrial Maintenance and Operations
Community and Corporate Learning	Law Enforcement Academy
Computer Information Systems	Mechatronics
Construction Technology	Welding
Drafting	Carl Perkins Vocational Funding
Cosmetology	
Dept. of Corrections	
Fire Science	

Information and Communications Technology (ICT) Programs

Dr. Wei Ma, Coordinator

Programs and Degrees

What Degree Programs are Available?

Northland Pioneer College offers an **Associate of Arts (AA)**, **Associate of Arts in Elementary Education (AAEE)**, **Associate of Business (ABUS)**, and **Associate of Science (AS)** degrees designed for students transferring into four-year college or university programs. The general education requirements for these degrees are specifically designed to transfer to Arizona's public universities, fulfilling their lower division general education requirements.

The **Associate of Applied Science (AAS)** Degree and the **Certificate of Applied Science (CAS)** are awarded at the completion of programs designed to prepare graduates for employment. **Certificate of Proficiency (CP)** and **Certificate of Completion (CRT)** are also awarded in certain occupation-specific programs. Not all degree programs are offered at every NPC location. Consult with an academic adviser for offerings at your campus or center, or information about a housing assistance scholarship if you need to re-locate to attend specific classes.

The **Associate of General Studies (AGS)** Degree is intended for nonmajors seeking greater flexibility in planning their education. The AGS degrees in Early Childhood and Special Needs Educational Assistant provide a student the flexibility of meeting work-related course mandates while also pursuing general education courses that may serve as a foundation for a bachelor's degree. Although many courses within these programs may transfer to a four-year college or university, students should not assume that all courses will transfer.

General Education Values

General education is central to Northland Pioneer College's purposes, its definition and its academic commitments. Through a general education program, the college commits students and professors to the pursuit of comprehensiveness in learning – to seeing the relationship of special interests to the larger academic and cultural contexts that we share. It offers vantage points from which to sharpen our awareness of the development of our own culture and its relationship to others. The search for an integrated understanding requires a general desire to learn, an energetic interest in the world and a willingness to put us in the place of those whose beliefs and outlooks are different from our own. A general education program, pursued by curious and empathic professors and students, provides a structure in which the accumulation of knowledge and the practice of disciplined, independent thinking can grow into comprehensive understanding, appreciation and reasoned value.

An effective general education program requires the exercise of thoughtful and precise writing, critical reading, quantitative thinking and processes of analysis and synthesis that underlie valid reasoning. Therefore, students must have a solid foundation in writing, reading, mathematics and critical thinking.

Studies in the traditional academic disciplines are built upon foundation skills in thought and communication, and lead students to grasp the conceptual frameworks that govern different fields of study. Such courses demonstrate that the study of specialized subject matter in any of the traditional knowledge areas – arts and humanities, mathematics, physical and biological sciences, social and behavioral sciences – is critical to the central dialogues of general education.

General education studies focus on the conceptual frameworks through which a thinker, a culture, or an academic discipline may approach an issue. We discover both the ordering power and the potential limitations of the fundamental models of understanding that have shaped our thinking throughout the history of civilization. We acknowledge the dependence of thought upon these models, judge them through comparison with alternative models from other thinkers and cultures, and yet are able to continue to participate with active, discerning commitment in the political, ethical and aesthetic life of the community.

The purpose of general education is to give each student pursuing an undergraduate degree the fundamental skills and the familiarity with various branches of knowledge that are associated with college and university education and the cultivation necessary for a lifetime of learning, problem solving and responsible, humane action.

Assessment at NPC: Faculty and Student Roles

Northland Pioneer College adheres to “the following published definition of assessment as drafted by the Director of the Assessment Forum at the American Association for Higher Education and refined by educators across the nation: (*NCA Staff Paper, 1996*)”

Assessment is an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public; setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing and interpreting evidence to determine how well performance matches those expectations and standards; and using the resulting information to document, explain and improve performance. When it is embedded effectively within larger institutional systems, assessment can help us focus our collective attention, examine our assumptions and create a shared academic culture dedicated to assessing and improving the quality of higher education (*AAHE Bulletin, November, 1995, p. 7*).

The principle of assessment, and use of assessment feedback for measuring and improving overall student academic achievement and institutional effectiveness, is an integral part of NPC. Assessment of Student Academic Achievement applies to all five major academic related missions of NPC: general education, transfer preparation education, basic skills/developmental education, customized education, and personal interest education. Assessment is integral to the matching of instructional resources to the diversity of student academic needs in a manner that is accountable to all stakeholders.

Faculty Role

Assessment of Student Academic Achievement includes the extent to which each instructional academic unit (department, etc.) actually contributes to the incremental learning of its students in:

1. Cognitive Learning (knowledge acquisition);
2. Behavioral Learning (skill acquisition); and
3. Affective Learning (attitudinal development).

Hence, over time each academic unit is expected to measure its performance in facilitating student academic achievement in these areas. Each academic unit's faculty members help collect assessment data through faculty-directed student activities designed to enhance learning.

Student Role

Students at NPC are expected to take an active role in their acquisition of knowledge, skill and attitude. This includes the student's responsibility in acting upon appropriate:

1. Academic guidance with respect to course and program enrollment;
2. Regular participation in faculty-structured learning activities including attendance at scheduled times;
3. Completion of assignments in a timely manner; and
4. Serious preparation for and completion of learning AND assessment activities including essays, papers and examinations.

Specifically, over the length of a course or program NPC instructional units will collect samples of students' work across the college district, for use in assessment of collective student academic achievement. Such collected samples of students' work generally will be from selected coursework required to complete a program or degree, or representative of work done up to a predetermined point along the way to program or degree completion. Similarly, students and alumni may also be asked to complete surveys reflecting aspects of student academic achievement related to their programs.

Student work submitted by faculty for assessment of student academic achievement across time and district will be reviewed confidentially. However, students are still expected to do their best, whether the work selected was used by the faculty toward a course grade and/or by the academic units as a broader assessment of NPC students' academic achievement.

Transfer Degree Programs

The **Associate of Arts (AA)**, **Associate of Arts in Elementary Education (AAEE)**, **Associate of Business (ABus)**, and **Associate of Science (AS)** degrees are designed for students intending to transfer into four-year college or university programs. The general education requirements of these degrees are specifically designed to transfer to Arizona's public universities to fulfill lower division general education course requirements.

All courses included in these degrees must transfer to the three Arizona public universities as direct equivalents, departmental elective credits or general elective credits. Students should work with their NPC academic adviser to facilitate a smooth and efficient transfer to a four-year college or university. Information about degrees and pathways, common courses, *Course Equivalency Guides*, transfer guides and Arizona college and university catalogs is available through an NPC academic adviser or at www.AZTransfer.com.

What is AGECE?

AGECE stands for Arizona General Education Curriculum, a state-wide 35-credit block of lower division courses that fulfill general education requirements at Arizona public community colleges, Northern Arizona University (NAU), Arizona State University (ASU), and the University of Arizona (U of A).

AGECE is the best way to make your credits count for most transfer degrees.

- **AGECE-A** satisfies ALL lower-division liberal studies requirements at all Arizona public universities.
- **AGECE-B** satisfies ALL lower division business studies requirements at all Arizona public universities.
- **AGECE-S** satisfies ALL lower division general education requirements in mathematics and math-intensive science programs at all Arizona public universities.

Why complete an AGECE?

- When you complete an AGECE, all admission requirements are waived at all Arizona public universities. This means that you are unconditionally admitted to any Arizona public university of your choice after completing an AGECE. Arizona residents need to have a minimum AGECE GPA of 2.5. This does not mean that they will accept ALL transferable courses. Please see an adviser to discuss which courses will be counted toward the university's graduation requirements.
- Save money by completing your lower-division requirements at NPC. On average, Northland Pioneer College tuition rates are about one-third of the Arizona public universities' tuition.

- Classes are generally smaller than university freshman and sophomore liberal studies classes.
- If you have high school concurrent enrollment credits, transfer credits from another accredited college or university and/or CLEP credits that satisfy our General Education requirements, these credits may be counted toward an AGECE. An academic adviser can assist in determining whether those credits can be applied toward AGECE requirements.
- Students transferring to NPC from other institutions must complete a minimum of 15 credits of AGECE courses at NPC.

What happens if you don't complete an AGECE block?

- You will need to meet ALL standard university admission requirements.
- You will need to complete university requirements, which may or may not be the same as Northland Pioneer College's General Education requirements.
- Your General Education courses will be evaluated on a course-by-course basis using the Course Equivalency Guide (CEG) and may not meet the specific general education requirements at the university.

University Transfer Agreements



NPC partners with other regionally-accredited colleges and universities, both within and outside of Arizona, through articulation agreements that assist students make a smooth transition from NPC to a participating 4-year institution without having to duplicate coursework. NPC students participating in transfer agreements are able to fulfill the four-year college's requirements by completing articulated courses at NPC.

Students interested in learning more about transfer opportunities should contact an NPC academic adviser for more information regarding the partnerships available to NPC students. A listing of current transfer agreements can be found at www.npc.edu/transfer-agreements.

Please note that articulation agreements are subject to change without notice. Students are encouraged to meet as early as possible and periodically with an academic adviser both at NPC and at the transfer institution to confirm choice of classes and to develop an education plan for transfer.

It is the final responsibility of the student to successfully meet all transfer requirements.

SUN numbers

NPC courses that transfer directly to other Arizona public community colleges and three state universities now have an additional notation in the NPC class schedule: the **Shared Unique Number (SUN)**. The SUN number consists of the  symbol followed by a unique three-letter prefix and four-digit course number. For example, NPC offers its transfer course General Biology I with the designation BIO 181. Now the listing also includes its SUN number,  BIO 1181.

Watch for SUN numbers. When you enroll in an NPC course having this unique identifier, you know those class credits will be accepted by the three Arizona state universities and community colleges. For additional information about the SUN System, visit www.azsunsystem.com.

After January 2012, SUN course numbers will be included on your college transcript.

Definitions

The terms below are used in the degree program descriptions in the pages that follow:

General Education Requirements: Courses, typically mathematics, English and others, from a predetermined list of discipline studies (included within each degree or program description) that provide students with a broad knowledge base.

Core Requirements: Courses specifically selected to educate the student in the essential knowledge of the individual program.

Required Electives: Courses specifically selected to supplement and expand the student's knowledge base in the individual program.

Unrestricted Electives: Any unduplicated course(s) at the 100-level or higher that the student may wish to select.

Associate of Arts (AA)

About this Degree

The **Associate of Arts (AA) degree** offers foundational education that enhances good communications skills and provides wide general knowledge. The AA is the basis for a wide range of bachelor degree programs and careers in fields such as languages, literature, political science, and more.

The **Associate of Arts degree is a transfer degree** designed for students planning to continue their education by transferring to one of the three Arizona public universities. The **general education component** of our AA degree fulfills the requirements of the Arizona General Education Curriculum (AGECE-A). When completed, the AGECE-A will transfer to any

of the three public Arizona state universities as a block meeting all lower division general education requirements. (see *What is AGECE?* - page 48)

NPC Requirements

- The Associate of Arts (AA) degree requires a minimum of 64 hours of course credits with a grade of “C” or better in all courses and a cumulative grade point average of 2.0 on a 4.0 scale.
- Some courses have placement requirements or prerequisites that may result in coursework beyond 64 credits. These courses, too, require a grade of “C” or better. For information about prerequisites, see an NPC academic adviser.
- In most general education courses, special emphasis is placed on developing written communication skills with intensive writing requirements. Race and ethnic issue awareness is embedded throughout the general education requirements. Specific courses, as noted, meet the requirement for Contemporary Global/International or Historical Awareness.

Degree Requirements • 64 credits

■ General Education Requirements • 35 credits

Completion of the 35 general education course credits fulfills requirements for the Arizona General Education Education Curriculum (AGECE-A) for the Associate of Arts degree. (see *What is AGECE?* - page 48)

English • 6 credits

ENL 101 College Composition I3 credit
 ENL 102 College Composition II.....3 credit

Mathematics • 3 credits

Select one of the following, or a mathematics course for which MAT 142 or MAT 152 is a prerequisite.

MAT 142 College Mathematics
 with Contemporary Applications3 credit
 MAT 152 Advanced Algebra3 credit

Arts and Humanities • 9 credits

Select three courses from at least two disciplines.

ART 101 Understanding Art.....3 credit
 ART 115 Art History I.....3 credit
 ART 116 Art History II.....3 credit
 ART 215 Native American Art.....3 credit
 ENL 220 World Literature I3 credit
 ENL 221 World Literature II3 credit
 ENL 224 English Literature I.....3 credit
 ENL 225 English Literature II3 credit
 ENL 230 American Literature I.....3 credit
 ENL 231 American Literature II3 credit
 HUM 150 Humanities in the Western World I.....3 credit
 HUM 151 Humanities in the Western World II3 credit
 MUS 150 Music Appreciation3 credit

MUS 250 World Music3 credit
 PHL 101 Introduction to Philosophy3 credit
 PHL 105 Introduction to Ethics3 credit
 SPT 130 Introduction to Theatre.....3 credit
 SPT 150 Introduction to Film3 credit
 SPT 155 History of Television3 credit

Physical and Biological Sciences • 8 credits

Select two courses. Students may transfer either CHM 130 or CHM 151, but not both; therefore, taking CHM 130 and CHM 151 will not satisfy the 8-credit requirement.

BIO 100 Biology Concepts4 credit
 BIO 105 Environmental Biology4 credit
 BIO 160 Introduction to Human Anatomy
 and Physiology I.....4 credit
 BIO 181 General Biology I.....4 credit
 BIO 182 General Biology II4 credit
 CHM 130 Fundamental Chemistry4 credit
 CHM 151 General Chemistry I.....4 credit
 CHM 152 General Chemistry II4 credit
 GEO 111 Physical Geography4 credit
 GLG 101 Introduction to Geology I - Physical.....4 credit
 GLG 102 Introduction to Geology II - Historical....4 credit
 PHY 113 General Physics I4 credit
 PHY 114 General Physics II4 credit

Social and Behavioral Sciences • 9 credits

Pick three courses from at least two disciplines. Select at least one asterisk (*) course to meet requirements for Contemporary Global, International or Historical Awareness.

*ANT 102 Cultural Anthropology3 credit
 ANT 120 Buried Cities and Lost Tribes3 credit
 BUS 140 Principles of Economics - Macro3 credit
 BUS 141 Principles of Economics - Micro3 credit
 *GEO 110 World Regional Geography3 credit
 GEO 120 Human Geography3 credit
 *HIS 105 U.S. History to 18773 credit
 *HIS 106 U.S. History since 1877.....3 credit
 *HIS 155 Western Civilization to 17003 credit
 *HIS 156 Western Civilization since 17003 credit
 POS 110 American Government.....3 credit
 PSY 101 Introduction to Psychology3 credit
 PSY 200 Psychology of Adjustment3 credit
 PSY 240 Developmental Psychology.....3 credit
 SOC 120 General Sociology3 credit
 SOC 121 Social Problems in America.....3 credit
 SOC 130 Racial, Ethnic and Gender Relations
 in Modern Society.....3 credit
 SOC 225 Sociology of the Family.....3 credit

■ Electives • 29 credits

An additional 29 credits should be chosen carefully based on lower division and common course requirements for majors at the college or university to which the student plans to transfer. To ensure you are selecting appropriate electives for transfer, see your NPC academic adviser.

The **electives component** must consist of credits that transfer to all three public Arizona universities as defined in the *Course Equivalency Guide* for the year in which the course is completed. Access to information about degrees and pathways, common courses, *Course Equivalency Guides*, and Arizona college and university catalogs is available through an academic adviser or directly on the Internet at www.AZTransfer.com.

Associate of Arts in Elementary Education (AAEE)

About this Degree

If you enjoy children, feel you have a talent for teaching and you want to help improve the world, the **Associate of Arts in Elementary Education (AAEE)** is a degree program you should consider. The AAEE degree is a **transfer degree** providing you with foundational skills in the elementary teaching field while preparing you for initial teacher certification programs at the state's three public universities. The **general education component** of the AAEE degree is specifically designed to fulfill the lower division general education requirements at NAU, ASU and UofA.

Additionally, with your AAEE degree in hand, you meet current elementary school requirements to be a classroom instructional assistant. You have the credentials to work in your chosen setting while completing your bachelor's degree.

NPC Requirements

- The Associate of Arts in Elementary Education degree requires a minimum of 64 hours of course credits with a "C" or better in all courses and a cumulative grade point average of 2.0 on a 4.0 scale.
- Some courses have **placement requirements** or **prerequisites** that may result in coursework beyond 64 credits. These courses, too, require a grade of "C" or better. For information about prerequisites, see an NPC academic adviser.
- In most general education courses, special emphasis is placed on developing written communication skills with intensive writing requirements. Race and ethnic issue awareness is embedded throughout the general education requirements. Specific courses, as noted, meet the requirement for Contemporary Global/International or Historical Awareness.

Degree Requirements • 64 credits

■ General Education Requirements • 35 credits

Completion of the 35 general education course credits fulfills requirements for the Arizona General Education Education Curriculum (AGEC-A). (see *What is AGECE?* – page 48)

English • 6 credits

ENL 101 College Composition I	3 credit
ENL 102 College Composition II.....	3 credit

Mathematics • 3 credits

Select one of the following, or a mathematics course for which MAT 142 or MAT 152 is a prerequisite.

MAT 142 College Mathematics with Contemporary Applications	3 credit
MAT 152 Advanced Algebra	3 credit

Arts and Humanities • 9 credits

Select three courses from at least two disciplines.

ART 101 Understanding Art.....	3 credit
ART 115 Art History I.....	3 credit
ART 116 Art History II.....	3 credit
ART 215 Native American Art.....	3 credit
ENL 220 World Literature I	3 credit
ENL 221 World Literature II	3 credit
ENL 224 English Literature I.....	3 credit
ENL 225 English Literature II	3 credit
ENL 230 American Literature I.....	3 credit
ENL 231 American Literature II	3 credit
HUM 150 Humanities in the Western World I.....	3 credit
HUM 151 Humanities in the Western World II	3 credit
MUS 150 Music Appreciation	3 credit
MUS 250 World Music	3 credit
PHL 101 Introduction to Philosophy	3 credit
PHL 105 Introduction to Ethics	3 credit
SPT 130 Introduction to Theatre.....	3 credit
SPT 150 Introduction to Film	3 credit
SPT 155 History of Television	3 credit

Physical and Biological Sciences • 8 credits

Select two courses. Students may transfer *either* CHM 130 or CHM 151, **but not both**; therefore, taking CHM 130 and CHM 151 will not satisfy the 8-credit requirement.

BIO 100 Biology Concepts	4 credit
BIO 105 Environmental Biology	4 credit
BIO 160 Introduction to Human Anatomy and Physiology I.....	4 credit
BIO 181 General Biology I.....	4 credit
BIO 182 General Biology II	4 credit
CHM 130 Fundamental Chemistry	4 credit
CHM 151 General Chemistry I.....	4 credit
CHM 152 General Chemistry II	4 credit
GEO 111 Physical Geography.....	4 credit

GLG 101 Introduction to Geology I - Physical.....	4 credit
GLG 102 Introduction to Geology II - Historical....	4 credit
PHY 113 General Physics I	4 credit
PHY 114 General Physics II	4 credit

Social and Behavioral Sciences • 9 credits

Select three courses from at least two disciplines. Select at least one asterisk (*) course to meet requirements for Contemporary Global/International or Historical Awareness.

*ANT 102 Cultural Anthropology	3 credit
ANT 120 Buried Cities and Lost Tribes	3 credits
BUS 140 Principles of Economics - Macro.....	3 credit
BUS 141 Principles of Economics - Micro.....	3 credit
*GEO 110 World Regional Geography	3 credit
GEO 120 Human Geography.....	3 credit
*HIS 105 U.S. History to 1877	3 credit
*HIS 106 U.S. History since 1877.....	3 credit
*HIS 155 Western Civilization to 1700	3 credit
*HIS 156 Western Civilization since 1700	3 credit
POS 110 American Government.....	3 credit
PSY 101 Introduction to Psychology	3 credit
PSY 200 Psychology of Adjustment.....	3 credit
PSY 240 Developmental Psychology.....	3 credit
SOC 120 General Sociology.....	3 credit
SOC 121 Social Problems in America.....	3 credit
SOC 130 Racial, Ethnic and Gender Relations in Modern Society.....	3 credit
SOC 225 Sociology of the Family.....	3 credit

Core Requirements • 15 credits

You must complete all five courses.

EDU 200 Introduction to Education	3 credit
EDU 220 Diversity in Education.....	3 credit
EDU 222 Introduction to Special Education.....	3 credit
MAT 161 Algebra-based Mathematics for Elementary Teachers I	3 credit
MAT 162 Algebra-based Mathematics for Elementary Teachers II.....	3 credit

Required Electives • 14 credits

- Successful completion of one of the following:

EDU 272 Educational Psychology	3 credit
EDU 276 Managing the Learning Environment	3 credit
EDU 291 Children’s Literature.....	3 credit
ENL 291 Children’s Literature	3 credit
- Plus, you must successfully complete all three courses:

CIS 105 Computer Applications and Information Technology	3 credit
POS 221 Arizona Constitution	1 credit
POS 222 U.S. Constitution	1 credit
- Plus, successful completion of six credits of unduplicated electives from the General Education Requirements list.

Associate of Business (ABus)

About this Degree

No matter what field you may decide to pursue, it is helpful to begin with an understanding of business. The **Associate of Business (ABus) degree** is the foundation for many careers and a way to gain an edge and the critical knowledge it entails.

The NPC Associate of Business degree is a transfer degree.

The general education component of the ABus degree fulfills the Arizona General Education Curriculum (AGEC-B). When completed, the AGECE-B will transfer to the three public Arizona state universities as a block that meets **all lower division general education requirements.**

(see *What is AGECE?* – page 48)

NPC Requirements

- The Associate of Business (ABus) degree requires a minimum of 64 hours of course credits with a grade of “C” or better in all courses and a cumulative grade point average of 2.0 on a 4.0 scale.
- Graduates must complete CIS 105 and at least 33 general education credits.
- Some courses have **placement requirements or prerequisites** that may result in coursework beyond 64 credits. These courses, too, require a grade of “C” or better. For information about prerequisites, see an NPC academic adviser.
- In most general education courses, special emphasis is placed on developing written communication skills with intensive writing requirements. Race and ethnic issue awareness is embedded throughout the general education requirements. Specific courses, as noted, meet the requirement for Contemporary Global/International or Historical Awareness.

Degree Requirements • 64 credits

General Education Requirements • 36 credits

Completion of the 36 general education course credits fulfills requirements for the Arizona General Education Curriculum (AGECE-B) for the Associate of Business degree. (see *What is AGECE?* – page 48)

English • 6 credits

ENL 101 College Composition I	3 credit
ENL 102 College Composition II.....	3 credit

Mathematics • 4 credits

MAT 211 Technical Calculus.....	4 credit
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(Or MAT 221 or higher mathematics course for which MAT 211 is a prerequisite)

Arts and Humanities • 6 credits

Select two courses from two different disciplines:

ART 101 Understanding Art.....	3 credit
ART 115 Art History I.....	3 credit
ART 116 Art History II.....	3 credit
ART 215 Native American Art.....	3 credit
ENL 220 World Literature I.....	3 credit
ENL 221 World Literature II.....	3 credit
ENL 224 English Literature I.....	3 credit
ENL 225 English Literature II.....	3 credit
ENL 230 American Literature I.....	3 credit
ENL 231 American Literature II.....	3 credit
HUM 150 Humanities in the Western World I.....	3 credit
HUM 151 Humanities in the Western World II.....	3 credit
MUS 150 Music Appreciation.....	3 credit
MUS 250 World Music.....	3 credit
PHL 101 Introduction to Philosophy.....	3 credit
PHL 105 Introduction to Ethics.....	3 credit
SPT 130 Introduction to Theatre.....	3 credit
SPT 150 Introduction to Film.....	3 credit
SPT 155 History of Television.....	3 credit

Physical and Biological Sciences • 8 credits

Select two courses. Students may transfer *either* CHM 130 or CHM 151, **but not both**; therefore, taking CHM 130 and CHM 151 will not satisfy the 8-credit requirement.

BIO 100 Biology Concepts.....	4 credit
BIO 105 Environmental Biology.....	4 credit
BIO 160 Introduction to Human Anatomy and Physiology I.....	4 credit
BIO 181 General Biology I.....	4 credit
BIO 182 General Biology II.....	4 credit
CHM 130 Fundamental Chemistry.....	4 credit
CHM 151 General Chemistry I.....	4 credit
CHM 152 General Chemistry II.....	4 credit
GEO 111 Physical Geography.....	4 credit
GLG 101 Introduction to Geology I - Physical.....	4 credit
GLG 102 Introduction to Geology II - Historical.....	4 credit
PHY 113 General Physics I.....	4 credit
PHY 114 General Physics II.....	4 credit

Social and Behavioral Sciences • 6 credits

Select two courses from at least two disciplines. Make at least one selection an asterisk (*) course to meet requirements for Contemporary Global/International or Historical Awareness.

*ANT 102 Cultural Anthropology.....	3 credit
ANT 120 Buried Cities and Lost Tribes.....	3 credit
BUS 140 Principles of Economics - Macro.....	3 credit
BUS 141 Principles of Economics - Micro.....	3 credit
*GEO 110 World Regional Geography.....	3 credit
GEO 120 Human Geography.....	3 credit
*HIS 105 U.S. History to 1877.....	3 credit
*HIS 106 U.S. History since 1877.....	3 credit
*HIS 155 Western Civilization to 1700.....	3 credit
*HIS 156 Western Civilization since 1700.....	3 credit

POS 110 American Government.....	3 credit
PSY 101 Introduction to Psychology.....	3 credit
PSY 200 Psychology of Adjustment.....	3 credit
PSY 240 Developmental Psychology.....	3 credit
SOC 120 General Sociology.....	3 credit
SOC 121 Social Problems in America.....	3 credit
SOC 130 Racial, Ethnic & Gender Relations in Modern Society.....	3 credit
SOC 225 Sociology of the Family.....	3 credit

Computer Science • 3 credits

CIS 105 Computer Applications and Information Technology.....	3 credit
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General Electives Options • 3 credits

Select one additional course from either the Arts and Humanities or Social and Behavioral Sciences lists to satisfy the requirement of 36 general education credits.

■ Electives • 28 credits

An additional 28 credits should be chosen carefully based on lower division and common course requirements for majors at the college or university to which the student plans to transfer. To ensure you are selecting appropriate electives for transfer, see your NPC academic adviser.

The **electives component** must consist of credits that transfer to all three public Arizona universities as defined in the *Course Equivalency Guide* for the year in which the course is completed. Access to information about degrees and pathways, common courses, *Course Equivalency Guides*, and Arizona college and university catalogs is available through an academic adviser or directly on the Internet at www.AZTransfer.com.

Associate of Science (AS)

About this Degree

The **Associate of Science (AS) degree** helps develop comprehensive knowledge and good communications skills, while providing a firm grounding in mathematics and the natural sciences. An Associate of Science degree is foundational for students looking toward biological, health and medical undergraduate degrees. Students who plan on going into business, engineering or agriculture may also want to consider this degree.

The **Associate of Science degree is a transfer degree** designed for students planning to continue their education by transferring to one of the three Arizona public universities. The **general education component** of our AS degree fulfills all the requirements of the Arizona General Education Curriculum (AGEC-S). When completed, the AGEC-S will transfer to any of the three public Arizona state universities as a block meeting all lower division general education requirements. (see *What is AGEC?* – page 48)

NPC Requirements

- The Associate of Science (AS) degree requires a minimum of **64 hours of course credits** with a grade of “C” or better in all courses and a cumulative grade point average of 2.0 on a 4.0 scale.
- Some courses have **placement requirements** or **prerequisites** that may result in coursework beyond 64 credits. These courses, too, require a grade of “C” or better. For information about prerequisites, see an NPC academic adviser.
- In most general education courses, special emphasis is placed on developing written communication skills with intensive writing requirements. Race and ethnic issue awareness is embedded throughout the general education requirements. Specific courses, as noted, meet the requirement for Contemporary Global/International or Historical Awareness.

Degree Requirements • 64 credits

■ General Education Requirements • 36 credits

Completion of the 36 general education course credits fulfills requirements for the Arizona General Education Education Curriculum (AGEC-S) for the Associate of Science degree. (see *What is AGECS?* – page 48)

English • 6 credits

ENL 101 College Composition I	3 credit
ENL 102 College Composition II.....	3 credit

Mathematics • 4 credits

MAT 221 Calculus I (or a mathematics course for which MAT 221 is a prerequisite)	4 credit
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Arts and Humanities • 6 credits

Select two courses from at least two disciplines.

ART 101 Understanding Art.....	3 credit
ART 115 Art History I.....	3 credit
ART 116 Art History II.....	3 credit
ART 215 Native American Art.....	3 credit
ENL 220 World Literature I	3 credit
ENL 221 World Literature II	3 credit
ENL 224 English Literature I.....	3 credit
ENL 225 English Literature II	3 credit
ENL 230 American Literature I.....	3 credit
ENL 231 American Literature II	3 credit
HUM 150 Humanities in the Western World I.....	3 credit
HUM 151 Humanities in the Western World II	3 credit
MUS 150 Music Appreciation	3 credit
MUS 250 World Music.....	3 credit
PHL 101 Introduction to Philosophy	3 credit
PHL 105 Introduction to Ethics.....	3 credit
SPT 130 Introduction to Theatre.....	3 credit
SPT 150 Introduction to Film	3 credit
SPT 155 History of Television	3 credit

Physical and Biological Sciences • 8 credits

Select two courses from the SAME discipline.

BIO 181 General Biology I	4 credit
BIO 182 General Biology II	4 credit
CHM 151 General Chemistry I	4 credit
CHM 152 General Chemistry II	4 credit

Social and Behavioral Sciences • 6 credits

Select two courses from two different disciplines, with at least one asterisk (*) course to meet requirements for Contemporary Global/International or Historical Awareness.

*ANT 102 Cultural Anthropology	3 credit
ANT 120 Buried Cities and Lost Tribes	3 credit
BUS 140 Principles of Economics - Macro	3 credit
BUS 141 Principles of Economics - Micro	3 credit
*GEO 110 World Regional Geography	3 credit
GEO 120 Human Geography.....	3 credit
*HIS 105 U.S. History to 1877	3 credit
*HIS 106 U.S. History since 1877.....	3 credit
*HIS 155 Western Civilization to 1700	3 credit
*HIS 156 Western Civilization since 1700	3 credit
POS 110 American Government.....	3 credit
PSY 101 Introduction to Psychology	3 credit
PSY 200 Psychology of Adjustment.....	3 credit
PSY 240 Developmental Psychology.....	3 credit
SOC 120 General Sociology.....	3 credit
SOC 121 Social Problems in America.....	3 credit
SOC 130 Racial, Ethnic & Gender Relations in Modern Society.....	3 credit
SOC 225 Sociology of the Family.....	3 credit

Science/Mathematics Option • 6 credits

Select two courses not taken to satisfy Physical and Biological Sciences requirements.

BIO 105 Environmental Biology	4 credit
BIO 160 Introduction to Human Anatomy and Physiology I.....	4 credit
BIO 181 General Biology I.....	4 credit
BIO 182 General Biology II	4 credit
BIO 201 Human Anatomy and Physiology I.....	4 credit
BIO 202 Human Anatomy and Physiology II	4 credit
BIO 205 Microbiology.....	4 credit
CHM 151 General Chemistry I.....	4 credit
CHM 152 General Chemistry II	4 credit
GEO 111 Physical Geography.....	4 credit
GLG 101 Introduction to Geology I - Physical.....	4 credit
GLG 102 Introduction to Geology II - Historical....	4 credit
MAT 231 Calculus II	4 credit
MAT 241 Calculus III	4 credit
MAT 261 Introduction to Differential Equations ...	4 credit
PHY 113 General Physics I	4 credit
PHY 114 General Physics II	4 credit

■ Electives • 28 credits

An additional 28 credits should be chosen carefully based on lower division and common course requirements for majors at

the college or university to which the student plans to transfer. To ensure you are selecting appropriate electives for transfer, see your NPC academic adviser.

The **electives component** must consist of credits that transfer to all three public Arizona universities as defined in the *Course Equivalency Guide* for the year in which the course is completed. Access to information about degrees and pathways, common courses, *Course Equivalency Guides*, and Arizona college and university catalogs is available through an academic adviser or directly on the Internet at www.AZTransfer.com.

Associate of General Studies Degree Programs

About the General Studies Degrees

The **Associate of General Studies (AGS) Degree** is the most flexible of the degrees offered at NPC. With this degree you learn the basics of mathematics, English, science, history and a wide variety of other subjects, allowing you the chance to explore many different disciplines while enhancing your personal development with the equivalent of two years of post-high school education.

While an AGS degree does not totally fulfill all AGECE transfer requirements, many courses included in the AGS degree program transfer directly to the three Arizona public universities. Work with your NPC academic adviser to ensure courses meet your specific educational and career goals.

In addition to the **Associate of General Studies (AGS) degree** NPC offers three specialized AGS degrees in **Early Childhood Development** and one in **Special Needs Educational Assistant**. These specialized AGS degrees can provide you with recognized learning credentials to provide a student the flexibility of meeting work-related course mandates while also pursuing general education courses that may serve as the foundation for a bachelor's degree.

Although many individual courses within these degree programs will transfer to four-year colleges and universities, students should not assume that all courses will transfer. Work with your academic adviser to ensure courses meet your specific educational and career goals.

NPC Requirements

- The **Associate of General Studies (AGS) degree** requires **64 hours of course credits (66 for the Early Childhood Management degree)** with a cumulative grade point average of 2.0 on a 4.0 scale.
- Students must complete 31 general education credits (listed on pages 55-56).
- Some courses have **placement requirements** or **prerequisites** that may result in coursework beyond the

64/66 credits. For information about prerequisites, see an NPC academic adviser.

- Students must meet with an NPC academic adviser to select a program of courses that will best meet the student's goals.
- Students with an associate or higher degree will not be considered for this program.
- In most general education courses, special emphasis is placed on developing written communication skills with intensive writing requirements. Race and ethnic issue awareness is embedded throughout the general education requirements.

AGS Degree General Education Requirements • 31 credits

All AGS degrees require completion of 31 general education course credits from the following:

English • 6 credits

- ENL 101 College Composition I 3 credit
- Plus one of the following:
- ENL 102 College Composition II..... 3 credit
- ENL 109 Technical Writing..... 3 credit

Mathematics • 3 credits

Select one of the following, or a higher mathematics course for which MAT 112 is a prerequisite.

- MAT 105 Mathematics for General Education..... 3 credit
- MAT 112 Algebra II: Intermediate..... 3 credit

■ Discipline Studies

Arts and Humanities • 6 credits

Select two courses from at least two disciplines.

- ART 101 Understanding Art..... 3 credit
- ART 115 Art History I..... 3 credit
- ART 116 Art History II..... 3 credit
- ART 215 Native American Art..... 3 credit
- ENL 220 World Literature I 3 credit
- ENL 221 World Literature II 3 credit
- ENL 224 English Literature I..... 3 credit
- ENL 225 English Literature II 3 credit
- ENL 230 American Literature I..... 3 credit
- ENL 231 American Literature II 3 credit
- HUM 150 Humanities in the Western World I..... 3 credit
- HUM 151 Humanities in the Western World II 3 credit
- MUS 150 Music Appreciation 3 credit
- MUS 250 World Music 3 credits
- PHL 101 Introduction to Philosophy 3 credit
- PHL 105 Introduction to Ethics 3 credit
- SPT 130 Introduction to Theatre..... 3 credit
- SPT 150 Introduction to Film 3 credit
- SPT 155 History of Television 3 credit

Physical and Biological Sciences • 4 credits

- BIO 100 Biology Concepts 4 credit
- BIO 105 Environmental Biology 4 credit
- BIO 160 Introduction to Human Anatomy
and Physiology I..... 4 credit
- BIO 181 General Biology I..... 4 credit
- BIO 182 General Biology II 4 credit
- CHM 130 Fundamental Chemistry 4 credit
- CHM 151 General Chemistry I..... 4 credit
- CHM 152 General Chemistry II 4 credit
- GEO 111 Physical Geography..... 4 credit
- GLG 101 Introduction to Geology I - Physical..... 4 credit
- GLG 102 Introduction to Geology II - Historical.... 4 credit
- PHY 113 General Physics I 4 credit
- PHY 114 General Physics II 4 credit

Social and Behavioral Sciences • 6 credits

Select two courses from two disciplines.

- *ANT 102 Cultural Anthropology 3 credit
- ANT 120 Buried Cities and Lost Tribes 3 credit
- BUS 140 Principles of Economics - Macro 3 credit
- BUS 141 Principles of Economics - Micro 3 credit
- *GEO 110 World Regional Geography 3 credit
- GEO 120 Human Geography..... 3 credit
- *HIS 105 U.S. History to 1877 3 credit
- *HIS 106 U.S. History since 1877..... 3 credit
- *HIS 155 Western Civilization to 1700 3 credit
- *HIS 156 Western Civilization since 1700 3 credit
- POS 110 American Government..... 3 credit
- PSY 101 Introduction to Psychology 3 credit
- PSY 200 Psychology of Adjustment..... 3 credit
- PSY 240 Developmental Psychology..... 3 credit
- SOC 120 General Sociology..... 3 credit
- SOC 121 Social Problems in America..... 3 credit
- SOC 130 Racial, Ethnic & Gender Relations
in Modern Society..... 3 credit
- SOC 225 Sociology of the Family..... 3 credit

Courses marked with an asterisk (*) meet requirements for Contemporary Global/International or Historical Awareness.

Additional Discipline Studies • 6 credits

Select a minimum of six additional credits from the Discipline Studies courses, or from these courses.

Foreign Language

- FRE 101 Elementary French I..... 4 credit
- FRE 102 Elementary French II..... 4 credit
- GER 101 Elementary German I 4 credit
- GER 102 Elementary German II..... 4 credit
- SPA 101 Elementary Spanish I..... 4 credit
- SPA 102 Elementary Spanish II 4 credit

Computer Science

- CIS 105 Computer Applications and Information
Technology 3 credit

Verbal Communication

- SPT 120 Public Speaking..... 3 credit

Associate of General Studies

Degree Requirements • 64 credits

To complete an Associate of General Studies degree a student must complete the 31 general education credits (from the AGS General Education Requirements listed on page 55-56) and 33 credits of unrestricted electives from any unduplicated courses at the 100 or higher level.

■ **General Education Requirements • 31 credits**

As listed in the AGS General Education Requirements on page 55-56.

■ **Electives • 33 credits**

From any unduplicated courses at the 100 or higher level.

Associate of General Studies

Early Childhood Infant/Toddler

Degree Requirements • 64 credits

Completing an AGS Early Childhood Infant/Toddler degree requires satisfactory completion of 64 credits including 31 general education credits from the AGS General Education Requirements, listed on page 55-56, 29 Core Requirement credits and 4 credits of unduplicated electives from any area, with the exception of 199s and 299s.

■ **General Education Requirements • 31 credits**

As listed in the AGS General Education Requirements on page 55-56.

■ **Core Requirements • 29 credits**

- ECD 100 Providing a Healthy Environment..... 1 credit
- ECD 101 The Child's Total Learning Environment 1 credit
- ECD 102 Ensuring a Safe Environment..... 1 credit
- ECD 103 Planned Arrangements and Schedules..... 1 credit
- ECD 108 Techniques for Observing Children 1 credit
- ECD 110 Building Relationships with Parents
Through Communication..... 1 credit
- ECD 112 Enhancing Family Involvement..... 1 credit
- ECD 143 Inclusion of Children
With Special Needs..... 2 credit

ECD 154 Environments for Infants and Toddlers...	1 credit
ECD 155 Curriculum and Learning Materials for Infants.....	1 credit
ECD 156 Curriculum and Learning Materials for Toddlers.....	1 credit
ECD 158 Developing and Utilizing Observations Skills in Infant and Toddler Programs.....	1 credit
ECD 159 Recordkeeping Skills for Infant/Toddler Care.....	1 credit
ECD 163 Cognitive Development of Infants and Toddlers.....	1 credit
ECD 164 Practical Applications of Cognitive Development.....	1 credit
ECD 165 Language Development of Infants and Toddlers.....	1 credit
ECD 166 Encouraging Autonomy and Positive Self-Concept.....	1 credit
ECD 167 Guidance and Discipline of Infants and Toddlers.....	1 credit
ECD 168 Enhancing Social Competence of Infants/Toddlers.....	1 credit
ECD 169 Sensorimotor Learning in Infancy and Toddlerhood.....	1 credit
ECD 172 Physical Development in Infancy and Toddlerhood.....	1 credit
ECD 175 Professionalism.....	1 credit
ECD 200 Introduction to Early Childhood Education.....	3 credit
ECD 250 Child Development I.....	3 credit

■ **Required Electives • 4 credits**

Four credits of **unduplicated** electives must be taken from any area (with the exception of 199s and 299s).

Associate of General Studies Early Childhood Management

Degree Requirements • 66 credits

Completing an AGS Early Childhood Management degree requires satisfactory completion of 66 credits including 31 general education credits from the AGS General Education Requirements listed on page 55-56 and 35 Core Requirement credits.

■ **General Education Requirements
• 31 credits**

As listed in the AGS General Education Requirements on page 55-56.

■ **Core Requirements • 35 credits**

ECD 100 Providing a Healthy Environment.....	1 credit
ECD 102 Ensuring a Safe Environment.....	1 credit
ECD 103 Planned Arrangements and Schedules.....	1 credit
ECD 105 Guidance Principles for Encouraging Self Discipline.....	1 credit
ECD 108 Techniques for Observing Children.....	1 credit
ECD 110 Building Relationships with Parents Through Communication.....	1 credit
ECD 111 Supporting the Growth and Education of Parents.....	1 credit
ECD 112 Enhancing Family Involvement.....	1 credit
ECD 120 Enhancing a Positive Self-Concept.....	1 credit
ECD 128 Incorporating the Children's Culture.....	1 credit
ECD 129 Planning and Implementing a Bilingual Program.....	1 credit
ECD 136 Understanding How Children Learn.....	1 credit
ECD 175 Professionalism.....	1 credit
ECD 198 Internship (Early Childhood Management).....	1 credit
ECD 200 Introduction to Early Childhood Education.....	3 credit
ECD 201 Exploring Early Childhood Program Philosophies.....	1 credit
ECD 211 Providing Food and Nutrition Services....	1 credit
ECD 231 Planning and Managing an Early Childhood Program.....	2 credit
ECD 232 Designing Indoor and Outdoor Environments.....	2 credit
ECD 233 Developing Policies and Procedures for Early Childhood Programs.....	2 credit
ECD 234 Staffing an Early Childhood Program.....	2 credit
ECD 235 Budgeting and Financial Management.....	2 credit
ECD 236 Marketing the Early Childhood Program.....	2 credit
ECD 237 Evaluating an Early Childhood Program.....	1 credit
ECD 250 Child Development I.....	3 credit

Associate of General Studies Early Childhood Preschool

Degree Requirements • 64 credits

Completing an AGS Early Childhood Preschool degree requires satisfactory completion of 64 credits including 31 general education credits from the AGS General Education Requirements listed on page 55-56, 29 Core Requirement credits and 4 credits from the list of Required Electives.

■ General Education Requirements • 31 credits

As listed in the AGS General Education Requirements on page 55-56.

■ Core Requirements • 29 credits

ECD 100 Providing a Healthy Environment.....	1 credit
ECD 101 The Child's Total Learning Environment	1 credit
ECD 102 Ensuring a Safe Environment.....	1 credit
ECD 103 Planned Arrangements and Schedules.....	1 credit
ECD 105 Guidance Principles for Encouraging SelfDiscipline.....	1 credit
ECD 108 Techniques for Observing Children	1 credit
ECD 110 Building Relationships with Parents Through Communication.....	1 credit
ECD 112 Enhancing Family Involvement.....	1 credit
ECD 113 Fostering Communication and Language Skills.....	1 credit
ECD 114 Beginning Mathematical Concepts	1 credit
ECD 115 Nutrition in Early Childhood I.....	1 credit
ECD 116 Sciencing and Discovery II	1 credit
ECD 117 Enhancing Questions and Problem-Solving Abilities.....	1 credit
ECD 118 Blocks in Early Childhood Programs.....	1 credit
ECD 120 Enhancing a Positive Self-Concept.....	1 credit
ECD 123 Music and Creative Movement.....	1 credit
ECD 124 Dramatic Play in the Early Childhood Setting	1 credit
ECD 125 Creative Media.....	1 credit
ECD 126 Large Muscle Development	1 credit
ECD 127 Small Muscle Development	1 credit
ECD 136 Understanding How Children Learn.....	1 credit
ECD 175 Professionalism.....	1 credit
ECD 200 Introduction to Early Childhood Education	3 credit
or	
EDU 200 Introduction to Education	3 credit
ECD 216 Transitions.....	1 credit
ECD 250 Child Development I.....	3 credit

■ Required Electives • 4 credits

Complete four credits from the following:

Any ECD courses not listed above in required core credits, with the exception of ECD 199's and ECD 299's.

EDU 200 Introduction to Education (if not taken as part of core).....	3 credit
EDU 201 Substitute Teaching in the Schools.....	3 credit
LAN 120 Conversational Navajo I.....	3 credit
LAN 121 Conversational Navajo II.....	3 credit
LAN 125 Conversational Apache I.....	3 credit
LAN 126 I Conversational Apache II.....	3 credit
LAN 160 Beginning American Sign Language.....	3 credit
LAN 161 Intermediate American Sign Language....	3 credit
POS 221 Arizona Constitution and Government ...	1 credit

Associate of General Studies Special Needs Educational Assistant

Degree Requirements • 64 credits

To complete an AGS Special Needs Educational Assistant degree requires satisfactory completion of 64 credits, including 31 general education credits from the AGS General Education Requirements listed on page 55-56, 21 Core Requirement credits and 12 credits from the list of Required Electives.

■ General Education Requirements • 31 credits

As listed in the AGS General Education Requirements on page 55-56.

■ Core Requirements • 21 credits

ECD 136 Understanding How Children Learn.....	1 credit
ECD 222 Young Children with Special Needs	3 credit
ECD 200 Introduction to Early Childhood Education	3 credit
or	
EDU 200 Introduction to Education	3 credit
ECD 250 Child Development I	3 credit
EDU 198 Internship (Occupational/Physical Therapy)	1 credit
EDU 198 Internship (Speech Therapy).....	1 credit
EDU 202 Occupational/Physical Therapy Educational Assistant.....	3 credit
EDU 203 Speech Therapy Educational Assistant....	3 credit
LAN 160 Beginning American Sign Language.....	3 credit

■ Required Electives • 12 credits

Select 12 unduplicated credits, 100 level or higher, from ECD/EDU/EMT/LAN/SPA courses as electives.

Index of AGS/AAS/CAS/CP Programs

AGS - Associate of General Studies • AAS - Associate of Applied Science • CAS - Certificate of Applied Science

CP - Certificate of Proficiency

Program	Awards	Program	Awards
Automotive Technology (ATO) . . . . .	.AAS/CAS	Education (EDU)	
Brake and Transmission Systems . . . . .	.CP	Educational Assistant	CAS/CP
Drive Train, Suspension and Steering, HVAC . . . . .	.CP	Special Needs Educational Assistant	AGS/AAS/CAS/CP
Electrical and Electronics Systems . . . . .	.CP	Fire Science (FRS)	AAS/CAS/CP
Engine Performance. . . . .	.CP	Human Services (HUS)	
Engine Repair . . . . .	.CP	Residential Child/Youth Care Assistant	AAS/CAS/CP
Business (BUS)		Substance Abuse Counseling . . . . .	.CP
Accounting . . . . .	.AAS/CAS	Industrial Maintenance and Operations (IMO)	
Accounting Fundamentals . . . . .	.CP	Electrical	AAS/CAS/CP
Entrepreneurship . . . . .	.AAS/CAS	Industrial Plant Operation . . . . .	.CP
Entrepreneurship Fundamentals . . . . .	.CP	Instrumentation.	AAS/CAS/CP
Management and Leadership . . . . .	.AAS/CAS	Maintenance Fundamentals. . . . .	.AAS/CAS
Management and Leadership Fundamentals . . . . .	.CP	Mechanical Maintenance . . . . .	.CP
Medical Office Technologies . . . . .	.AAS/CAS	Operations/Maintenance.	AAS/CAS/CP
Medical Office Technologies Fundamentals . . . . .	.CP	Power Fundamentals . . . . .	.AAS/CAS
Medical Transcription. . . . .	.AAS/CAS	Wastewater Collection and Treatment . . . . .	.CP
Medical Transcription Fundamentals. . . . .	.CP	Water Supply and Treatment . . . . .	.CP
Modern Office Technologies . . . . .	.AAS/CAS	Mechatronics Engineering Technology (MET). . . . .	.AAS
Modern Office Technologies Fundamentals . . . . .	.CP	Medical Assistant (MDA) . . . . .	.AAS/CAS
Retail Management . . . . .	.AAS/CAS	Nursing (NUR) . . . . .	.AAS
Retail Management Fundamentals . . . . .	.CP	Practical Nursing . . . . .	.CAS
Computer Information Systems (CIS)		Nursing Assistant (NAT) . . . . .	.CP
Commercial Graphics Fundamentals. . . . .	.CP	Paramedicine (EMT)	AAS/CAS/CP
Computer Information Systems. . . . .	.AAS/CAS	Photography Technician (PHO). . . . .	.AAS/CAS
Graphic Design	AAS/CAS/CP	Black and White Photography . . . . .	.CP
Network and PC Support . . . . .	.CP	Color Photography . . . . .	.CP
Web Design	AAS/CAS/CP	Photography Marketing . . . . .	.CP
Web Development. . . . .	.AAS/CAS	Welding (WLD) . . . . .	.AAS/CAS
Construction Technology (CON)	AAS/CAS/CP	Gas Metal Arc Welding (MIG) . . . . .	.CP
Drafting (DRF) . . . . .	.CP	Gas Tungsten Arc Welding (TIG). . . . .	.CP
Cosmetology (COS)	AAS/CAS/CP	Plastic Welding . . . . .	.CP
Cosmetology Instructor. . . . .	.CP	Shielded Metal Arc Welding (ARC). . . . .	.CP
Nail Technician . . . . .	.CP	Welding Level I – Entry Level Welder . . . . .	.CP
Early Childhood Development (ECD)		Welding Level II – Advanced Welder . . . . .	.CP
Early Childhood Management	AGS/AAS/CAS		
Family Care	AAS/CAS/CP		
Infant/Toddler	AGS/AAS/CAS/CP		
Preschool	AGS/AAS/CAS/CP		
School Age	AAS/CAS/CP		
Special Needs	AAS/CAS/CP		

Applied Science Degree and Certificate Programs

About these Degrees/Certificates

- **Associate of Applied Science (AAS)** degrees are awarded at the completion of programs designed to prepare the graduate for employment.
- **Certificates of Applied Science (CAS)** are awarded upon completion of specific program courses designed for employment skills.
- **Certificates of Proficiency (CP)** are awarded for some shorter programs with a narrow focus to prepare students for specific employment-related skills.

Students in some courses may also receive certificates of completion for successfully satisfying class requirements.

It should be noted that all applied science degree or certificate programs are not available at all Northland locations, nor are they available in their entirety each year. Some courses are offered only on demand. All NPC applied science programs are “competency based,” providing graduates with the skills necessary for entry-level employment.

Although many courses within these programs may transfer to four-year colleges and universities, students should not assume that all courses will transfer.

NPC Requirements

- The **Associate of Applied Science (AAS)** degree requires a minimum of **64 hours of course credits** with a cumulative grade point average of 2.0 on a 4.0 scale.
- Some courses have **placement requirements** or **prerequisites** that may result in coursework beyond 64 credits. These courses, too, require a grade of “C” [or “P”] or better. For information about prerequisites, see *Part IV, Course Descriptions*, or consult an NPC academic adviser.
- The **Certificate of Applied Science** requires a minimum of 24 credits in a single area of specialization and six specified units of general education.
- **Certificate of Proficiency** requirements vary according to the skills demanded for training or retraining in occupational fields. Only programs totaling 32, or more, credit hours are recognized at commencement. Certificates of Proficiency are posted on the student’s transcript.
- In most general education courses, special emphasis is placed on developing written communication skills with intensive writing requirements. Race and ethnic issue awareness is embedded throughout the general education requirements.

Students are encouraged to work closely with their academic adviser to ensure that all studies will apply toward their degree or educational goals.

Degree Requirements • 64 credits

■ General Education Requirements

Most programs require 16 to 19 general education credits in communications, mathematics, sciences and humanities. Specific programs may designate or limit course options, and general education requirements in certain programs may exceed 19 credits. Always consult with an NPC academic adviser to ensure you meet ALL program/degree requirements.

Communications • 6 credits

- ENL 101 College Composition I 3 credit
- Plus one of the following based on program options.:
- ENL 102 College Composition II..... 3 credit
- ENL 109 Technical Writing..... 3 credit
- SPT 120 Public Speaking..... 3 credit

Mathematics • 3 to 6 credits

See specific program for requirements.

Discipline Studies • 7 credits

Unless otherwise noted in a specific program description, select one course from the Physical and Biological Sciences and one course from either the Arts and Humanities or Social and Behavioral Sciences.

Arts and Humanities

Select courses from the following in two different disciplines:

- ART 101 Understanding Art..... 3 credit
- ART 115 Art History I..... 3 credit
- ART 116 Art History II..... 3 credit
- ART 215 Native American Art..... 3 credit
- ENL 220 World Literature I 3 credit
- ENL 221 World Literature II 3 credit
- ENL 224 English Literature I..... 3 credit
- ENL 225 English Literature II 3 credit
- ENL 230 American Literature I..... 3 credit
- ENL 231 American Literature II 3 credit
- HUM 150 Humanities in the Western World I..... 3 credit
- HUM 151 Humanities in the Western World II 3 credit
- MUS 150 Music Appreciation 3 credit
- MUS 250 World Music 3 credit
- PHL 101 Introduction to Philosophy 3 credit
- PHL 105 Introduction to Ethics 3 credit
- SPT 130 Introduction to Theatre..... 3 credit
- SPT 150 Introduction to Film 3 credit
- SPT 155 History of Television 3 credit

Physical and Biological Sciences

Select courses from the following:

BIO 100 Biology Concepts	4 credit
BIO 105 Environmental Biology	4 credit
BIO 160 Introduction to Human Anatomy and Physiology I.....	4 credit
BIO 181 General Biology I.....	4 credit
BIO 182 General Biology II	4 credit
BIO 201 Human Anatomy and Physiology I.....	4 credit
BIO 202 Human Anatomy and Physiology II	4 credit
CHM 130 Fundamental Chemistry	4 credit
CHM 151 General Chemistry I.....	4 credit
CHM 152 General Chemistry II	4 credit
GEO 111 Physical Geography.....	4 credit
GLG 101 Introduction to Geology I - Physical.....	4 credit
GLG 102 Introduction to Geology II - Historical....	4 credit
PHY 113 General Physics I	4 credit
PHY 114 General Physics II	4 credit

Social and Behavioral Sciences

Select courses from the following in two different disciplines:

*ANT 102 Cultural Anthropology	3 credit
ANT 120 Buried Cities and Lost Tribes	3 credit
BUS 140 Principles of Economics - Macro.....	3 credit
BUS 141 Principles of Economics - Micro.....	3 credit
*GEO 110 World Regional Geography	3 credit
GEO 120 Human Geography.....	3 credit
*HIS 105 U.S. History to 1877	3 credit
*HIS 106 U.S. History since 1877.....	3 credit
*HIS 155 Western Civilization to 1700.....	3 credit
*HIS 156 Western Civilization since 1700.....	3 credit
POS 110 American Government.....	3 credit
PSY 101 Introduction to Psychology	3 credit
PSY 200 Psychology of Adjustment.....	3 credit
PSY 240 Developmental Psychology.....	3 credit
SOC 120 General Sociology.....	3 credit
SOC 121 Social Problems in America.....	3 credit
SOC 130 Racial, Ethnic & Gender Relations in Modern Society.....	3 credit
SOC 225 Sociology of the Family.....	3 credit

Courses marked with an asterisk (*) meet requirements for Contemporary Global/International or Historical Awareness.

Automotive Technology (ATO)

(AAS/CAS/CP)

About this Program

This program is for students who are seeking a career in the automotive repair industry. It offers a combination of self-guided, computer-aided instruction, guided instruction and hands-on laboratory learning. Students will perform numerous repairs on a combination of training modules, practice and live vehicles. All repairs and tasks will follow ASE guidelines



to prepare students to become ASE certified in eight areas of repair. These areas are: electronics and electrical systems; engine performance; suspension and steering; brakes; heating and air-conditioning; engine repair; manual transmissions and axles; and automatic transmissions. Students will then be encouraged to participate in the ASE testing process to obtain certifications in their area of interest.

Upon completion of the program, the student will receive an **Associate of Applied Science degree in Automotive Technology**. This degree, coupled with the ASE certifications, will enhance career opportunities for a student as an Automotive Service technician in the automotive industry.

Preceding the A.A.S. degree, students are afforded the opportunity to obtain a **Certificate of Applied Science in Automotive Technology** or **Certificates of Proficiency**.

Associate of Applied Science (AAS)

About this Degree • 64 credits

To complete an **Associate of Applied Science degree in Automotive Technology** a student must complete the 16 general education requirement credits, and 48 credits of core requirements.

■ General Education Requirements • 16 credits

Communications • 6 credits

ENL 101 College Composition I	3 credit
Plus one of the following:	
ENL 102 College Composition II.....	3 credit
ENL 109 Technical Writing.....	3 credit
SPT 120 Public Speaking.....	3 credit

Mathematics • 3 credits

MAT 101 or MAT 103 or MAT 105 or MAT 109 or MAT 112 or any mathematics course for which MAT 112 is a prerequisite.

Discipline Studies • 7 credits

Per the AAS Discipline Studies list on page 60-61.

■ Core Requirements • 48 credits

Level 1

ATO 103 Safety and Hazardous Materials	2 credit
ATO 207 Electrical and Electronics Systems I.....	3 credit
ATO 208 Electrical and Electronics Systems II	3 credit
ATO 209 Electrical and Electronic Systems III	3 credit

Level 2

ATO 107 Engine Repair I.....	3 credit
ATO 108 Engine Repair II	2 credit
ATO 109 Engine Performance I.....	3 credit
ATO 110 Engine Performance II.....	3 credit

Level 3

- ATO 111 Engine Performance III.....3 credit
- ATO 112 Automatic Transmission Systems I.....3 credit
- ATO 113 Automatic Transmission Systems II3 credit
- ATO 205 Suspension and Steering Systems.....4 credit

Level 4

- ATO 114 Brake Systems I3 credit
- ATO 115 Brake Systems II.....2 credit
- ATO 210 Heating and Air Conditioning Systems ...4 credit
- ATO 212 Manual Drive Train and Axles4 credit

Certificate of Applied Science (CAS)

To complete a **Certificate of Applied Science in Automotive Technology**, a student must complete the Level 1 and Level 2 core requirements. Additionally, the student must complete ATO 111, ENL 101 and MAT 101 or MAT 103 or MAT 105 or MAT 109 or MAT 112 or any mathematics class for which MAT 112 is a prerequisite. **(31 credits)**

Certificates of Proficiency (CP)

■ **Brake and Transmission Systems • 13 credits**

- ATO 103 Safety and Hazardous Materials2 credit
- ATO 112 Automatic Transmission Systems I.....3 credit
- ATO 113 Automatic Transmission Systems II3 credit
- ATO 114 Brake Systems I3 credit
- ATO 115 Brake Systems II.....2 credit

■ **Drive Train, Suspension and Steering, HVAC • 14 credits**

- ATO 103 Safety and Hazardous Materials2 credit
- ATO 205 Suspension and Steering4 credit
- ATO 210 Heating and Air Conditioning Systems ...4 credit
- ATO 212 Manual Drive Train4 credit

■ **Electrical and Electronics Systems • 11 credits**

- ATO 103 Safety and Hazardous Materials2 credit
- ATO 207 Electrical and Electronic Systems I.....3 credit
- ATO 208 Electrical and Electronic Systems II.....3 credit
- ATO 209 Electrical and Electronic Systems III3 credit

■ **Engine Performance • 11 credits**

- ATO 103 Safety and Hazardous Materials2 credit
- ATO 109 Engine Performance I.....3 credit
- ATO 110 Engine Performance II.....3 credit
- ATO 111 Engine Performance III.....3 credit

■ **Engine Repair • 7 credits**

- ATO 103 Safety and Hazardous Materials2 credit
- ATO 107 Engine Repair I.....3 credit
- ATO 108 Engine Repair II2 credit

Business (BUS) (AAS/CAS/CP)

About this Program

The Business program provides graduates with knowledge and skills for positions in management, retail marketing, accounting, small business/entrepreneurship, office management, medical transcription and medical office applications.

Career opportunities exist both inside and outside the Northland district. Graduates are needed by private business, industry, government, public and private agencies.

Associate of Applied Science (AAS)

About this Degree • 64 credits

To complete an **Associate of Applied Science degree in Business** a student must complete the 16 general education requirement credits, the core requirement credits in the selected area of specialization (varies from 37 to 42 credits) and from six to 11 credits of unrestricted electives.

■ **General Education Requirements • 16 credits**

Communications • 6 credits

- ENL 101 College Composition I3 credit
- ENL 102 College Composition II.....3 credit
- or
- ENL 109 Technical Writing.....3 credit

Mathematics • 3 credits

- MAT 103 Business Mathematics3 credit
- or
- MAT 152 Advanced Algebra or any MAT course for which MAT 152 is a prerequisite.....3 credit

Discipline Studies • 7 credits

Per the AAS Discipline Studies list on page 60-61.

AREAS OF SPECIALIZATION

■ **Accounting**

■ **Core Requirements • 42 credits**

- BUS 100 Introduction to Business..... 3 credit
- BUS 103 Success on Your Job..... 2 credit
- BUS 115 Business Law..... 3 credit
- BUS 117 Principles of Financial Accounting I..... 3 credit
- BUS 120 Principles of Financial Accounting II.....3 credit
- BUS 121 Principles of Accounting-Managerial.....3 credit
- BUS 122 Computerized Accounting
with QuickBooks3 credit
- BUS 123 Income Tax Procedures3 credit
- BUS 125 Payroll Accounting3 credit
- BUS 128 Microsoft Excel Applications for Business3 credit

BUS 140 Principles of Economics - Macro.....	3 credit
BUS 141 Principles of Economics - Micro.....	3 credit
BUS 185 Ethics in Management.....	3 credit
BUS 202 Professional Customer Service.....	1 credit
BUS 210 Principles of Management.....	3 credit

■ **Unrestricted Electives • 6 credits**

Student may choose any unduplicated courses at the 100 or higher level.

■ **Entrepreneurship**

■ **Core Requirements • 37 credits**

BUS 100 Introduction to Business.....	3 credit
BUS 105 Techniques of Supervision.....	3 credit
BUS 110 Small Business Management.....	3 credit
BUS 112 Fundamentals of Bookkeeping.....	3 credit
BUS 115 Business Law.....	3 credit
BUS 122 Computerized Accounting with QuickBooks.....	3 credit
BUS 128 Microsoft Excel Applications for Business	3 credit
BUS 140 Principles of Economics - Macro.....	3 credit
BUS 141 Principles of Economics - Micro.....	3 credit
BUS 202 Professional Customer Service.....	1 credit
BUS 210 Principles of Management.....	3 credit
BUS 220 Principles of Marketing.....	3 credit
BUS 240 Entrepreneurship.....	3 credit

■ **Unrestricted Electives • 11 credits**

The student may choose any unduplicated courses at the 100-level or higher.

■ **Management and Leadership**

■ **Core Requirements • 40 credits**

BUS 100 Introduction to Business.....	3 credit
BUS 105 Techniques of Supervision.....	3 credit
or	
BUS 225 Human Resources Management.....	3 credit
BUS 115 Business Law.....	3 credit
BUS 117 Principles of Financial Accounting I.....	3 credit
BUS 140 Principles of Economics - Macro.....	3 credit
BUS 141 Principles of Economics - Micro.....	3 credit
BUS 150 Administrative Policymaking.....	3 credit
BUS 180 Organizational Behavior.....	3 credit
BUS 185 Ethics in Management.....	3 credit
BUS 202 Professional Customer Service.....	1 credit
BUS 210 Principles of Management.....	3 credit
BUS 220 Principles of Marketing.....	3 credit
BUS 230 Organizational Leadership.....	3 credit
CIS 105 Computer Applications and Information Technology.....	3 credit

■ **Unrestricted Electives • 8 credits**

The student may choose any unduplicated courses at the 100 or higher level.

■ **Medical Office Technologies**

■ **Core Requirements • 41 credits**

BUS 100 Introduction to Business.....	3 credit
BUS 101 Business Grammar.....	1 credit
BUS 102 Proofreading Mastery.....	1 credit
BUS 104 Developing Your Professionalism.....	1 credit
BUS 106 Techniques of Personal Finance.....	3 credit
BUS 108 Basic Keyboarding and Document Processing.....	3 credit
BUS 111 Ten-Key Skill Mastery.....	1 credit
BUS 112 Fundamentals of Bookkeeping.....	3 credit
BUS 118 Computerized Medical Billing.....	3 credit
BUS 119 Medical Office Administrative Procedures.....	3 credit
BUS 126 Vocabulary for the Medical Office.....	3 credit
BUS 155 Microsoft Word Level I.....	3 credit
BUS 181 Medical Records Management.....	1 credit
BUS 183 Electronic Medical Records.....	3 credit
BUS 202 Professional Customer Service.....	1 credit
BUS 227 Medical Coding.....	4 credit
BUS 231 Microsoft Office Level I.....	3 credit
CIS 103 Introduction to Windows.....	1 credit

■ **Unrestricted Electives • 7 credits**

The student may choose any unduplicated courses at the 100 or higher level.

■ **Medical Transcription**

■ **Core Requirements • 37 credits**

BUS 100 Introduction to Business.....	3 credit
BUS 101 Business Grammar.....	1 credit
BUS 102 Proofreading Mastery.....	1 credit
BUS 103 Success on Your Job.....	2 credit
BUS 108 Basic Keyboarding and Document Processing.....	3 credit
BUS 109 Advanced Keyboarding and Document Processing.....	3 credit
BUS 119 Medical Office Administrative Procedures.....	3 credit
BUS 126 Vocabulary for the Medical Office.....	3 credit
BUS 131 Medical Transcription Fundamentals.....	3 credit
BUS 155 Microsoft Word Level I.....	3 credit
BUS 170 Written Business Communication.....	3 credit
BUS 202 Professional Customer Service.....	1 credit
BUS 236 Advanced Medical Transcription I.....	4 credit
BUS 237 Advanced Medical Transcription II.....	4 credit

■ **Unrestricted Electives • 11 credits**

The student may choose any unduplicated courses at the 100-level or higher.

■ Modern Office Technologies

■ Core Requirements • 39 credits

BUS 100 Introduction to Business.....	3 credit
BUS 101 Business Grammar	1 credit
BUS 102 Proofreading Mastery.....	1 credit
BUS 103 Success on Your Job.....	2 credit
BUS 104 Developing Your Professionalism.....	1 credit
BUS 106 Techniques of Personal Finance.....	3 credit
BUS 108 Basic Keyboarding and Document Processing.....	3 credit
BUS 109 Advanced Keyboarding and Document Processing.....	3 credit
BUS 111 Ten-Key Skill Mastery	1 credit
BUS 112 Fundamentals of Bookkeeping.....	3 credit
BUS 144 Professional Office Skills.....	3 credit
BUS 149 Microsoft Publisher Basics	1 credit
BUS 155 Microsoft Word Level I	3 credit
BUS 170 Written Business Communications	3 credit
BUS 182 Records Management	3 credit
BUS 202 Professional Customer Service.....	1 credit
BUS 231 Microsoft Office Level I.....	3 credit
CIS 103 Introduction to Windows.....	1 credit

■ Unrestricted Electives • 9 credits

The student may choose any unduplicated courses at the 100-level or higher.

■ Retail Management

■ Core Requirements • 37 credits

BUS 100 Introduction to Business.....	3 credit
BUS 105 Techniques of Supervision	3 credit
BUS 115 Business Law.....	3 credit
BUS 117 Principles of Financial Accounting I.....	3 credit
BUS 140 Principles of Economics - Macro.....	3 credit
BUS 141 Principles of Economics - Micro.....	3 credit
BUS 180 Organizational Behavior	3 credit
or	
BUS 230 Organizational Leadership.....	3 credit
BUS 185 Ethics in Management.....	3 credit
BUS 202 Professional Customer Service.....	1 credit
BUS 210 Principles of Management	3 credit
BUS 215 Principles of Retail Management	3 credit
BUS 216 Merchandising Practices and Policies.....	3 credit
BUS 220 Principles of Marketing	3 credit

■ Unrestricted Electives • 11 credits

The student may choose any unduplicated courses at the 100-level or higher.

Certificates of Applied Science (CAS)

To earn the **Certificate of Applied Science in Accounting**, a student must successfully complete the course requirements of the **Certificate of Proficiency in Accounting Fundamentals** plus ENL 101 and MAT 103 or MAT 152 or any MAT class for which MAT 152 is a prerequisite, and BUS 120 and BUS 123 **(30 credits)**.

To earn the **Certificate of Applied Science in Entrepreneurship**, a student must successfully complete the course requirements of the **Certificate of Proficiency in Entrepreneurship Fundamentals** plus ENL 101 and MAT 103 or MAT 152 or any MAT class for which MAT 152 is a prerequisite, and BUS 106 and BUS 210 **(31 credits)**.

To earn the **Certificate of Applied Science in Management and Leadership**, a student must successfully complete the course requirements of the **Certificate of Proficiency in Management and Leadership Fundamentals** plus ENL 101 and MAT 103 or MAT 152 or any MAT class for which MAT 152 is a prerequisite, and BUS 105 or BUS 225 and BUS 140 **(28 credits)**.

To earn the **Certificate of Applied Science in Medical Office Technologies**, a student must successfully complete the course requirements of the **Certificate of Proficiency in Medical Office Technologies Fundamentals** plus ENL 101 and MAT 103 or MAT 152 or any MAT class for which MAT 152 is a prerequisite, and BUS 102 and BUS 227 **(29 credits)**.

To earn the **Certificate of Applied Science in Medical Transcription**, a student must successfully complete the course requirements of the **Certificate of Proficiency in Medical Transcription Fundamentals** plus ENL 101 and MAT 103 or MAT 152 or any MAT class for which MAT 152 is a prerequisite, and BUS 103, BUS 109, BUS 202 and BUS 236 **(30 credits)**.

To earn the **Certificate of Applied Science in Modern Office Technologies**, a student must successfully complete the course requirements of the **Certificate of Proficiency in Modern Office Technologies Fundamentals** plus ENL 101 and MAT 103 or MAT 152 or any MAT class for which MAT 152 is a prerequisite, and BUS 104 and BUS 231 **(28 credits)**.

To earn the **Certificate of Applied Science in Retail Management**, a student must successfully complete the course requirements of the **Certificate of Proficiency in Retail Management Fundamentals** plus ENL 101 and MAT 103 or MAT 152 or any MAT class for which MAT 152 is a prerequisite, and BUS 140 and BUS 210 **(28 credits)**.

Certificates of Proficiency (CP)

■ Accounting Fundamentals • 18 credits

BUS 100 Introduction to Business	3 credit
BUS 103 Success on Your Job	2 credit
BUS 117 Principles of Accounting I - Financial	3 credit
BUS 122 Computerized Accounting with QuickBooks	3 credit
BUS 125 Payroll Accounting	3 credit
BUS 128 Microsoft Excel Applications for Business	3 credit
BUS 202 Professional Customer Service	1 credit

■ Entrepreneurship Fundamentals • 19 credits

BUS 100 Introduction to Business	3 credit
BUS 105 Techniques of Supervision	3 credit
BUS 110 Small Business Management	3 credit
BUS 112 Fundamentals of Bookkeeping	3 credit
BUS 202 Professional Customer Service	1 credit
BUS 220 Principles of Marketing	3 credit
BUS 240 Entrepreneurship	3 credit

■ Management and Leadership Fundamentals • 16 credits

BUS 100 Introduction to Business	3 credit
BUS 180 Organizational Behavior	3 credit
BUS 185 Ethics in Management	3 credit
BUS 202 Professional Customer Service	1 credit
BUS 210 Principles of Management	3 credit
BUS 230 Organizational Leadership	3 credit

■ Medical Office Technologies Fundamentals • 18 credits

BUS 101 Business Grammar	1 credit
BUS 104 Developing Your Professionalism	1 credit
BUS 108 Basic Keyboarding and Document Processing	3 credit
BUS 118 Computerized Medical Billing	3 credit
BUS 119 Medical Office Administrative Procedures	3 credit
BUS 126 Vocabulary for the Medical Office	3 credit
BUS 183 Electronic Medical Records	3 credit
BUS 202 Professional Customer Service	1 credit

■ Medical Transcription Fundamentals • 16 credits

BUS 101 Business Grammar	1 credit
BUS 102 Proofreading Mastery	1 credit
BUS 103 Success on Your Job	2 credit
BUS 108 Basic Keyboarding and Document Processing	3 credit
BUS 126 Vocabulary for the Medical Office	3 credit
BUS 131 Medical Transcription Fundamentals	3 credit
BUS 155 Microsoft Word Level I	3 credit

■ Modern Office Technologies Fundamentals • 18 credits

BUS 101 Business Grammar	1 credit
BUS 102 Proofreading Mastery	1 credit
BUS 103 Success on Your Job	2 credit
BUS 108 Basic Keyboarding and Document Processing	3 credit
BUS 144 Professional Office Skills	3 credit
BUS 155 Microsoft Word Level I	3 credit
BUS 182 Records Management	3 credit
BUS 202 Professional Customer Service	1 credit
CIS 103 Introduction to Windows	1 credit

■ Retail Management Fundamentals • 16 credits

BUS 100 Introduction to Business	3 credit
BUS 105 Techniques of Supervision	3 credit
BUS 202 Professional Customer Service	1 credit
BUS 215 Principle of Retail Management	3 credit
BUS 216 Merchandising Practices and Policies	3 credit
BUS 220 Principles of Marketing	3 credit

Computer Information Systems (CIS) (AAS/CAS/CP)

About this Program

The Computer Information Systems program provides students with knowledge and skills in the areas of computer programming languages, graphics in multimedia, database management and information systems.

Career opportunities exist both in and out of the Northland district communities. Graduates are needed by business, industry, government, public and private agencies and small business enterprises.

Associate of Applied Science (AAS)

About this Degree • 64 to 65 credits

To complete an **Associate of Applied Science degree in Computer Information Systems** a student must complete the 16 to 17 general education requirement credits, an area of specialization (28 to 30 credit) and 18 to 20 credits of required electives. **Basic keyboarding knowledge is required for successful completion of all CIS courses.**

■ General Education Requirements • 16–17 credits

Communications • 6 credits

- ENL 101 College Composition I 3 credit
- Plus one of the following:
- ENL 102 College Composition II..... 3 credit
- ENL 109 Technical Writing..... 3 credit

Mathematics • 3 or 4 credits

Select one of the following courses.

- MAT 112 Algebra II: Intermediate 3 credit
- MAT 121 Intermediate Algebra..... 4 credit

Discipline Studies • 7 credits

Per the AAS Discipline Studies list on page 60-61.

AREAS OF SPECIALIZATION

■ Computer Information Systems

■ Core Requirements • 30 credits

- CIS 105 Computer Applications and Information Technology 3 credit
- CIS 111 Introduction to Programming 3 credit
- CIS 115 Introduction to Graphic Communication Technology 3 credit
- CIS 125 Effective Communication with Digital Media 3 credit

- CIS 141 Managing and Maintaining Your PC I (A+) 3 credit
- CIS 150 Digital Culture..... 3 credit
- CIS 171 GNU Linux Operating System 3 credit
- CIS 217 JAVA Programming, Introductory 3 credit
- CIS 245 Database Management and Concepts 3 credit
- CIS 280 Systems Analysis and Design 3 credit

■ Graphic Design

■ Core Requirements • 28 credits

- ART 103 Basic Design 3 credit
- ART 105 Beginning Drawing I..... 3 credit
- CIS 105 Computer Applications and Information Technology 3 credit
- CIS 115 Introduction to Graphic Communication Technology 3 credit
- CIS 116 Computer Photographic Imaging (Adobe Photoshop)..... 3 credit
- CIS 117 Two-Dimensional Computer Design (Adobe Illustrator)..... 3 credit
- CIS 118 Graphics, Interactive and Animated 3 credit
- CIS 119 Page Layout and Design 3 credit
- CIS 125 Effective Communication with Digital Media 3 credit
- CIS 298 Portfolio 1 credit

■ Web Design

■ Core Requirements • 30 credits

- ART 103 Basic Design 3 credit
- or
- ART 150 Advertising Design..... 3 credit
- CIS 105 Computer Applications and Information Technology 3 credit
- CIS 115 Introduction to Graphic Communication Technology 3 credit
- CIS 116 Computer Photographic Imaging (Adobe Photoshop)..... 3 credit
- CIS 118 Graphics, Interactive and Animated 3 credit
- CIS 113 Multimedia..... 3 credit
- or
- CIS 125 Effective Communication with Digital Media 3 credit
- CIS 150 Digital Culture..... 3 credit
- CIS 168 Web Authoring Tools 3 credit
- CIS 187 Introduction to Web Development 3 credit
- CIS 295 Applied Project for CIS 3 credit

■ Web Design • 18 credits

- CIS 113 Multimedia.....3 credit
or
- CIS 125 Effective Communication
with Digital Media3 credit
- CIS 115 Introduction to Graphic Communication
Technology3 credit
- CIS 116 Computer Photographic Imaging
(Adobe Photoshop).....3 credit
- CIS 118 Graphics, Interactive and Animated3 credit
- CIS 168 Web Authoring Tools3 credit
- CIS 187 Introduction to Web Development3 credit

Construction Technology

(CON) (AAS,CAS,CP)

About this Program

The Construction Technology program emphasizes general residential and commercial construction by teaching basic hands-on skills applicable across a wide range of industrial and manufacturing processes. Core courses conform to nationally recognized NCCER certification standards. Successful completion provides a portable certification of skills that heightens employability in any location.

Courses are taught at the NPC Painted Desert Campus Skills Center with dual enrollment options available for interested area high schools.

For more information regarding this program, contact the program chair, Ken Wilk at (800) 266-7845, ext. 6246.

Associate of Applied Science (AAS)

About this Degree • 64 credits

To complete an **Associate of Applied Science degree in Construction Technology** a student must complete the 16 general education requirement credits, 37 program core requirement credits and 11 credits of required electives.

■ General Education Requirements • 16 credits

Communications • 6 credits

- ENL 101 College Composition I3 credit
- Plus one of the following:
- ENL 102 College Composition II.....3 credit
- ENL 109 Technical Writing.....3 credit
- SPT 120 Public Speaking3 credit

Mathematics • 3 or 4 credits

Select one of the following courses.

- MAT 101 Basic Technical Math3 credit
- or MAT 103 or MAT 105 or MAT 109 or MAT 112 or any mathematics class MAT 112 is a prerequisite.....3 credit

Discipline Studies • 7 credits

Per the AAS Discipline Studies list on page 60-61.

■ Core Requirements • 37 credits

- CON 100 Construction Math & Safety*3 credit
- CON 105 Engineering Principles and
Construction Methods.....3 credit
- CON 110 Plan Reading, Site Layout,
Communication and Employment3 credit
- CON 124 Masonry Systems*3 credit
- CON 125 Concrete Systems*3 credit
- CON 126 Framing Systems*4 credit
- CON 140 Computer Applications
in Construction.....3 credit
- CON 145 Roofing, Thermal and
Moisture Protection Systems*3 credit
- CON 200 Integrated Construction
Management/Design Laboratory3 credit
- CON 227 Electrical, Mechanical and
Plumbing Systems*3 credit
- CON 230 Sustainable Construction.....3 credit
- CON 263 Estimating, Scheduling and Planning3 credit

■ Required Electives • 11 credits

Select a minimum of eleven credits:

- CON 180 Construction Service Learning.....3 credit
- CON 198 Construction Internship.....1 to 16 credit
- CON 223 Heavy Highway Construction*3 credit
- CON 241 Electrical Level 1 *3 credit
- CON 242 Electrical level 2 *3 credit
- Any unduplicated CON course
100 level or higher.....3 credit

Or choose from the following:

- BUS 115 Business Law.....3 credit
- BUS 117 Principles of Accounting I - Financial.....3 credit
- BUS 141 Principles of Economics - Micro3 credit
- DRF 120 Technical Drafting I.....3 credit
- DRF 130 Architectural Drafting I.....3 credit
- DRF 150 AutoCAD I.....3 credit
- DRF 230 Architectural Drafting II3 credit
- DRF 250 AutoCAD II3 credit
- HQO any unduplicated 100 level
or higher course.....up to 11 credits
- MAT 125 Introduction to Statistics3 credit
- SPT 220 Technical Theatre.....3 credit
- WLD 151 Cutting Process & Welding Quality3 credit
- WLD 152 SMAW Plate I3 credit
- WLD 154 GMAW Plate3 credit
- or any unduplicated 100 level or above course.....6 credit
- * NCCER Certified Courses

Certificate of Applied Science (CAS)

To complete a **Certificate of Applied Science in Construction Technology** a student must complete: MAT 101 (or MAT 103 or MAT 105 or MAT 109 or MAT 112 or any math class MAT 112 is a prerequisite), ENL 101, CON 100, CON 110, CON 124, CON 125, CON 126, CON 145 and CON 227 (28 credits).

Certificates of Proficiency (CP)

■ Construction Technology • 22 credits

To complete a **Certificate of Proficiency in Construction Technology** a student must complete: CON 100, CON 110, CON 124, CON 125, CON 126, CON 145 and CON 227 (22 credits).

■ Drafting • 21 credits

The drafting CP is currently only available as a dual enrollment option at participating area high schools.

To complete a **Certificate of Proficiency in Drafting** a student must successfully complete: CON 100, CON 110, DRF 120, DRF 130, DRF 150, DRF 230 and DRF 250 (21 credits)

Cosmetology (COS) (AAS/CAS/CP)

About this Program

The Cosmetology program offers exceptional training necessary to prepare prospective students for the Arizona State Board of Cosmetology License Exam This 1600-hour program is offered at three locations – Little Colorado Campus in Winslow, White Mountain Campus in Show Low and the St. Johns Center.

The **Associate of Applied Science degree in Cosmetology** is based on a two-year curriculum. The **Certificate of Applied Science in Cosmetology** requires students to complete the Area of Specialization and designated English and mathematics courses. Completion of the **Certificate of Proficiency** prepares students to meet the state licensure examination requirements.

Prospective students are encouraged to make application to the program, including successful completion of a pre-admission interview. Admission is made on either a full- or part-time basis. Call the cosmetology department at (800) 266-7845, ext. 6161 for information on how to obtain an admissions packet or see an academic adviser at a campus or center near you.

Applicants with the goal of **Cosmetology Instructor Certificate of Proficiency** must have a current Arizona cosmetology license and one year of experience.

Associate of Applied Science (AAS)

About this Degree • 68 credits

To complete an **Associate of Applied Science degree in Cosmetology** a student must complete the 16 general education requirement credits and 52 credits of required electives.

■ General Education Requirements • 16 credits

Communications • 6 credits

ENL 101 College Composition I	3 credit
Plus one of the following:	
ENL 102 College Composition II.....	3 credit
ENL 109 Technical Writing.....	3 credit
SPT 120 Public Speaking.....	3 credit

Mathematics • 3 credits

Select MAT 101, MAT 103, MAT 105, MAT 109 or MAT 112 or any math course for which MAT 112 is a prerequisite.

Discipline Studies • 7 credits

Per the AAS Discipline Studies list on page 60-61.

■ Core Requirements • 52 credits

COS 113 Introduction to Cosmetology	10 credit
COS 114 Theory of Cosmetology II.....	3 credit
COS 115 Theory of Cosmetology III - General Science of Cosmetology	3 credit
COS 116 Theory of Cosmetology IV - Hair Care	2 credit
COS 117 Theory of Cosmetology V - Skin Care and Nail Care.....	2 credit
COS 201 Basic Clinical Practice I.....	4 credit
COS 202 Basic Clinical Practice II.....	4 credit
COS 203 Basic Clinical Practice III	4 credit
COS 204 Advanced Clinical Practice IV	4 credit
COS 205 Advanced Clinical Practice V.....	4 credit
COS 206 Advanced Clinical Practice VI.....	4 credit
COS 207 Advanced Clinical Practice VII.....	4 credit
COS 208 Advanced Clinical Practice VIII	4 credit

Certificate of Applied Science (CAS)

To complete a **Certificate of Applied Science in Cosmetology**, the student must complete 6 credits of general education requirements: ENL 101 and MAT 101 or MAT 103 or MAT 105 or MAT 109 or MAT 112 or any math class for which MAT 112 is a prerequisite and the 52 credits of core requirements (58 credits).

Certificates of Proficiency (CP)

To earn a **Certificate of Proficiency in Cosmetology** the student must complete the requirements as follows:

■ Cosmetology • 52 credits

Student must complete the cosmetology program's 52 credits of core requirements.

■ Cosmetology Instructor • 16 credits

COS 209 Science for Cosmetology Instructors	1 credit
COS 210 Management for Cosmetology Instructors	3 credit
COS 211 Instructing in Cosmetology I.....	3 credit
COS 212 Instructing in Cosmetology II	3 credit
COS 213 Instructing in Cosmetology III.....	3 credit
COS 214 Instructing in Cosmetology IV.....	3 credit

■ Nail Technician • 18 credits

COS 101 Manicuring I	4 credit
COS 102 Manicuring II.....	4 credit
COS 103 Manicuring III.....	4 credit
COS 104 Manicuring IV	4 credit
COS 118 Manicuring, Hand and Arm Massage	2 credit

Drafting (DRF)

See Construction on page 68

Early Childhood Development

(ECD) (AGS,AAS,CAS,CP)

About this Program

The Early Childhood Development program trains persons to work in or operate preschools, assist primary school teachers as assistants, work in family home provider settings, and work in other areas related to the education and care of young children. Local career opportunities exist in all Northland district communities, as well as statewide.

Associate of Applied Science (AAS)

About this Degree • 64 credits

To complete an **Associate of Applied Science degree in Early Childhood Development** a student must successfully complete the 16 general education requirement credits and 48 credits of core requirements and required electives in the selected area of specialization.

■ General Education Requirements • 16 credits

Communications • 6 credits

ENL 101 College Composition I	3 credit
Plus one of the following:	
ENL 102 College Composition II.....	3 credit
ENL 109 Technical Writing.....	3 credit
SPT 120 Public Speaking.....	3 credit

Mathematics • 3 credits

Select one of the math courses shown.

MAT 103 Business Mathematics	3 credit
MAT 105 Math for General Education	3 credit
MAT 112 Algebra II: Intermediate.....	3 credit
MAT 142 College Math with Contemporary Applications	3 credit
MAT 152 Advanced Algebra	3 credit
MAT 161 Algebra-based Mathematics for Elementary Teachers I	3 credit
MAT 162 Algebra-based Mathematics for Elementary Teachers II	3 credit

Discipline Studies • 7 credits

Per the AAS Discipline Studies list on page 60-61.

AREAS OF SPECIALIZATION

■ Early Childhood Management

■ Core Requirements • 35 credits

- ECD 100 Providing a Healthy Environment..... 1 credit
- ECD 102 Ensuring a Safe Environment..... 1 credit
- ECD 103 Planned Arrangements and Schedules..... 1 credit
- ECD 105 Guidance Principles for Encouraging
Self Discipline 1 credit
- ECD 108 Techniques for Observing Children 1 credit
- ECD 110 Building Relationships With Parents
Through Communication..... 1 credit
- ECD 111 Supporting the Growth and
Education of Parents 1 credit
- ECD 112 Enhancing Family Involvement 1 credit
- ECD 120 Enhancing a Positive Self-Concept..... 1 credit
- ECD 128 Incorporating the Children's Culture 1 credit
- ECD 129 Planning and Implementing
a Bilingual Program 1 credit
- ECD 136 Understanding How Children Learn..... 1 credit
- ECD 175 Professionalism..... 1 credit
- ECD 198 Internship
(Early Childhood Management) 1 credit
- ECD 200 Introduction to Early Childhood
Education 3 credit
- ECD 201 Exploring Early Childhood
Program Philosophies 1 credit
- ECD 211 Providing Food and Nutrition Services.... 1 credit
- ECD 231 Planning and Managing an Early
Childhood Program 2 credit
- ECD 232 Designing Indoor and Outdoor
Environments 2 credit
- ECD 233 Developing Policies and Procedures for
Early Childhood Programs 2 credit
- ECD 234 Staffing an Early Childhood Program 2 credit
- ECD 235 Budgeting and Financial Management..... 2 credit
- ECD 236 Marketing the Early Childhood Program 2 credit
- ECD 237 Evaluating an Early Childhood Program. 1 credit
- ECD 250 Child Development I 3 credit

■ Required Electives • 13 credits

In addition, a minimum of 13 unduplicated credits, 100 level or higher, must be selected as electives. One-half credit to six credits of ECD/EDU/HUS 199s and 299s may be included in the 13 credits.

■ Family Care

■ Core Requirements • 26 credits

- ECD 100 Providing a Healthy Environment..... 1 credit
- ECD 101 The Child's Total Learning Environment 1 credit
- ECD 102 Ensuring a Safe Environment..... 1 credit
- ECD 103 Planned Arrangements and Schedules..... 1 credit
- ECD 105 Guidance Principles for Encouraging
Self Discipline 1 credit

- ECD 108 Techniques for Observing Children 1 credit
 - ECD 110 Building Relationships With Parents
Through Communication..... 1 credit
 - ECD 113 Fostering Communication and
Language Skills..... 1 credit
 - ECD 114 Beginning Mathematical Concepts 1 credit
 - ECD 116 Sciencing and Discovery 1 credit
 - ECD 117 Enhancing Questions and
Problem-Solving Abilities..... 1 credit
 - ECD 120 Enhancing a Positive Self-Concept..... 1 credit
 - ECD 123 Music and Creative Movement..... 1 credit
 - ECD 124 Dramatic Play
in Early Childhood Setting..... 1 credit
 - ECD 125 Creative Media..... 1 credit
 - ECD 126 Large Muscle Development 1 credit
 - ECD 127 Small Muscle Development 1 credit
 - ECD 136 Understanding How Children Learn..... 1 credit
 - *ECD 147 Prenatal and Infant Development..... 1 credit
 - *ECD 148 Toddler Development..... 1 credit
 - *ECD 149 Development of the Preschool Child..... 1 credit
 - ECD 167 Guidance and Discipline of Infants
and Toddlers..... 1 credit
 - ECD 175 Professionalism..... 1 credit
 - ECD 181 Recordkeeping for the Family Day
Care Provider 1 credit
 - ECD 182 Family Day Care as a Small Business 1 credit
 - ECD 183 Balancing Work and Family in a Family
Day Care Setting 1 credit
 - *ECD 250 Child Development I..... 3 credit
- *ECD 147, 148, 149 may be taken in combination or ECD 250 as a single three-credit class to apply toward the AAS degree.*

■ Required Electives • 22 credits

In addition, a minimum of 22 unduplicated credits must be selected as electives. One-half credit to six credits of ECD/EDU/HUS 199s and 299s may be included in the 22 credits.

■ Infant/Toddler

■ Core Requirements • 26 credits

- ECD 100 Providing a Healthy Environment..... 1 credit
- ECD 102 Ensuring a Safe Environment..... 1 credit
- ECD 103 Planned Arrangements and Schedules..... 1 credit
- ECD 108 Techniques for Observing Children 1 credit
- ECD 110 Building Relationships With Parents
Through Communication..... 1 credit
- ECD 112 Enhancing Family Involvement..... 1 credit
- ECD 115 Nutrition in Early Childhood 1 credit
- ECD 143 Inclusion of Children
with Special Needs 2 credit
- *ECD 147 Prenatal and Infant Development 1 credit *ECD
148 Toddler Development..... 1 credit
- *ECD 149 Development of the Preschool Child..... 1 credit
- ECD 154 Environments for Infants and Toddlers... 1 credit

- ECD 155 Curriculum and Learning Materials
for Infants..... 1 credit
- ECD 156 Curriculum and Learning Materials
for Toddlers 1 credit
- ECD 158 Developing and Utilizing Observation
Skills in Infant and Toddler Programs 1 credit
- ECD 159 Recordkeeping Skills
for Infant/Toddler Care..... 1 credit
- ECD 163 Cognitive Development of Infants
and Toddlers..... 1 credit
- ECD 164 Practical Applications
of Cognitive Development 1 credit
- ECD 165 Language Development of Infants
and Toddlers..... 1 credit
- ECD 166 Encouraging Autonomy and Positive
Self-Concept 1 credit
- ECD 167 Guidance and Discipline of Infants
and Toddlers..... 1 credit
- ECD 168 Enhancing Social Competence
of Infants/Toddlers..... 1 credit
- ECD 169 Sensorimotor Learning in Infancy
and Toddlerhood..... 1 credit
- ECD 172 Physical Development in Infancy
and Toddlerhood..... 1 credit
- ECD 175 Professionalism..... 1 credit
- *ECD 250 Child Development I..... 3 credit
- *ECD 147, 148, 149 may be taken in combination or ECD 250
as a single three-credit class to apply toward the AAS degree.*

■ **Required Electives • 22 credits**

In addition, a minimum of 22 unduplicated credits must be selected as electives. One-half credit to six credits of ECD/EDU/HUS 199s and 299s may be included in the 22 credits.

■ **Preschool**

■ **Core Requirements • 26 credits**

- ECD 100 Providing a Healthy Environment..... 1 credit
- ECD 101 The Child's Total Learning Environment 1 credit
- ECD 102 Ensuring a Safe Environment..... 1 credit
- ECD 103 Planned Arrangements and Schedules..... 1 credit
- ECD 105 Guidance Principles for Encouraging
Self Discipline 1 credit
- ECD 108 Techniques for Observing Children 1 credit
- ECD 110 Building Relationships With Parents
Through Communication..... 1 credit
- ECD 112 Enhancing Family Involvement..... 1 credit
- ECD 113 Fostering Communication and
Language Skills..... 1 credit
- ECD 114 Beginning Mathematical Concepts 1 credit
- ECD 115 Nutrition in Early Childhood 1 credit
- ECD 116 Sciencing and Discovery 1 credit
- ECD 117 Enhancing Questions and
Problem-Solving Abilities..... 1 credit
- ECD 118 Blocks in Early Childhood Program 1 credit
- ECD 120 Enhancing a Positive Self-Concept..... 1 credit

- ECD 123 Music and Creative Movement..... 1 credit
- ECD 124 Dramatic Play
in Early Childhood Setting..... 1 credit
- ECD 125 Creative Media..... 1 credit
- ECD 126 Large Muscle Development 1 credit
- ECD 127 Small Muscle Development 1 credit
- ECD 136 Understanding How Children Learn..... 1 credit
- *ECD 147 Prenatal and Infant Development..... 1 credit
- *ECD 148 Toddler Development..... 1 credit
- *ECD 149 Development of the Preschool Child..... 1 credit
- ECD 175 Professionalism..... 1 credit
- ECD 216 Transitions..... 1 credit
- *ECD 250 Child Development I..... 3 credit
- *ECD 147, 148, 149 may be taken in combination or ECD 250
as a single three-credit class to apply toward the AAS degree.*

■ **Required Electives • 22 credits**

In addition, a minimum of 22 unduplicated credits must be selected as electives. One-half credit to six credits of ECD/EDU/HUS 199s and 299s may be included in the 22 credits.

■ **School Age**

■ **Core Requirements • 26 credits**

- ECD 100 Providing a Healthy Environment..... 1 credit
- ECD 102 Ensuring a Safe Environment..... 1 credit
- ECD 103 Planned Arrangements and Schedule 1 credit
- ECD 107 Collecting, Organizing, and
Using Teaching Aids 1 credit
- ECD 108 Techniques for Observing Children 1 credit
- ECD 110 Building Relationships With Parents
Through Communication..... 1 credit
- ECD 115 Nutrition in Early Childhood 1 credit
- ECD 116 Sciencing and Discovery 1 credit
- ECD 117 Enhancing Questions and
Problem-Solving Abilities..... 1 credit
- ECD 120 Enhancing a Positive Self-Concept..... 1 credit
- ECD 123 Music and Creative Movement..... 1 credit
- ECD 124 Dramatic Play
in Early Childhood Setting..... 1 credit
- ECD 125 Creative Media..... 1 credit
- ECD 127 Small Muscle Development 1 credit
- ECD 136 Understanding How Children Learn..... 1 credit
- *ECD 147 Prenatal and Infant Development..... 1 credit
- *ECD 148 Toddler Development..... 1 credit
- *ECD 149 Development of the Preschool Child..... 1 credit
- ECD 150 Middle Childhood Years 1 credit
- ECD 151 Math for School Agers 1 credit
- ECD 152 Learning Environment
for School Agers 1 credit
- ECD 153 Guidance Principles for School Agers..... 1 credit
- ECD 175 Professionalism..... 1 credit
- ECD 216 Transitions..... 1 credit
- ECD 217 Early Literacy 1 credit
- *ECD 250 Child Development I..... 3 credit

EDU 139 Assisting in Teaching Elementary School
Physical Education 1 credit
**ECD 147, 148, 149 may be taken in combination or ECD 250 as a single three-credit class to apply toward the AAS degree.*

■ **Required Electives • 22 credits**

In addition, a minimum of 22 unduplicated credits must be selected as electives. One-half credit to six credits of ECD/EDU/HUS 199s and 299s may be included in the 22 credits.

■ **Special Needs**

■ **Core Requirements • 43 credits**

ECD 100 Providing a Healthy Environment..... 1 credit
ECD 101 The Child’s Total Learning Environment 1 credit
ECD 102 Ensuring a Safe Environment..... 1 credit
ECD 103 Planned Arrangements and Schedules..... 1 credit
ECD 105 Guidance Principles for Encouraging
Self Discipline 1 credit
ECD 108 Techniques for Observing Children 1 credit
ECD 110 Building Relationships With Parents
Through Communication..... 1 credit
ECD 112 Enhancing Family Involvement..... 1 credit
ECD 113 Fostering Communication and
Language Skills..... 1 credit
ECD 114 Beginning Mathematical Concepts 1 credit
ECD 115 Nutrition in Early Childhood 1 credit
ECD 116 Sciencing and Discovery 1 credit
ECD 117 Enhancing Questions and
Problem-Solving Abilities..... 1 credit
ECD 118 Blocks in Early Childhood Program 1 credit
ECD 120 Enhancing a Positive Self-Concept..... 1 credit
ECD 123 Music and Creative Movement..... 1 credit
ECD 124 Dramatic Play
in Early Childhood Setting..... 1 credit
ECD 125 Creative Media..... 1 credit
ECD 126 Large Muscle Development 1 credit
ECD 127 Small Muscle Development 1 credit
ECD 136 Understanding How Children Learn..... 1 credit
ECD 175 Professionalism..... 1 credit
ECD 200 Introduction to Early Childhood
Education 3 credit
ECD 216 Transitions..... 1 credit
ECD 222 Young Children With Special Needs 3 credit
ECD 250 Child Development I 3 credit
EDU 202 Occupational/Physical Therapy
Educational Assistant..... 3 credit
EDU 198 Internship
(Occupational/Physical Therapy)..... 1 credit
EDU 203 Speech Therapy Educational Assistant.... 3 credit
EDU 198 Internship (Speech Therapy) 1 credit
LAN 160 Beginning American Sign Language..... 3 credit

■ **Required Electives • 5 credits**

In addition, a minimum of five unduplicated credits must be selected as electives. One-half credit to five credits of ECD/EDU/HUS 199s and 299s may be included in the five credits.

Certificates of Applied Science (CAS)

To complete a **Certificate of Applied Science in Early Childhood Development** a student must complete the core requirements, ENL 101, and one of the following mathematics courses: MAT 103, MAT 105, MAT 112, MAT 142, MAT 152, MAT 161 or MAT 162 (32-41 credits).

To complete a **Certificate of Applied Science in Early Childhood Special Needs (32 credits)**, a student must complete ENL 101 and one of the following mathematics courses: MAT 103, MAT 105, MAT 112, MAT 142, MAT 152, MAT 161, MAT 162 and the following credits:

Certificate of Proficiency
(see below for courses in CP) 16 credit
ECD 200 Introduction to Early Childhood
Education 3 credit
ECD 250 Child Development I 3 credit
Required Electives** 4 credit
***Four unduplicated credits must be selected as electives. One-half credit to four credits of ECD/EDU/HUS 199s and 299’s may be included in the selection of the four credits.*

**Certificate of Proficiency (CP)
Early Childhood – Special Needs**

To complete a **Certificate of Proficiency in Early Childhood Special Needs**, a student must complete the following 16 credits.

ECD 102 Ensuring a Safe Environment..... 1 credit
ECD 136 Understanding How Children Learn..... 1 credit
ECD 222 Young Children With Special Needs 3 credit
EDU 202 Occupational/Physical Therapy
Educational Assistant..... 3 credit
EDU 198 Internship
(Occupational/Physical Therapy) 1 credit
EDU 203 Speech Therapy Educational Assistant.... 3 credit
EDU 198 Internship (Speech Therapy) 1 credit
LAN 160 Beginning American Sign Language..... 3 credit

Certificate of Proficiency (CP)

To complete a **Certificate of Proficiency in Early Childhood Family Care, Infant/Toddler, Preschool or School Age**, a student must complete the 26 core requirement credits in the area of specialization.

Education (EDU) (AAS/CAS/CP)

About this Program

The Education Program trains persons to assist in elementary school settings as assistants, volunteers, and/or substitutes and to work in other areas related to the education of children. Local career opportunities exist in all Northland district communities, as well as statewide.

Associate of Applied Science (AAS)

About this Degree • 64 credits

To complete an **Associate of Applied Science degree in Education** a student must successfully complete the 16 general education requirement credits, and 48 credits of core requirement and required electives in a selected area of specialization.

■ General Education Requirements • 16 credits

Communications • 6 credits

ENL 101 College Composition I	3 credit
Plus one of the following:	
ENL 102 College Composition II.....	3 credit
ENL 109 Technical Writing.....	3 credit
SPT 120 Public Speaking.....	3 credit

Mathematics • 3 credits

MAT 105 Mathematics for General Education.....	3 credit
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Discipline Studies • 7 credits

One course from the Arts and Humanities section, and one course from the Physical and Biological Sciences section of the AAS Discipline Studies list on page 60-61.

AREAS OF SPECIALIZATION

■ Special Needs Educational Assistant

■ Core Requirements • 40 credits

ECD 108 Techniques for Observing Children	1 credit
ECD 136 Understanding How Children Learn.....	1 credit
ECD 222 Young Children with Special Needs	3 credit
ECD 250 Child Development I	3 credit
ECD 251 Child Development II.....	2 credit
EDU 136 Introduction to Reading Programs.....	1 credit
EDU 137 Principles of Child Guidance.....	1 credit
EDU 138 Managing Children's Behavior.....	1 credit
EDU 139 Assisting in Teaching	
Elementary School Physical Education.....	1 credit
EDU 140 Assisting in Teaching	
Elementary School Writing.....	1 credit
EDU 143 Assisting in Teaching	
Elementary School Math.....	1 credit

EDU 144 Assisting in Teaching	
Elementary School Science	1 credit
EDU 145 Assisting in Teaching	
Elementary School Social Studies.....	1 credit
EDU 146 Assisting in Teaching	
Elementary School Music.....	1 credit
EDU 147 Assisting in Teaching	
Elementary School Reading.....	1 credit
EDU 148 Assisting in Teaching	
Elementary School Art.....	1 credit
EDU 149 Use of Bulletin Boards and	
Classroom Decorations.....	1 credit
EDU 198 Internship (Internship, Speech, and	
Occupational/Physical Therapy)	3 credit
EDU 200 Introduction to Education I.....	3 credit
EDU 201 Substitute Teaching in the Schools.....	3 credit
EDU 202 Occupational/Physical Therapy	
Educational Assistant.....	3 credit
EDU 203 Speech Therapy Educational Assistant....	3 credit
LAN 160 Beginning American Sign Language.....	3 credit

■ Required Electives • 8 credits

In addition, eight unduplicated credits (100 level or higher) must be selected from ECD/EDU/EMT/LAN/SPA courses as electives. One-half credit to 6 credits of ECD/EDU/EMT/LAN/SPA 199's and one-half credit to six credits of ECD 299's may be included in the selection of the eight credits.

Certificate of Applied Science (CAS)

■ Educational Assistant

To complete a **Certificate of Applied Science in the Educational Assistant** program, a student must complete the Certificate of Proficiency and ENL 101 and one of the following mathematics courses: MAT 103, 105, 112, 142, 152, 161 or 162 (**32 credits**).

■ Special Needs Educational Assistant

To complete a **Certificate of Applied Science in Special Needs Education Assistant** a student must complete ENL 101, one of the following mathematics courses: MAT 103, 105, 112, 142, 152, 161 or 162 and the following: (**32 credits**)

Certificate of Proficiency (listed below)	16 credit
ECD 250 Child Development I	3 credit
EDU 200 Introduction to Education	3 credit
EDU Required Electives as described above.....	4 credit

Certificate of Proficiency (CP)

■ Educational Assistant

To earn an **Educational Assistant Certificate of Proficiency** a student must complete the following 26 credits:

ECD 108 Techniques for Observing Children	1 credit
ECD 250 Child Development I.....	3 credit
ECD 251 Child Development II.....	2 credit
EDU 136 Introduction to Reading Programs.....	1 credit
EDU 137 Principles of Child Guidance.....	1 credit
EDU 138 Managing Children's Behavior.....	1 credit
EDU 139 Assisting in Teaching	
Elementary School Physical Education.....	1 credit
EDU 140 Assisting in Teaching	
Elementary School Writing.....	1 credit
EDU 143 Assisting in Teaching	
Elementary School Math.....	1 credit
EDU 144 Assisting in Teaching	
Elementary School Science	1 credit
EDU 145 Assisting in Teaching	
Elementary School Social Studies.....	1 credit
EDU 146 Assisting in Teaching	
Elementary School Music.....	1 credit
EDU 147 Assisting in Teaching	
Elementary School Reading.....	1 credit
EDU 148 Assisting in Teaching	
Elementary School Art.....	1 credit
EDU 149 Use of Bulletin Boards and	
Classroom Decorations.....	1 credit
EDU 198 Internship (Speech, or Occupational/ Physical Therapy).....	2 credit
EDU 200 Introduction to Education I.....	3 credit
EDU 201 Substitute Teaching in the Schools.....	3 credit

■ Special Needs Educational Assistant

To earn an **Special Needs Educational Assistant Certificate of Proficiency** a student must complete the following 16 credits:

ECD 102 Ensuring a Safe Environment.....	1 credit
ECD 222 Young Children With Special Needs	3 credit
ECD 136 Understanding How Children Learn.....	1 credit
EDU 202 Occupational/Physical Therapy	
Educational Assistant.....	3 credit
EDU 198 Internship	
(Occupational/Physical Therapy)	1 credit
EDU 198 Internship (Speech Therapy).....	1 credit
EDU 203 Speech Therapy Educational Assistant....	3 credit
LAN 160 Beginning American Sign Language.....	3 credit

Emergency Medical Technology (EMT)

See Paramedicine on page 83

Programs and Degrees

Fire Science (FRS) (AAS/CAS/CP)

About this Program

The Fire Science program, through cooperation with the State Fire Marshal's Office and fire departments throughout Northland's district and service area, trains fire department personnel in firefighting operations and in the use of equipment. Employment areas related to firefighting include fire inspectors, arson investigators, fire prevention specialists, insurance investigators, hazardous materials specialists, business/industry fire protection system engineers and others.

To obtain information on training opportunities and classes, contact the program coordinator at the Jake Flake Emergency Services Training Center in Taylor, (928) 536-2462.

Associate of Applied Science (AAS)

About this Degree • 64 credits

To earn an **Associate of Applied Science degree in Fire Science**, a student must complete the 18 general education requirement credits, 37-44 core requirement credits and 2-9 credits of unrestricted electives as described.

■ General Education Requirements • 18 credits

Communications • 6 credits

ENL 101 College Composition I	3 credit
Plus one of the following:	
ENL 102 College Composition II.....	3 credit
ENL 109 Technical Writing.....	3 credit
SPT 120 Public Speaking.....	3 credit

Mathematics • 3 credits

Select one of the listed courses, or any mathematics course for which MAT 152 is a prerequisite.

MAT 101 Basic Technical Mathematics	3 credit
MAT 152 Advanced Algebra	3 credit

Discipline Studies • 9 credits

Per the Arts and Humanities and/or Social and Behavioral Sciences sections of the AAS Discipline Studies list on page 60-61.

■ Core Requirements • 37-44 credits

FRS 104 Firefighter I and II.....	10 credit
FRS 110 Hazardous Materials First Responder.....	2 credit
FRS 115 Principles of Fire Prevention.....	3 credit
FRS 136 Fire Apparatus, Equipment	
and Hydraulics	3 credit
FRS 137 Strategies and Tactics	3 credit
FRS 141 Fire Service Communication	3 credit
FRS 150 Wildland Firefighter	2 credit
FRS 207 Fire Service Building Construction	3 credit
FRS 210 Incident Safety Officer	3 credit

Also available online at www.npc.edu/college-catalog

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- FRS 211 Leadership I..... 1 credit
- FRS 212 Leadership II 1 credit
- FRS 213 Leadership III..... 1 credit
- And one course from the following:
- EMT 120 Emergency Medical Responder3 credit
- EMT 132 Emergency Medical Technician-Basic.....9 credit
- FRS 102 Fire Service First Responder.....2 credit

■ **Unrestricted Electives • 2 to 9 credits**

Any unduplicated course(s) at the 100 or higher level.

Certificate of Applied Science (CAS)

To complete a **Certificate of Applied Science in Fire Science**, a student must complete the core requirements, ENL 101 and MAT 101 or MAT 152 or any mathematics class for which MAT 152 is a prerequisite (**43-50 credits**).

Certificate of Proficiency (CP)

To complete a **Certificate of Proficiency in Fire Science**, a student must complete the following courses:

- FRS 104 Firefighter I and II..... 10 credit
- FRS 110 Hazardous Materials First Responder.....2 credit
- FRS 150 Wildland Firefighter2 credit
- FRS 102 Fire Service First Responder.....2 credit
- or
- EMT 120 Emergency Medical Responder3 credit

Human Services (HUS) (AAS/CAS/CP)

About this Program

The Residential Child/Youth Care Assistant Program is designed for individuals working with children in residential settings such as boarding schools, dormitories or group homes. Courses leading to the program degree are combined from several disciplines.

Associate of Applied Science (AAS)

■ **Residential Child/Youth Care Assistant**

About this Degree • 64 credits

To earn an **Associate of Applied Science degree in Residential Child/Youth Care Assistant** the student must complete 16 credits of general education requirements, 35 credits of core requirements and 13 credits of required electives.

■ **General Education Requirements • 16 credits**

Communications • 6 credits

- ENL 101 College Composition I 3 credit
- Plus one of the following:
- ENL 102 College Composition II..... 3 credit

- ENL 109 Technical Writing..... 3 credit
- SPT 120 Public Speaking..... 3 credit

Mathematics • 3 credit

Select one of these mathematics courses.

- MAT 103 Business Mathematics 3 credit
- MAT 105 Mathematics for General Education..... 3 credit

Discipline Studies • 7 credits

Per the AAS Discipline Studies list on page 60-61.

■ **Core Requirements • 35 credits**

- CIS Any two 3-credit courses..... 6 credit
- ECD 100 Providing a Healthy Environment..... 1 credit
- ECD 102 Ensuring a Safe Environment..... 1 credit
- ECD 108 Techniques for Observing Children 1 credit
- ECD 110 Building Relationships with Parents Through Communication..... 1 credit
- ECD 143 Inclusion of Children with Special Needs 2 credit
- ECD 152 Learning Environment for School Agers 1 credit
- ECD 153 Guidance Principles for School Agers..... 1 credit
- ECD 175 Professionalism..... 1 credit
- ECD 221 Stress Management for Educators 2 credit
- ECD 250 Child Development I 3 credit
- ECD 251 Child Development II..... 2 credit
- ECD or EDU Internship 1 credit
- EDU 137 Principles of Child Guidance..... 1 credit
- EDU 138 Managing Children’s Behavior..... 1 credit
- HUS 180 Cross Cultural Helping Skills 2 credit
- HUS 251 Developing a Culture of Care..... 2 credit
- HUS 252 Building Relationships 2 credit
- HUS 253 Teaching Discipline 2 credit
- HUS 256 Understanding Child Development..... 2 credit

■ **Required Electives • 13 credits**

An additional 13 unduplicated credits must be selected from any 100-level or above courses. Up to six credits of 199 workshops may be included in this total.

Certificate of Applied Science (CAS)

To earn a **Certificate of Applied Science in Residential Child/Youth Care Assistant**, a student must complete ENL 101, MAT 103 or MAT 105, and the following: (**30 credits**)

- CIS: Any three-credit course..... 3 credit
- ECD 100 Providing a Healthy Environment..... 1 credit
- ECD 102 Ensuring a Safe Environment..... 1 credit
- ECD 108 Techniques for Observing Children 1 credit
- ECD 110 Building Relationships with Parents Through Communication..... 1 credit
- ECD 143 Inclusion of Children with Special Needs 2 credit
- ECD 152 Learning Environment for School Agers 1 credit

ECD 153 Guidance Principles for School Ageds.....	1 credit
ECD 175 Professionalism.....	1 credit
ECD 250 Child Development I.....	3 credit
ECD 251 Child Development II.....	2 credit
EDU 137 Principles of Child Guidance.....	1 credit
EDU 138 Managing Children's Behavior.....	1 credit
HUS 251 Developing a Culture of Care.....	2 credit
HUS 252 Building Relationships	2 credit
HUS 253 Teaching Discipline	2 credit
HUS 256 Understanding Child Development.....	2 credit

An additional three **unduplicated** credits (100 level or higher) must be selected from ECD/EDU/EMT/HDE/HUS/CIS/HPE/ANT/LAN courses. Up to three credits of 199 workshops may be used.

Certificates of Proficiency (CP)

■ Child/Youth Care • 19 credits

To earn a **Certificate of Proficiency in Child/Youth Care** the student must take the following courses:

ECD 100 Providing a Healthy Environment.....	1 credit
ECD 102 Ensuring a Safe Environment.....	1 credit
ECD 108 Techniques for Observing Children	1 credit
ECD 110 Building Relationships with Parents Through Communication.....	1 credit
ECD 143 Inclusion of Children with Special Needs	2 credit
ECD 152 Learning Environment for School Ageds .	1 credit
ECD 153 Guidance Principles for School Ageds.....	1 credit
ECD 175 Professionalism.....	1 credit
EDU 137 Principles of Child Guidance.....	1 credit
EDU 138 Managing Children's Behavior.....	1 credit
HUS 251 Developing a Culture of Care.....	2 credit
HUS 252 Building Relationships	2 credit
HUS 253 Teaching Discipline	2 credit
HUS 256 Understanding Child Development.....	2 credit

■ Substance Abuse Counseling • 15 credits

The **Certificate of Proficiency in Substance Abuse Counseling** is a series of seven courses linked together to provide training and skills necessary for an individual to work as part of a substance abuse program providing support for individuals involved with substance abuse or issues surrounding substance abuse.

HUS 111 Foundations of Chemical Dependency....	3 credit
HUS 112 Biosystems/Pharmacology of Chemical Dependency.....	3 credit
HUS 210 Family Dynamics and Chemical Dependency	3 credit
HUS 211 Recovery and Relapse	2 credit
HUS 212 Case Report Writing.....	1 credit
HUS 215 Professional Ethics and Counseling.....	1 credit
HUS 218 Dual Diagnosis.....	2 credit

Industrial Maintenance & Operations (IMO) (AAS/CAS)CP

About this Program

The Industrial Maintenance & Operations program prepares students to be technicians and operators capable of understanding the entire system with which they work. Core courses cover the complex related mechanical, pneumatic, hydraulic, electrical, thermal and sensory control systems used in modern industry.

Local career opportunities exist in all Northland district communities and throughout the state and nation. Technical employers include power plants, paper mills, saw mills, various utilities and communications companies and small to medium manufacturing companies.

For additional information about the Industrial Maintenance & Operations Program, contact the Program Coordinator at the Painted Desert Campus, (800) 266-7845, ext. 7360.

Associate of Applied Science (AAS)

About this Degree • 64 credits

To earn an **Associate of Applied Science degree in Industrial Maintenance & Operations** the student must complete 19 credits of general education requirements, 24 or 28 credits in an area of specialization, 15 credits of required electives, and two or six credits of unrestricted electives.

■ General Education Requirements • 19 credits

Communications • 6 credits

ENL 101 College Composition I	3 credit
Plus one of the following:	
ENL 102 College Composition II.....	3 credit
ENL 109 Technical writing.....	3 credit

Mathematics • 3 credits

Select one of the listed mathematics courses, or any MAT course for which MAT 109 is a prerequisite.

MAT 101 Basic Technical Mathematics	3 credit
MAT 109 Algebra I: Introductory	3 credit

Computer Science • 3 credits

CIS 105 Computer Applications & Information Technology	3 credit
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Arts and Humanities • 3 credits

Select one course from the Arts and Humanities section of the AAS Discipline Studies list on page 60.

Physical and Biological Science • 4 credits

Select one course from the Physical and Biological Sciences section of the AAS Discipline Studies list on page 61.

AREAS OF SPECIALIZATION

■ Electrical

■ Core Requirements • 24 credits

IMO 151 Electrical Level I.....	6 credit
IMO 152 Electrical Level II.....	6 credit
IMO 153 Electrical Level III.....	6 credit
IMO 154 Electrical Level IV.....	6 credit

■ Instrumentation

■ Core Requirements • 28 credits

IMO 155 Instrumentation Level I.....	7 credit
IMO 156 Instrumentation Level II.....	7 credit
IMO 157 Instrumentation Level III.....	7 credit
IMO 158 Instrumentation Level IV.....	7 credit

■ Maintenance Fundamentals

■ Core Requirements • 24 credits

IMO 230 Mechanical Maintenance I.....	6 credit
IMO 231 Mechanical Maintenance II.....	6 credit
IMO 232 Mechanical Maintenance III.....	6 credit
IMO 233 Mechanical Maintenance IV.....	6 credit

■ Operations/Maintenance

■ Core Requirements • 28 credits

IMO 201 Introduction to Industrial Maintenance..	4 credit
IMO 210 Power Principles I.....	6 credit
IMO 211 Power Principles II.....	6 credit
IMO 230 Mechanical Maintenance I.....	6 credit
IMO 231 Mechanical Maintenance II.....	6 credit

■ Power Fundamentals

■ Core Requirements • 24 credits

IMO 210 Power Principles I.....	6 credit
IMO 211 Power Principles II.....	6 credit
IMO 212 Power Principles III.....	6 credit
IMO 213 Power Principles IV.....	6 credit

■ Required Electives • 15 credits

All areas of specialization require student to complete a minimum of 15 credits from the list of required electives:

AIS 114 Introduction to Modern Office.....	3 credit
AIS 231 Introduction to Microsoft Office.....	3 credit
BUS 103 Success on Your Job.....	2 credit
BUS 105 Techniques of Supervision.....	3 credit
Any unduplicated IMO courses at 100 or higher level	

■ Unrestricted Electives • 2 or 6 credits

Select 2 or 6 credits (depending on selected area of specialization or Certificate of Proficiency) from any unduplicated 100 or higher level courses

Certificate of Applied Science (CAS)

To complete a **Certificate of Applied Science in Electrical, Instrumentation, Maintenance Fundamentals, Operations/Maintenance, or Power Fundamentals**, student must complete the core requirements in an area of specialization, ENL 101 or ENL 109 and MAT 101 or MAT 109 (30-34 credits).

Certificates of Proficiency (CP)

■ Electrical • 24 credits

IMO 151 Electrical Level I.....	6 credit
IMO 152 Electrical Level II.....	6 credit
IMO 153 Electrical Level III.....	6 credit
IMO 154 Electrical Level IV.....	6 credit

■ Industrial Plant Operations • 24 credits

IMO 210 Power Principles I.....	6 credit
IMO 211 Power Principles II.....	6 credit
IMO 212 Power Principles III.....	6 credit
IMO 213 Power Principles IV.....	6 credit

■ Instrumentation • 28 credits

IMO 155 Instrumentation Level I.....	7 credit
IMO 156 Instrumentation Level II.....	7 credit
IMO 157 Instrumentation Level III.....	7 credit
IMO 158 Instrumentation Level IV.....	7 credit

■ Mechanical Maintenance • 24 credits

IMO 230 Mechanical Maintenance I.....	6 credit
IMO 231 Mechanical Maintenance II.....	6 credit
IMO 232 Mechanical Maintenance III.....	6 credit
IMO 233 Mechanical Maintenance IV.....	6 credit

■ Operations/Maintenance • 28 credits

IMO 201 Introduction to Industrial Maintenance..	4 credit
IMO 210 Power Principles I.....	6 credit
IMO 211 Power Principles II.....	6 credit
IMO 230 Mechanical Maintenance I.....	6 credit
IMO 231 Mechanical Maintenance II.....	6 credit

■ Wastewater Collection and Treatment • 18 credits

IMO 140 Wastewater Collection and Treatment I...	6 credit
IMO 141 Wastewater Collection and Treatment II..	6 credit
IMO 142 Wastewater Collection and Treatment III	6 credit

■ Water Supply Treatment • 18 credits

IMO 130 Water Supply and Treatment I.....	6 credit
IMO 131 Water Supply and Treatment II.....	6 credit
IMO 132 Water Supply and Treatment III.....	6 credit

Mechatronics Engineering Technology (MET) (AAS)

About this Program

The Mechatronics Engineering Technology Program prepares students for careers as engineering technicians in diversified manufacturing. Students gain knowledge and skills in blueprint reading, CAD drawing, mechanics, pneumatics, hydraulics, electricity, motors, motor control, programmable logic controls, robotics and motion control, process control, instrumentation and computer-integrated manufacturing. Emphasis is placed on predictive maintenance, troubleshooting and quality assurance.

Local career opportunities exist in all Northland district communities and throughout the state and nation. Technical employers include power plants, mining operations, various utilities, communications companies and small to medium manufacturing companies.

For additional information about the Mechatronics Engineering Technology Program, contact the Program Coordinator at the Painted Desert Campus, (800) 266-7845, ext. 7360.

Associate of Applied Science (AAS)

About this Degree • 66 credits

To earn an **Associate of Applied Science degree in Mechatronics Engineering Technology**, a student must complete 22 credits of general education requirement credits and 44 core requirement credits.

■ General Education Requirements • 22 credits

Communications • 6 credits

- ENL 101 College Composition I3 credit
- Plus one of the following:
- ENL 102 College Composition II.....3 credit
- ENL 109 Technical Writing.....3 credit

Mathematics • 3 credits

- Any course for which MAT 109 is a prerequisite.....3 credit

Computer Science • 6 credits

- CIS 105 Computer Literacy3 credit
- CIS 141 Managing and Maintaining
Your PC I (A+)3 credit

Discipline Studies • 7 credits

Per AAS Discipline Studies list on page 60-61:

- Select one course from Arts and Humanities
or Social and Behavioral Sciences3 credit
- Select one course from the Physical and
Biological Sciences.....4 credit

■ Core Requirements • 44 credits

- MET 110 Manufacturing Fundamentals.....3 credit
- MET 120 Industrial Mechanics I.....5 credit
- MET 130 Industrial Electrical Systems4 credit
- MET 140 Introduction to Programmable
Logic Controllers4 credit
- MET 150 Industrial Mechanics II.....6 credit
- MET 160 Rotating Electrical Machines4 credit
- MET 200 Robotics and Motion Control4 credit
- MET 210 Process Control & Instrumentation3 credit
- MET 220 Advanced Programmable
Logic Controllers4 credit
- MET 230 Integrated Manufacturing Systems3 credit
- MET 240 Mechatronics Application Project.....4 credit

Medical Assistant (MDA) (AAS/CAS)

About this Program

The Northland Pioneer College Medical Assistant program trains students for a career providing patient care and physician assistance in medical offices and clinics. Classes include front- and back-office theory and procedures, preparing students for national certification examination. A 160-hour externship is required.

Associate of Applied Science (AAS)

About this Degree • 64 credits

To complete an **Associate of Applied Science degree in Medical Assistant** a student must complete 18 general education requirement credits, 34 program core requirement credits, nine credits of required electives and three credits of unrestricted electives.

■ General Education Requirements • 18 credits

Communications • 6 credits

- ENL 101 College Composition I3 credit
- Plus one of the following:
- ENL 102 College Composition II.....3 credit
- ENL 109 Technical Writing.....3 credit

Mathematics • 3 credits

- Any MAT course numbered 100 or higher3 credit

Discipline Studies • 9 credits

- Per AAS Discipline Studies list on page 60-61.
- Arts and Humanities.....3 credit
- Social and Behavioral Sciences.....3 credit
- and PSY 101 Introduction to Psychology.....3 credit

■ **Core Requirements • 34 credits**

- BIO 160 Introduction to Human Anatomy and Physiology4 credit or
 - BIO 201 AND 202*
Human Anatomy and Physiology I & II
 - BUS 119 Medical Office
Administrative Procedures..... 3 credit
 - BUS 231 MS Office Level I..... 3 credit
 - HES 109 Phlebotomy.....4 credit
 - HES 170 Medical Terminology
for Clinical Health Professionals..... 3 credit
 - HES 180 Basic Pharmacology..... 3 credit
 - MDA 124 Clinical Procedures I 5 credit
 - MDA 125 Clinical Procedures II..... 5 credit
 - MDA 126 Medical Assistant Externship..... 4 credit
- *See an NPC academic adviser if selecting the BIO 201/202 option*

■ **Required Electives • 9 credits**

Select a minimum of nine credits from the following courses:

- BUS 105 Techniques of Supervision 3 credit
- BUS 112 Fundamentals of Bookkeeping..... 3 credit
- CIS 105 Computer Applications and
Information Technology 3 credit
- HES 120 Law and Ethics
of the Health Care Professional..... 3 credit
- HES 145 Nutrition..... 3 credit

■ **Unrestricted Electives • 3 credits**

- Any unduplicated 100 or higher level course..... 3 credit

Certificate of Applied Science (CAS)

To complete a **Certificate of Applied Science in Medical Assistant**, a student must complete **40 credit hours**: 34 core requirement credits, three credits from ENL 101 and three MAT credits.

Nursing (NUR) (AAS/CAS)

About this Program

Northland Pioneer College Nursing Programs include:

- Nursing Assistant Training
- LPN-RN Transition
- Multiple Exit Program
CNA to RN
- RN Refresher Program

These nursing programs prepare students to make application to take the certified nursing assistant exam and the National Council Licensing Examination for practical (NCLEX-PN) and/or registered nursing (NCLEX-RN). Successful completion of the certifying exam prepares students for entry-level positions in providing direct patient care. Admission to or graduation from the program at any level does not guarantee licensure by the Arizona State Board of Nursing.



Requirements: Graduates must satisfy the licensing requirements of the State Board of Nursing independently of any college requirements per the Arizona Nurse Practice Act. Under Arizona Law, an applicant could be denied certification as a nursing assistant or licensure as a registered or practical nurse if convicted of a felony or addicted to habit-forming drugs, or if the applicant in any other way fails to meet qualifications required by law.

In 1997 the Nursing Program became part of the Healing Community composed of five rural community colleges and Northern Arizona University that work together on a collaborative basis. The Healing Community designed a common curriculum that provides students an opportunity for seamless articulation from an Associate of Applied Science in Nursing Degree (AAS) to a baccalaureate of nursing degree (BSN). When the graduate becomes a registered nurse, he or she can apply to Northern Arizona University to complete the upper division courses in nursing that apply to a BSN.

Emphasis: Northland Pioneer College’s Multiple Exit Program, approved by the Arizona State Board of Nursing, is offered on the White Mountain (Show Low) and Little Colorado (Winslow) campuses. Many of the required courses for admission and general education courses are available at other NPC campuses and centers. The program of 72 credit hours includes prerequisites and is designed for two academic years dedicated to the study of nursing. After completion of the first year with the addition of the Practical Nurse Completion course, the student nurse can receive a Certificate of Applied Science in Practical Nursing and apply to write the NCLEX-PN. The student nurse may then exit the program or continue on to earn the Associate of Applied Science Degree, and be qualified to take the NCLEX-RN exam.

For the student who is a **Licensed Practical Nurse (LPN)**, who wishes to enter the program to acquire the Associate of Applied Science in Nursing Degree and become a Registered Nurse (RN), the prerequisite requirements are identical to the Multiple Exit Program. The student should meet with an NPC academic adviser and provide evidence of course content and classroom hours for their LPN training. This documentation will be submitted to Records and Registration for determination of assessed credit for NUR 121, NUR 122, and NUR 125. Evaluation and approval of assessed credit does not guarantee admission to the Nursing program. Decisions regarding acceptance are determined by the Nursing Admission Committee. Additional fees may apply for credit by evaluation. Students apply in the fall and complete the LPN to RN transition course in the spring semester. Prerequisites must be complete prior to enrolling in the third semester NUR 221 nursing course. The student is eligible to take the National Council Licensing Examination for Registered Nursing (NCLEX-RN) when the core nursing courses are successfully completed.

■ Student Nurse Guidelines

Patient safety dictates that specific Nursing Program student guidelines apply to this program that are more stringent than the general college student policies. A copy of the *Nursing Program Student Handbook* is issued to students admitted to the program. In case of state-mandated changes, curriculum and/or guidelines could change.

Clinical experiences take place in various health care agencies in and outside of Northland’s district. Hours may vary from the class schedule depending on the clinical placement. Travel and overnight stays may be required.

■ Prerequisites for Program Admission

Courses

Before the student will be considered eligible to enter the Nursing Program, certain prerequisites must be met. Successful completion with a ‘C’ grade or better for each class and a cumulative GPA of ‘B’ (3.0 on a 4.0 scale) is required.

- BIO 181 General Biology4 credit
- BIO 201 Human Anatomy and Physiology I4 credit
- BIO 202 Human Anatomy and Physiology II4 credit
- CHM 130 Fundamental Chemistry4 credit
- BIO 205 Microbiology.....4 credit
- ENL 101 College Composition I3 credit

Licensing Requirements

Applicants to the LPN to RN program must hold a current Arizona Licensed Practical Nurse (LPN) license in good standing.

Applicants to the RN Refresher program must acquire a temporary license from the Arizona State Board of Nursing.

■ Admission to the Nursing program

Note: Admission to the college does not guarantee admission to the Nursing Program.

- Students must be admitted to the Nursing Program in order to enroll in nursing courses. (Admission information is available in the academic advising and the nursing program areas.)
- Applicants to the CNA to RN nursing program must hold a current Arizona Certified Nursing Assistant (CNA) license in good standing.
- Completed nursing application should be submitted on or before the designated deadline that is noted in the application packet. Late applicants may be accepted on a space-available basis if they meet the admission criteria but not before applicants who submit applications on time.
- All prerequisite courses must be completed prior to July 1 for admission to the program.

Admission Selection:

Admission criteria will include: HESI Admission Assessment test composite and cumulative scores, prerequisite GPA, overall GPA, applicant statement. The factors will be weighted by the committee. Significant weight will be given to the HESI composite percentage and prerequisite GPA. Admission is contingent upon completion of program prerequisites by July 1.

- General Education and core requirements must be completed as listed on the curriculum outline in the program admission information packet.
- College credits over eight years old must be evaluated. For a determination, provide appropriate documentation to the dean of nursing and allied health.
- Transfer students for second, third or fourth semesters are considered on an individual basis. Criteria include course comparables, GPA, specified examination results, and recommendation from previous program director.

**Associate of Applied Science
Registered Nursing (AAS)**

About this Degree • 72 credits

To earn an Associate of Applied Science Registered Nursing degree, the student must complete the following 72 credits.

■ General Education Requirements • 32 credits

Communications • 6 credits

- ENL 101 College Composition I3 credit
- ENL 102 College Composition II.....3 credit

Mathematics

Compass Algebra score of 46 or ASSET Elementary Algebra score of 41 or ACT Math score of 21 within one year prior to application to the nursing program.

Arts and Humanities

No requirements

Physical and Biological Sciences • 20 credits

- CHM 130 Fundamental Chemistry4 credit
- BIO 181 General Biology4 credit
- BIO 201 Human Anatomy and Physiology I.....4 credit
- BIO 202 Human Anatomy and Physiology II4 credit
- BIO 205 Microbiology.....4 credit

Social and Behavioral Sciences • 6 credits

- PSY 240 Developmental Psychology.....3 credit
- Plus one of the following:
- ANT 102 Cultural Anthropology.....3 credit
- SOC 120 General Sociology.....3 credit

AREAS OF SPECIALIZATION

■ CNA to RN

■ Core Requirements • 40 credits

NUR 117 Pharmacology I.....	2 credit
NUR 118 Pharmacology II.....	2 credit
NUR 121 Nursing I.....	8 credit
NUR 122 Nursing II.....	8 credit
NUR 125 Practical Nurse Completion.....	2 credit
NUR 221 Nursing III.....	8 credit
NUR 222 Nursing IV.....	8 credit
NUR 219 NCLEX Review Seminar.....	2 credit

Certificate of Applied Science Practical Nursing (CAS)

To complete the **Certificate of Applied Science in Practical Nursing**, the student must complete a total of **51 credits** as follows: 29 General Education Requirements, and 22 credits from Core Requirements.

■ General Education Requirements • 29 credits

BIO 181 General Biology.....	4 credit
BIO 201 Human Anatomy and Physiology I.....	4 credit
BIO 202 Human Anatomy and Physiology II.....	4 credit
BIO 205 Microbiology.....	4 credit
CHM 130 Fundamental Chemistry.....	4 credit
ENL 101 College Composition I.....	3 credit
ENL 102 College Composition II.....	3 credit
PSY 240 Developmental Psychology.....	3 credit

■ Core Requirements • 22 credits

NUR 117 Pharmacology I.....	2 credit
NUR 118 Pharmacology II.....	2 credit
NUR 121 Nursing I.....	8 credit
NUR 122 Nursing II.....	8 credit
NUR 125 Practical Nurse Completion.....	2 credit

Nursing Assistant (NAT) (CP)

About this Program

The Nursing Assistant Certificate of Proficiency (CP) is designed to provide a curriculum to improve student knowledge about the health care field. Successful completion includes the required course content and hours specified by the Arizona Nurse Practice Act making a student eligible to take the Arizona state test to become a Certified Nursing Assistant (CNA). This certification not only establishes direct-to-work credentials, it is a creditable foundation for students interested in pursuing other, allied health careers. CNA certification is a mandatory requirement for entering the NPC Nursing Program. Students are required to provide fingerprint identification when applying for the CNA license.

Requirements: To earn the Certificate of Proficiency in Nursing Assistant, a student must complete the program with a grade point average of 'C' or better. Additionally, under the Arizona Nurse Practice Act, an applicant can be denied certification as a nursing assistant if convicted of a felony or addicted to habit-forming drugs or if the applicant in any other way fails to meet qualifications required by law. To enter any clinical coursework, a current TB skin test must be completed.

Certificate of Proficiency (CP)

■ Nursing Assistant • 20 credits

ENL 101 or higher, with grade C or better.....	3 credit
HES 120 Law and Ethics of the Health Care Professional.....	3 credit
HES 145 Nutrition.....	3 credit
HES 170 Medical Terminology.....	3 credit
MAT 103 or MAT 105 or MAT 109 or MAT 112 or any mathematics course for which MAT 112 is a prerequisite, with grade C or better.....	3 credit
NAT 101.....	5 credit

Paramedicine (EMT) (AAS/CAS/CP)

About this Program

The Paramedicine program, under the regulations of the Arizona Department of Health Services (DHS) with the cooperation of local, state and private medical institutions and emergency medical services agencies, educates EMT Basics up to the level of Paramedic. The program utilizes the most current standards of the National Association of EMS Educators.

The NPC Paramedicine program also fulfills the Arizona Department of Health Services mandatory requirement of 500 hours of didactic training with 500 hours of clinical and vehicular training.

To obtain further information, contact the Paramedicine Program at the White Mountain Campus in Show Low, (800) 266-7845, ext. 6715.

Associate of Applied Science (AAS)

About this Degree • 70 credits

The **Associate of Applied Science degree in Paramedicine** requires 18 general education credits and 52 credit hours of core requirements. The core requirement credits are divided into the preparatory course of Basic Electrocardiogram (ECG) and Pharmacology followed by completion of Paramedic Training I and II.

Prerequisites to qualify for acceptance into the program include: (1) be an Arizona certified EMT-Basic with a minimum of one year experience. (2) Meet NPC placement requirements for ENL 101 (College Composition I) and MAT 101 (Basic Technical Mathematics). (3) Have successfully completed a hazardous materials first responder course (minimum 24 clock hours). (4) have a TB skin test within six months of the start of the program and MMR and hepatitis B immunization or waiver.

In addition, applicant must pass a written exam, a practical skills test and an oral interview.

■ General Education Requirements • 18 credits

Communications • 6 credits

- ENL 101 College Composition I 3 credit
- Plus one of the following:
- ENL 102 College Composition II 3 credit
- ENL 109 Technical Writing 3 credit
- SPT 120 Public Speaking 3 credit

Mathematics • 3 credits

Select one of these mathematics courses, or any course for which MAT 112 is a prerequisite.

- MAT 101 Basic Technical Mathematics 3 credit
- MAT 103 Business Mathematics 3 credit
- MAT 105 Mathematics for General Education 3 credit
- MAT 109 Algebra I: Introductory 3 credit
- MAT 112 Algebra II: Intermediate 3 credit

Arts and Humanities • 3 credits

Select one Arts and Humanities course from the AAS Discipline Studies list on page 60. (PHL 105 is recommended but not required).

Social and Behavioral Sciences • 6 credits

- PSY 101 Introduction to Psychology 3 credit
- and
- Any course from the Social and Behavioral Sciences AAS Discipline Studies list on page 61 3 credit

■ Core Requirements • 52 credits

- EMT 240 Basic ECG and Pharmacology 3 credit
- EMT 244 Paramedic Training I 23 credit
- EMT 245 Paramedic Training II 26 credit
- Plus 500 clinical and vehicular hours are mandatory for completion of any paramedic program per AZDHS.

Certificate of Applied Science (CAS)

To complete a **Certificate of Applied Science in Paramedicine** a student must complete the 52 core requirement credits, ENL 101, and MAT 101 or MAT 103 or MAT 105 or MAT 109 or MAT 112 or any mathematics course for which MAT 112 is a prerequisite (**58 credits**).

Certificate of Proficiency (CP)

To complete the Certificate of Proficiency in Paramedicine, the student must complete the following 52 credits:

- EMT 240 Basic ECG and Pharmacology 3 credit
- EMT 244 Paramedic Training I 23 credit
- EMT 245 Paramedic Training II 26 credit
- Plus 500 clinical and vehicular hours are mandatory for completion of any paramedic program per AZDHS.

Photography Technician (PHO)

(AAS/CAS/CP)

About this Program

The Photography Technician program prepares graduates to apply technical skills and aesthetics in photography. Photographers and camera operators use camera and film to portray people, places and events much as writers use words.

Salaried jobs for photographers are found, for the most part, in photographic or commercial art studios. About half of all photographers and camera operators are self-employed. Many are freelance photographers who do individual projects on a one-time only or occasional basis.

Local career opportunities exist in all Northland district communities in varying degrees, but career opportunities also exist in suburban and metropolitan areas throughout the state and nation. Related occupations include visual artists, illustrators, designers, painters, sculptors, and graphic communications technicians.

The NPC Photography Technician program is available at the White Mountain Campus in Show Low. Interested persons from other communities will probably need to attend part or most of the program at that location.

Associate of Applied Science (AAS)

About this Degree • 64 credits

To earn an **Associate of Applied Science degree in Photography Technician** the student must complete 16 general education credits, 27 core requirement credits, 15 credits of required electives, and six credits of unrestricted electives.

■ **General Education Requirements • 16 credits**

Communications • 6 credits

- ENL 101 College Composition I 3 credit
 Plus one of the following:
 ENL 102 College Composition II 3 credit
 ENL 109 Technical Writing 3 credit
 SPT 120 Public Speaking 3 credit

Mathematics • 3 credits

- MAT 101 Basic Technical Mathematics 3 credit

Discipline Studies • 7 credits

Per the AAS Discipline Studies list on page 60-61.

■ **Core Requirements • 27 credits**

- PHO 100 Beginning Photography 3 credit
 PHO 115 Pictorial Journalism 3 credit
 PHO 200 Intermediate Photography 3 credit
 PHO 212 Color Photography I 3 credit
 PHO 213 Color Photography II 3 credit
 PHO 220 Advanced Photography 3 credit
 PHO 230 View Camera Photography 3 credit
 PHO 240 Photography Portfolio 3 credit
 PHO 250 Photography As An Art Medium 3 credit

■ **Required Electives • 15 credits**

Select a minimum of 15 credits from the following list:

- ART 103 Basic Design 3 credit
 BUS 100 Introduction to Business 3 credit
 BUS 110 Small Business Management 3 credit
 PHO 198 Internship 1-8 credit
 PHO 199 Workshop 0.5-6 credit
 PHO 299 Special Problems 1-3 credit

■ **Unrestricted Electives • 6 credits**

Select any unduplicated 100 or higher level courses.

Certificate of Applied Science (CAS)

To complete a **Certificate of Applied Science in Photography Technician**, a student must complete the core requirement credits, ENL 101 and MAT 101 (**33 credits**).

Certificates of Proficiency (CP)

■ **Black and White Photography • 17 credits**

- PHO 100 Beginning Photography 3 credit
 PHO 115 Pictorial Journalism 3 credit
 PHO 200 Intermediate Photography 3 credit
 PHO 220 Advanced Photography 3 credit
 PHO 230 View Camera Photography 3 credit
 PHO 280 Photography Practicum 2 credit

■ **Color Photography • 16.5–21 credits**

- PHO 100 Beginning Photography 3 credit
 PHO 200 Intermediate Photography 3 credit
 PHO 212 Color Photography I 3 credit
 PHO 213 Color Photography II 3 credit
 PHO 245 Photography Desktop Publishing 3 credit
 PHO 199 Workshop 0.5-3 credit
 PHO 299 Special Problems 1-3 credit

■ **Photography Marketing • 18 credits**

- PHO 100 Beginning Photography 3 credit
 PHO 200 Intermediate Photography 3 credit
 PHO 212 Color Photography I 3 credit
 PHO 240 Photography Portfolio 3 credit
 PHO 245 Photography Desktop Publishing 3 credit
 PHO 270 Freelance/Stock Photography 3 credit

Welding (WLD) (AAS/CAS/CP)

About this Program

The Welding Program is designed to teach incremental levels of welding skills, which enable students to achieve nationally recognized certifications (NCCER/AWS Level 1 Entry Level Welder and Level 2 Advanced Level Welder). Industry markets acknowledge each certificate level is proof of acquired skills in various forms of welding, cutting, base metal preparation, welding inspection, safety, and metallurgy. This prepares students for certification tests in specific welding code applications, such as AWS, API, and ASME Sec IX.

In addition to welder certifications, students are afforded the opportunity to obtain Certificates of Proficiency, Certificate of Applied Science and an Associate of Applied Science degree.

Certification Levels from Northland enhance career opportunities for graduates as certified welders throughout the nation.

Associate of Applied Science (AAS)

About this Degree • 64 credits

To earn an **Associate of Applied Science degree in Welding** the student must complete 16 general education requirement credits, 45 credits of core requirements, and three credits of required electives.

■ General Education Requirements • 16 credits

Communications • 6 credits

- ENL 101 College Composition I 3 credit
- Plus one of the following:
- ENL 102 College Composition II..... 3 credit
- ENL 109 Technical Writing..... 3 credit
- SPT 120 Public Speaking..... 3 credit

Mathematics • 3 credits

- MAT 101 Basic Technical Mathematics 3 credit
- MAT 152 Advanced Algebra 3 credit

Discipline Studies • 7 credits

Select Per the AAS Discipline Studies list on page 60-61.

■ Core Requirements • 45 credits

LEVEL I (19 credits)

- WLD 100 Safety and Mathematics..... 2 credit
- WLD 150 Symbols, Drawings/Metal Preparation... 2 credit
- WLD 151 Cutting Process and Welding Quality 3 credit
- WLD 152 SMAW Plate I 3 credit
- WLD 153 SMAW Plate II..... 3 credit
- WLD 154 GMAW Plate 3 credit
- WLD 155 GTAW Plate 3 credit

Level II (26 credits)

- WLD 260 Weld Fit Up/Inspection/Metallurgy 2 credit
- WLD 261 SMAW Open V-Butts/Plate I..... 3 credit
- WLD 262 SMAW Open V-Butts/Plate II 3 credit
- WLD 263 SMAW Open Root/Pipe I 3 credit
- WLD 264 SMAW Open Root/Pipe II..... 3 credit
- WLD 265 GMAW Pipe 3 credit
- WLD 266 FCAW Pipe..... 3 credit
- WLD 267 GTAW Pipe I 3 credit
- WLD 268 GTAW Pipe II..... 3 credit

■ Required Electives • 3 credits

Student must complete a minimum of three credits from the following:

- WLD 156 AWS Level 1 (Certification Preparation) 2 credit
- WLD 157 AWS Level 1 Certification (Entry Level Welder)..... 4 credit
- WLD 240 Intro to Plastics..... 2 credit
- WLD 241 Plastic Welding..... 2 credit
- WLD 242 Fabrication of Plastics 2 credit
- WLD 243 Plastic Welding 2 credit
- WLD 290 Welding Fabrication 3 credit
- WLD 291 Internship for Welding 2 credit

Certificate of Applied Science (CAS)

To complete a **Certificate of Applied Science in Welding**, a student must complete the core requirements, ENL 101 and MAT 101 (**25-32 credits**).

Certificates of Proficiency (CP)

■ Gas Tungsten Arc Welding (TIG)

• 9 credits

WLD 155 GTAW Plate.....	3 credit
WLD 267 GTAW Pipe I.....	3 credit
WLD 268 GTAW Pipe II.....	3 credit

■ Gas Metal Arc Welding (MIG)

• 6 credits

WLD 154 GMAW Plate.....	3 credit
WLD 265 GMAW Pipe.....	3 credit

■ Plastic Welding • 8 credits

WLD 240 Intro to Plastics.....	2 credit
WLD 241 Plastic Welding.....	2 credit
WLD 242 Fabrication of Plastics.....	2 credit
WLD 243 Plastic Welding.....	2 credit

■ Shielded Metal Arc Welding (Arc)

• 12 credits

WLD 152 SMAW Plate I.....	3 credit
WLD 153 SMAW Plate II.....	3 credit
WLD 261 SMAW Open V-Butts/Plate I.....	3 credit
WLD 262 SMAW Open V-Butts/Plate II.....	3 credit

■ Welding Level I –

Entry Level Welder • 19 credits

WLD 100 Safety and Math.....	2 credit
WLD 150 Symbols, Drawings/Metal Preparation...	2 credit
WLD 151 Cutting Process and Welding Quality	3 credit
WLD 152 SMAW Plate I.....	3 credit
WLD 153 SMAW Plate II.....	3 credit
WLD 154 GMAW Plate.....	3 credit
WLD 155 GTAW Plate.....	3 credit

■ Welding Level II –

Advanced Welder • 26 credits

Student must complete all of the requirements for Welding Level I and receive a **Certificate of Proficiency** for Level I before receiving the Welding Level II certificate.

WLD 260 Weld Fit Up/Inspection/Metallurgy.....	2 credit
WLD 261 SMAW Open V-Butts/Plate I.....	3 credit
WLD 262 SMAW Open V-Butts/Plate II.....	3 credit
WLD 263 SMAW Open Root/Pipe I.....	3 credit
WLD 264 SMAW Open Root/Pipe II.....	3 credit
WLD 265 GMAW Pipe.....	3 credit
WLD 266 FCAW Pipe.....	3 credit
WLD 267 GTAW Pipe I.....	3 credit
WLD 268 GTAW Pipe II.....	3 credit