

## **2021-2022 General Catalog and Student Handbook Addendums**

### **Added Courses:**

AMA 101 - Personal Success I, Industrial Safety and Intro to Aviation & Aviation Manufacturing  
3 credits

This course provides instruction in Personal Success and basic workplace skills, and basic aviation safety and manufacturing. Topics include resume writing, workplace etiquette, aviation, safety, and manufacturing. Upon completion, students will be able to write industry relevant resumes, describe general aviation and working safety at heights with tools.

AMA 110 - Precision Measurement and Quality Control  
3 credits

This course provides instruction in precision measurement and quality control. Topics include precision measurement, calibration, and quality control. Upon completion, students will be able to demonstrate the use of basic measurement tools and gages and performance of field checks.

AMA 112 - Aviation Electrical Measurement, Terminations, and Intro to Lean Manufacturing  
3 credits

Prerequisite(s): AMA 212

This course provides instruction in aviation electrical measurement, terminations, and lean manufacturing. Topics include electrical measurements and lean manufacturing. Upon completion, students will be able to use electrical measurement tools, including multimeter, and insulation testers.

AMA 211 - Aerostructure Assembly II  
3 credits

Prerequisite(s): AMA 111

This course provides intermediate instruction in Aerostructure Assembly. Topics include industrial safety, production order flows, lean manufacturing, and blueprint reading. Upon completion, students will be able to identify proper safety procedures used in sheet metal assembly, apply layout techniques, and demonstrate measurement of components, drilling and reiveting techniques.

AMA 212 - Personal Success II and Intro to Aviation Electrical Assembly  
3 credits

Prerequisite(s): Grade of C or Higher in AMA 101

This course provides instruction in personal success and electrical assembly in aviation manufacturing assembly. Topics include tax documents, checking account/budgets, workplace benefits/insurance, and aviation electrical assembly. Upon completion, students will be able to open a checking account and prepare a budget and be able to select and operate proper tooling for wire and crimp terminations for connectors and contacts.

ART 121 - Two-Dimensional Composition I  
3 credits

This course introduces the basic concepts of two-dimension design. Topics include the elements of art and principles of design with emphasis on the arrangements and relationships among them.

Note: Course may be used in Area V for AS/AA degrees

AUT 208 - Automated System Diagnostics and Troubleshooting  
3 credits

This course focuses on systematically solving problems in automated systems. Emphasis is placed on safety, test equipment, basic troubleshooting techniques and hands on problem solving. Upon completion, students will be able to use a systematic process to solve complex malfunctions.

CRJ 150 - Introduction to Corrections  
3 credits

This course provides an introduction to the philosophical and historical foundations of corrections in America. Incarceration and some of its alternatives are considered.

Note: Course may be used in Area V for AS/AA degrees

DNC 101 - Dance Appreciation  
3 credits

This course is an introduction to dance through the analysis of historical and contemporary dance forms. Students will examine dance as an expression of human culture and analyze key developments in dance related to social, political, and historical changes/events. Films, demonstrations, and performances are used in this class.

Note: Course may be used in Area V for AS/AA degrees

HED 221 - Personal Health  
3 credits

This course introduces principles and practices of personal and family health; it includes human reproduction, growth and development, psychological dimensions of health, human sexuality, nutrition and fitness, aging, death and dying.

Note: Course may be used in Area V for AS/AA degrees

IET 231 - Introduction to Programmable Controls  
3 credits

This course provides an introduction to programmable logic controllers. Emphasis is placed on, but not limited to, the following: PLC hardware and software, numbering systems, installation, and programming. Upon completion, students must demonstrate their ability by developing, loading, debugging, and optimizing PLC programs.

INT 114 - Basic Electricity  
3 credits

This course provides an introduction to direct current (DC) and alternating current (AC) electrical theory. Topics include atomic theory, magnetism, properties of conductors and insulators, and characteristics of series, parallel, and series-parallel circuits. Inductors and capacitors are introduced and their effects on DC and AC circuits are examined. Students are prepared to analyze complex circuits, solve for unknown circuit variables and use basic electronic test equipment. This course also provides hands on laboratory exercises to analyze, construct, test, and troubleshoot electrical circuits. Emphasis is placed on the use of a scientific calculator, the operation of common test equipment, and the physical wiring of electrical circuits.

INT 117 - Principles of Industrial Mechanics  
3 credits

This course provides instruction in basic physics concepts applicable to the mechanics of industrial production equipment. Topics include the application of mechanical principles with emphasis on power transmission, specific mechanical components, alignment, and tension. Upon completion, students will be able to perform basic troubleshooting, repair and maintenance functions on industrial production equipment.

INT 127 - Principles of Industrial Pumps and Piping Systems  
3 credits

This course provides instruction in the fundamental concepts of industrial pumps and piping systems. Topics include pump identification, operation, and installation, maintenance and troubleshooting, and piping systems, and their installation. Upon course completion, students will be able to install, maintain, and troubleshoot industrial pumps and piping systems.

INT 158 - Industrial Wiring I  
3 credits

This course focuses on principles and applications of commercial and industrial wiring. Topics include, electrical safety practices, an overview of National Electric Code requirements as applied to commercial and industrial wiring, conduit bending, circuit design, pulling cables, transformers, switch gear, and generation principles.

MCM 100 - Introduction to Mass Communication  
3 credits

This course provides the student with general study of mass communication and journalism. This course includes theory, development, regulation, operation, and effects upon society.

Note: Course may be used in Area V for AS/AA degrees

### NUR 299 - Special Topics in Nursing

1 credits

Prerequisite(s): As required by program

Pre or Co-requisite(s): As required by program

This course allows study of currently relevant topics in nursing. The course may be repeated for credit for each different topic covered. Course content will be determined by the instructor and will vary according to the topic being covered.

### ORI 105 - Orientation and Student Success

3 credits

This course is designed to orient students to the college experience by providing them with tools needed for academic and personal success. Topics include: developing an internal locus of control, time management and organizational skills, critical and creative thinking strategies, personal and professional maturity, and effective study skills for college and beyond.

Note: Course may be used in Area V for AS/AA degrees

### PCT 115 - Instrumentation I

3 credits

This course covers process variables and various instruments used to sense, measure, transmit and control these variables. It introduces the student to control loops and the elements that are found in different types of loops such as controllers, regulators and final control elements. It concludes with a study of instrumentation drawings and diagrams, and a unit on troubleshooting instrumentation.

### PCT 122 - Introduction to Process Technology

3 credits

This course provides a basic orientation for operators in the chemical process industries and introduces many of the terms and ideas which will be encountered in the workplace. Topics include operator roles, responsibilities, expectations, terminology, liabilities, chemistry, physics, basic plant equipment, general product handling, flow diagrams, utility systems, plant organization, and the basics of process control. Upon completion, students should have a general knowledge of the tasks, responsibilities, skills and attitude necessary to be a chemical operator in a process industry.

PCT 220 - Process Technology II - Systems  
4 credits

This course is a study of the interrelations of process equipment and process systems. Students will be able to arrange process equipment into systems; describe the purpose and function of specific process systems, explain how factors affecting process systems are controlled under normal conditions, and recognize abnormal process conditions. Students are also introduced to the concept of system process control manufacturing plant process economics.

PCT 231 - Statistical Control  
3 credits

Prerequisite(s): MTH 098

This course focuses on statistics and probability and how they apply to control charts with heavy emphasis on the normal curve and its many applications in quality and process control. Emphasis is placed on the development and use of control charts in industry. Upon completion, students should be able to construct and use control charts plus understand and use probability to make better operating decisions.

PCT 240 - Process Troubleshooting  
4 credits

This course involves instruction in different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collection and analysis, cause-effect relationships and reasoning. In addition to troubleshooting static equipment problems as presented within a textbook, dynamic problems will also be presented via a process simulator for problem resolution by the student.

PED 216 - Sports Officiating  
3 credits

This course surveys the basic rules and mechanics of officiating a variety of sports, including both team and individual sports. In addition to class work, students will receive at least 3 hours of practical experience in officiating.

Note: Course may be used in Area V for AS/AA degrees

PED 218 - Advanced Basketball Rules and Officiating Techniques  
3 credits

Prerequisite(s): PED 217

This course presents advanced rules and techniques for sports officiating in high school basketball. Emphasis is placed on officiating fundamentals and responsibilities. Upon completion, students should be able to demonstrate proper mechanics and knowledge of officiating procedures in basketball.

Note: Course may be used in Area V for AS/AA degrees

PHY 115 - Technical Physics  
4 credits

Prerequisite(s): MTH 100

torque, work energy, heat wave/sound, and electricity. Results of physics education research and physics applications in the workplace are used to improve the student's understanding of physics in technical areas. Upon completion, students will be able to: define motion and describe specific module concepts; utilize microcomputers to generate motion diagrams; understand the nature of contact forces and distinguish passive forces; work cooperatively to set-up laboratory exercises; and demonstrate applications of module-specific concepts.

Note: Course may be used in Area V for AS/AA degrees

THR 120 - Theatre Appreciation  
3 credits

This course is designed to increase appreciation of contemporary theater. Emphasis is given to the theater as an art form through the study of history and theory of drama and the contributions to modern media. This course places emphasis on playwright, actor, director, designer, and technician to modern media. Attendance at theater productions may be required.

Note: Course may be used in Area V for AS/AA degrees

WDT 116 - GTAW Stainless Pipe  
3 credits

This course is designed to provide the student with the practices and procedures of welding stainless steel pipe using the gas tungsten arc weld (GTAW) process. Emphasis is placed on pipe positions, filler metal selection, purging gasses, joint geometry, joint preparation and fit-up. Upon completion, students should be able to identify pipe positions, filler metals, purging gas, proper joint geometry, joint preparation, and fit-up to the applicable code.

## **Re-Activated Courses:**

BIO 101 - Introduction to Biology I  
4 credits

This is an introductory course designed for non-science majors. It includes physical, chemical, and biological principles common to all organisms. These principles are explained through a study of the scientific method, biological organization, cellular structure, bioenergetics of a cell, cell reproduction, gene theory, inheritance, and evolution.

Lab: A 120-minute laboratory is required.

BIO 102 - Introduction to Biology II  
4 credits

Prerequisite(s): BIO 101

This course is the second of a two-course sequence for non-science majors. It covers evolutionary principles and relationships, environmental and ecological topics, classification, and a survey of biodiversity.

Lab: A 120-minute laboratory is required.

HEC 140 - Principles of Nutrition  
3 credits

This course introduces students to the principles of nutrition and the role and functions of nutrients in man's food. Basic information concerning food selection and nutrition as a factor in health, ecology, and economy is included. Implications of nutrition for children may be stressed.

Note: Note: Course may be used in Area V for AS/AA degrees

## **Policy Updates**

## **General Admission Requirements**

An applicant who has not previously attended a duly accredited postsecondary institution will be designated as a first-time college student or a native student. All first-time college students must attend an orientation session to complete advisement and orientation activities before registration.

It is also required that first-time college students take The Wildcat Way, (ORI 101), a college orientation course.

## Admission Requirements

All students must complete an admission application, submit one primary form of identification, provide a high school transcript or GED, and any other supplemental documentation that may be required prior to beginning the registration process.

Examples of primary forms of documentation, (other documents may be accepted at the discretion of the College):

- Unexpired Alabama driver's license
- Unexpired Alabama identification card
- Unexpired U.S. passport
- Unexpired U.S. permanent resident card
- Resident Alien Card - Pre 1997
- Unexpired Driver's License or instruction permit from another state or possession that verifies lawful presence, dated 2000 and beyond
- U.S. Alien Registration Receipt Card (form I-151) prior to 1978
- BIA or tribal identification card with photo

Applicants may submit the identification in person or they may take a picture and email a copy to [driverslicense@bishop.edu](mailto:driverslicense@bishop.edu).

\*Applicants who fail to satisfy the forms of identification requirement will not be admitted to the College.\* ~~DELETED~~

## Admission to Courses Creditable Toward an Associate Degree

To be eligible for admission to courses creditable toward an associate degree, a first-time college student must meet one of the following criteria:

- Applicants with an Alabama High School Diploma, a high school diploma of another state equivalent to an Alabama high school diploma, or an equivalent diploma issued by a non-public regionally and/or state accredited high school; **OR**
- Applicants who have attended a non-accredited high school who have successfully completed courses of study on the secondary level (as evidenced by an official transcript) may be admitted; **OR**
- Applicants who cannot comply with either of the above conditions may be admitted upon presentation of a Certificate of High School Equivalency (GED Certificate) evidenced by an official copy of scores from the testing site. The applicant must hold the GED Certificate prior to enrollment.

### *A. First Time College Students*

#### **Unconditional Admission of First-Time College Students**

Applicants must have on file at the College a completed application for admission, one primary form of documentation, and either an official transcript from the high school attended or an official GED Certificate. Students who have completed dual enrollment coursework from another regionally accredited institution will be required to submit an official transcript from that institution as well. **\*All male students between the ages of 18 and 26 must register by law with the U.S. Selective Service System. DELTED\***

#### **Conditional Admission of First-Time College Students**

Students who have applied but not submitted all required documentation to the College shall be admitted as conditional status. No student will be allowed to enroll for a second semester unless all required admission documents have been received by the College prior to the start of the student's second semester. Likewise, official Bishop State transcripts will not be released until all required admission documents have been received by the College.

Students who are conditionally admitted to the College are ineligible to receive federal financial aid benefits.

### *B. Transfer Students*

Applicants who have previously attended another regionally accredited or Council on Occupational Education accredited postsecondary institution will be considered transfer students and will be required to furnish official transcripts of all work attempted at all said institutions. Applicants who have been suspended from another institution for academic or disciplinary reasons will not be considered for admission except upon appeal to the Admissions Committee.

#### **Unconditional Admission of Transfer Students**

Students who have submitted to the College an application for admission and official transcripts from all duly accredited postsecondary institutions attended and their official high school transcript or GED shall be admitted as unconditional. Applicants who have completed an Associate Degree will be required to submit only the transcript from the institution granting the degree unless transfer credit is required from an institution other than the one the Associate Degree was awarded; these students do not have to submit a high school transcript or GED. Some programs may require all college transcripts be submitted regardless of the degree that was obtained.

#### **Conditional Admission of Transfer Students**

Students who have applied but not submitted all required documentation to the College shall be admitted as conditional status. No student will be allowed to enroll for a second semester unless all required admission documents have been received by the College prior to the start of the student's second semester. Likewise, official Bishop State transcripts will not be released until all required admission documents have been received by the College.

Students who are conditionally admitted to the College are ineligible to receive federal financial aid benefits.

#### *C. Transient Students*

Students who attend an institution other than Bishop State Community College, who seek credit for transfer to their home institution, may be admitted as a transient student. The student must submit an application for admission, primary form of documentation, and a "letter of transiency" from the institution which certifies that the credit earned at the College will be accepted as a part of the student's academic program. The transient letter must be received prior to the student registering for courses. Students may only register for courses listed on the letter of transiency. A student is not required to file transcripts of previously earned credits from other postsecondary institutions. Transient students are eligible to receive federal financial aid benefits.

#### *D. Returning Bishop State Student (Readmission)*

A student who has previously attended Bishop State (dual enrollment coursework not included) and is returning to the College after a break in continuous enrollment is considered a returning (readmit) student. Students who have attended the College within the past year do not need to reapply. Students who only attended the College as a dual enrollment student should apply as a first-time freshman if he or she plans to attend the College after high school graduation.

Required Admission Documentation:

- Bishop State application for admission
- One primary form of Identification (unexpired government issued photo ID)
- Official high school / GED transcript documenting graduation if not already submitted
- Official college transcripts from all previously attended institutions after last attending Bishop State\*

Readmission to Specialized Programs: Students seeking readmission to specialized programs, such as Nursing and Physical Therapist Assistant, should refer to the programs section of the catalog for that particular program.

\*Applicants who have completed an Associate Degree will be required to submit only the transcript from the institution granting the degree unless transfer credit is required from an institution other than the one the Associate Degree was awarded. Some programs may require all college transcripts be submitted regardless of the degree that was obtained.

#### *Accelerated High School Program*

Bishop State Community College offers the high school accelerated program for high school students who may desire to earn college credit while enrolled in high school. **Note: Credit towards high school graduation will not be awarded.**

Information must be obtained from the office of admissions. A student is eligible for early admission if the student meets all of the following criteria:

- The student has successfully completed the 10th grade
- The student provides certification from the local principal or his or her designee certifying that the student has a cumulative 3.0 grade point average. An unofficial transcript will satisfy this requirement.
- The student provides a certification letter from the local principal or his or her designee certifying that the student is recommended to be admitted under this policy.
- In the absence of an Alabama driver's license or state-issued ID card, a student may provide a certified copy of their birth certificate to establish U.S. citizenship and a printout of the student information profile sheet from iNow signed and dated by their high school principal to establish current residency and identification. The profile sheet must show the student's home address and include the student's photo.
- The student may enroll only in Postsecondary courses for which high school prerequisites have been completed (For example: a student may not take English Composition until all required high school English courses have been completed)
- All seniors must submit their ACT scores or take the ACCUPLACER Test.
- Exceptions may be granted for students documented as gifted and talented only in accordance with the standards included in the State Plan of Exceptional Children and Youth. Exceptions apply only to the first two requirements.

*G. Dual Enrollment/Dual Credit for High School Students:*

Bishop State Community College provides post-secondary instructional opportunities to eligible high school students through the State Board of Education Policy 801.03, Dual Enrollment/Dual Credit for High School Students. This policy allows eligible high school students to enroll in college classes concurrently with high school classes, and to receive both high school and college credit where appropriate. There must be on file at Bishop State Community College a formal written agreement between the student's local school board and Bishop State Community College before approval for Dual Enrollment/Dual Credit admission is granted.

1. To be eligible the student must meet the following requirements:

- Students must satisfy the requirements prescribed in Procedure 801.01: Admission: General, with the exception of proof of high school graduation or GED completion.
- **\*In the absence of an Alabama driver's license or state-issued ID card, a student may provide a certified copy of their birth certificate to establish U.S. citizenship and a printout of the student information profile sheet from iNow signed and dated by their high school principal to establish current residency and identification. The profile sheet must show the student's home address and include the student's photo. DELETE\***
- Students must be in grade 10, 11, or 12. An exception may be granted by the Chancellor for students documented as gifted and talented in accordance with Alabama Administrative Code §290-8-9.12.

- Students seeking enrollment in Dual Enrollment for Dual Credit coursework must have a minimum cumulative (unweighted) high school grade point average of 2.5 on a 4.0 scale for academic coursework.
- Students must have written approval of the appropriate principal or career and technical education program representative (if applicable) and counselor. Dual Enrollment for Dual Credit eligibility for students enrolled in private, home school/private tutor, parochial, or church/religious secondary educational entities must be documented in writing by an appropriate school official. Approval from secondary school officials indicates that the student has demonstrated both academic readiness and social maturity.
- The ACCS institution has the right to restrict a student's enrollment on the basis of academic readiness, social maturity, health and safety concerns, course availability, and/or local institutional policy.

## 2. Placement and Pre-Requisites:

- All dually enrolled students must take a state-approved college placement test, where minimum placement is required, specifically for college-level English, math or reading courses. Students in the 10th or 11th grade registering only for career and technical courses may take a state approved placement test but are not required to do so. Colleges must ensure that all students take a state-approved college placement test prior to registering for dual enrollment courses for the 12th grade year.
- Students must meet all applicable pre-requisites prior to enrolling in courses.
- Developmental courses (those numbered below 100) are not offered through dual enrollment.

## 3. Continuous Eligibility for Dual Enrollment for Dual Credit:

- Students who meet the criteria for initial admission for a Dual Enrollment for Dual Credit program as specified in Section 2 will maintain continuous eligibility so long as they earn a grade of C or better in all attempted college courses.
- Students who fail to meet this minimum grade requirement or who withdraw from a course will be suspended from the program for a minimum of one term. The one-term suspension may not be served during the summer. The student may not re-enroll until the suspension has been served. For re-entry, the student must reapply to the program and must meet the minimum grade point average requirements as identified in Section 1.

Students may enroll in occupational/technical courses/programs in accordance with guidelines of the Alabama Community College System.

All credit for coursework completed under these provisions is held in escrow until the student provides proof of high school graduation (final high school transcripts). Transcripts issued prior to a student's high school graduation will be labeled "conditional credit". Upon proof of high school graduation, this notation will be removed from the transcript.

Three semester credit hours at the postsecondary level shall equal one credit at the high school level in the same or related subject.

#### *H. Audit Student*

An audit student is an applicant who wishes to enroll for classes only on an audit basis. The applicant must comply with the college admissions requirements by submitting an application for admission, one primary form of identification, an official high school transcript verifying date of graduation or GED certificate, and official transcripts from all colleges attended. A student with an Associate Degree will need to submit only the transcript from the college awarding the degree. Audit students must abide by class attendance policy and all standard course requirements, excluding the completion of course examinations. The cost of auditing a course is the same as enrolling for credit. Course auditing must be approved by Dean of Instruction before enrolling.

#### *Complete Withdrawal from the College*

Upon entering Bishop State Community College, the student assumes the responsibility of completing the academic program in which he or she is registered. Students who wish to exit the College prior to the end of the current term must follow the process described below. It is the student's responsibility to initiate the Complete Withdrawal Process.

To withdraw from the College a student should navigate to the following link to access the eWithdrawal form: <https://www.bishop.edu/admissions/withdrawal-policies>. A representative from the Academic Advising Center will make a reasonable effort to contact the student within 3 business days of the withdrawal's submission to counsel the student. Students who wish to reverse their withdrawal after counseling will be allowed to do so by emailing the Office of the Registrar at [registrar@bishop.edu](mailto:registrar@bishop.edu) from their Bishop State email address requesting the reversal. The email should include the student's name, A number, date of birth, and a complete list of the classes which should include the name of the class and the course reference number (CRN). Requests to reverse a withdrawal must be submitted within 5 business days from the date of submission. Requests made after the last day to drop a class/withdraw from the College, will not be honored.

## **Course Updates for Summer 2022**

CHD 219 - Supervised Practical Experience

2 credits

Prerequisite(s): A grade of C or higher in CHD 100 and, CHD 201 and, CHD 202 and, CHD 203 and, CHD 204 and, CHD 205 and, CHD 206 and, CHD 209 and, CHD 210

This course provides hands-on, supervised experienced in an approved program for young children. Emphasis is placed on performance of daily duties which are assessed by the college instructor and the cooperating teacher. Upon completion, students will be able to demonstrate competency in a child care setting.

## **New Programs for Summer 2022**

Introduction to Process Technology (MN)

New Program, available Summer 2022

This short certificate consists of five courses providing an introduction to Process Technology. The Introduction to Process Technology Short Certificate additionally provides a continuing educational pathway to Bishop State's Associate in Applied Science (AAS) degree in Process Technology Operation.

The Process Technology Short Certificate prepares individuals to monitor and operate equipment used in the processing of raw material into marketable chemical/petrochemical and other processed related products. This includes instruction in materials handling, extraction, distillation, evaporation, drying, absorption, heat transfer, instrumentation and reaction processes. The program emphasizes safe and efficient work practices, basic occupational skills and employability skills.

### **Core Requirements**

INT 129 - Industrial Safety and Maintenance Techniques 3 credits

IST 137 - Industrial Process Equipment 5 credits

IST 167 - Industrial Measurements 5 credits

PCT 122 - Introduction to Process Technology 3 credits

PCT 115 - Instrumentation I 3 credits

PCT 220 - Process Technology II - Systems 4 credits

Total Core Requirement Coursework: 23 Credit Hours

Aviation Manufacturing Technology

New Program for Summer 2022

Technical Core

AMA 101 - Personal Success I, Industrial Safety and Intro to Aviation & Aviation Manufacturing 3 credits

AMA 110 - Precision Measurement and Quality Control 3 credits

AMA 111 - Aerostructure Assembly I 3 credits

AMA 212 - Personal Success II and Intro to Aviation Electrical Assembly 3 credits

AMA 112 - Aviation Electrical Measurement, Terminations, and Intro to Lean Manufacturing 3 credits

AMA 211 - Aerostructure Assembly II 3 credits

ELT 117 - AC/DC Machines 3 credits

INT 117 - Principles of Industrial Mechanics 3 credits

INT 129 - Industrial Safety and Maintenance Techniques 3 credits

IST 137 - Industrial Process Equipment 5 credits

IST 167 - Industrial Measurements 5 credits

ORI 105 - Orientation and Student Success 3 credits

Total Technical Core Coursework: 40 Credit Hours

General Education

English Composition

Must complete ENG101 or ENG131

ENG 101 - English Composition I 3 credits

or

ENG 131 - Applied Writing I 3 credits

Total: 3 Credit Hours

Mathematics

Must complete MTH100 or higher

MTH 100 - Intermediate College Algebra 3 credits

MTH 110 - Finite Mathematics 3 credits

MTH 112 - Precalculus Algebra 3 credits

MTH 113 - Precalculus Trigonometry 3 credits

MTH 115 - Precalculus Algebra & Trigonometry 4 credits

MTH 118 - Technical Mathematics 3 credits

MTH 120 - Calculus and Its Applications 3 credits

MTH 125 - Calculus I 4 credits

MTH 126 - Calculus II 4 credits

MTH 227 - Calculus III 4 credits

MTH 237 - Linear Algebra 3 credits

MTH 238 - Applied Differential Equations I 3 credits

Total: 3 Credit Hours

Total General Education Coursework: 6 Credit Hours

Total Credit Hours for Certificate Completion: 46 Credit Hours

## Steel/Aluminum Welding Technology

New Program for Summer 2022

### Core Requirements

ELT 117 - AC/DC Machines 3 credits

INT 117 - Principles of Industrial Mechanics 3 credits

INT 129 - Industrial Safety and Maintenance Techniques 3 credits

IST 137 - Industrial Process Equipment 5 credits

WDT 115 - Gtaw Carbon Pipe Theory 3 credits

WDT 116 - GTAW Stainless Pipe 3 credits

ORI 105 - Orientation and Student Success 3 credits

Total Core Requirement Coursework: 26 Credit Hours

### **Reactivated Programs**

Drafting and Design Technology, AAS (MN)

This program prepares individuals to generally apply technical skills to create working drawings and computer simulations for a variety of applications. Includes instruction in specification interpretation, dimensioning techniques, drafting calculations, material estimation, technical communications, computer applications, and interpersonal communications.

#### Technical Core

ADM 116 - Introduction to CATIA 3 credits

ADM 128 - Plastic Material Processes 3 credits

ADM 261 - Reverse Engineering 3 credits

CDT 221 - Structural Drafting for Technicians 3 credits

DDT 104 - Basic Computer Aided Drafting and Design 3 credits

DDT 124 - Technical Drawing I 3 credits

DDT 127 - Intermediate Computer Aided Drafting and Design 3 credits

DDT 131 - Basic Machine Drafting 3 credits

DDT 132 - Architectural Drafting 3 credits

DDT 212 - Intermediate Architectural Drafting 3 credits

DDT 214 - Pipe Drafting 3 credits

DDT 232 - CAD Customization 3 credits

DDT 233 - Advanced CAD 3 credits

DDT 244 - Advanced 3D Modeling 3 credits

Select ADM101 or DDT111

ADM 101 - Precision Measurement 3 credits

DDT 111 - Fundamentals of Drafting and Design Technology 3 credits

ORI 101 - The Wildcat Way 1 credits

Students who have completed less than 30 hours of coursework should take ORI101

Total Technical Core Coursework: 45 - 46 Credit Hours

General Education

English Composition

Must complete ENG101 or ENG131

ENG 101 - English Composition I 3 credits

or

ENG 131 - Applied Writing I 3 credits

Total: 3 Credit Hours

Humanities and Fine Arts

Choose one Humanities or Fine Arts course

Art or Music Appreciation preferred

May not take Speech

ART 100 - Art Appreciation 3 credits

DNC 101 - Dance Appreciation 3 credits

ENG 262 - English Literature II 3 credits

ENG 271 - World Literature I 3 credits

ENG 272 - World Literature II 3 credits

ENG 251 - American Literature I 3 credits

ENG 252 - American Literature II 3 credits

ENG 261 - English Literature I 3 credits

MUS 101 - Music Appreciation 3 credits

PHL 206 - Ethics and Society 3 credits

REL 151 - Survey of the Old Testament 3 credits

REL 152 - Survey of the New Testament 3 credits

THR 120 - Theatre Appreciation 3 credits

Total: 3 Credit Hours

## Natural Science

Must complete one 4 hour Natural Science course

BIO 101 - Introduction to Biology I 4 credits

BIO 102 - Introduction to Biology II 4 credits

BIO 103 - Principles of Biology I 4 credits

BIO 104 - Principles of Biology II 4 credits

CHM 104 - Introduction to Inorganic Chemistry 4 credits

CHM 105 - Introduction Organic Chemistry 4 credits

CHM 111 - College Chemistry I 4 credits

CHM 112 - College Chemistry II 4 credits

PHS 111 - Physical Science 4 credits

PHS 112 - Physical Science II 4 credits

PHY 201 - General Physics I - Trig Based 4 credits

PHY 202 - General Physics II - Trig Based 4 credits

PHY 213 - General Physics with Calculus I 4 credits

PHY 214 - General Physics with Calculus II 4 credits

Total: 4 Credit Hours

## Mathematics

Must complete one Math course

MTH 100 - Intermediate College Algebra 3 credits

MTH 116 - Mathematical Applications 3 credits

MTH 118 - Technical Mathematics 3 credits

MTH 110 - Finite Mathematics 3 credits  
MTH 112 - Precalculus Algebra 3 credits  
MTH 113 - Precalculus Trigonometry 3 credits  
MTH 115 - Precalculus Algebra & Trigonometry 4 credits  
MTH 120 - Calculus and Its Applications 3 credits  
MTH 125 - Calculus I 4 credits  
MTH 126 - Calculus II 4 credits  
MTH 227 - Calculus III 4 credits  
MTH 237 - Linear Algebra 3 credits  
MTH 238 - Applied Differential Equations I 3 credits  
Total: 3 Credit Hours

#### History, Social, and Behavioral Science

Choose one History, Social, or Behavioral Science course

ECO 231 - Principles of Macroeconomics 3 credits  
ECO 232 - Principles of Microeconomics 3 credits  
HIS 101 - History of Western Civilization I 3 credits  
HIS 102 - History of Western Civilization II 3 credits  
HIS 201 - United States History I 3 credits  
HIS 202 - United States History II 3 credits  
POL 200 - Introduction to Political Science 3 credits  
POL 211 - American National Government 3 credits  
PSY 200 - General Psychology 3 credits

PSY 210 - Human Growth and Development 3 credits

SOC 200 - Introduction to Sociology 3 credits

SOC 210 - Social Problems 3 credits

Total: 3 Credit Hours

Total General Education Coursework: 16 Credit Hours

Total Credit Hours for Program Completion: 61 - 62 Credit hours