



ADDITIONS

Degrees & Certificates

GRAPHIC DESIGN CERTIFICATE

Signal Peak Campus

Total Credits: 30

The Graphic Design Certificate provides individuals seeking to advance design skills for the development of personal interests, and for those already employed in this field to upgrade skills as well as providing the creative and technical skills required for employment in entry-level positions.

Recommended Proficiencies

RDG094 College Reading

Core Requirements (30)

ART101	Two-Dimensional Design (3)		
ART107	Drawing I (3)		
MSC120	Graphic Design and Adobe InDesign (3)		
MSC122	Introduction to Web Design (3)		
MSC123	Designing with Type (3)		
MSC125	Introduction to Illustrator (3)		
MSC130	Digital Photography and Photoshop (3)		
MSC220	Advanced Graphic Design (3)		
MSC230	Advanced Digital Photography & Adobe Photoshop (3)		
MSC205	Portfolio Preparation (3)		

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of one-third of required Certificate credits from CAC.

MANUFACTURING ENGINEERING TECHNOLOGY A.A.S.

District-Wide

Total Credits: 64-71

The Manufacturing Engineering Technology A.A.S. Degree program provides opportunities for students to gain knowledge, skills and understanding of the concepts and applications of electronics in manufacturing. This Degree has been developed in cooperation with the automated manufacturing industries. Students are prepared for employment in the electronics, service maintenance, and related manufacturing fields as entry-level technicians. For those presently employed in the industry it provides an opportunity to upgrade skills.

Recommended Proficiencies

Fundamental computer skills.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3)

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course, or an AGECE course.

For the following two categories: 1) Arts and Humanities and 2) Social and Behavioral Sciences, the required courses must represent two different departmental areas from each category. For example, students may not take a History course to fulfill their Arts and Humanities requirement if they are using another History course to complete their Social and Behavioral Sciences requirement.

Arts and Humanities (3)

ART207 Art History I (3)

MHL100 Music Appreciation (3)

MHL207 Survey of Jazz/Pop Music (3)

THE100 Theater Appreciation (3)

Or select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.



Social and Behavioral Sciences (3)

ECN201 Principles of Macroeconomics (3)

Or select a Social and Behavioral Science course, or an AGECE course.



Physical and Biological Sciences (8)

BIO100 Biology Concepts (4)  

Or select a Biological or Physical Science course.

Mathematics (3-4)

Select a college-level Mathematics course:

MAT121 Intermediate Algebra, Standard (4) or higher

Core Requirements (41-48)

Mechatronics Certificate (27)

ELC122 Direct Current and Alternating Current Circuit Analysis (3)

ELC220 Active Circuits (3)

ELT128 FPGA Fundamentals (3)

ELT223 Microcontroller Fundamentals (3)

MET125 Principles of Fabrication (3)

MET132 Fluid Power (Hydraulics-Pneumatics) (3)

MET221 Electro-Mechanical Technology (3)

MET232 Solid Modeling - Solidworks (3)

MET261 LabView 1 Programming (3)

Select one Specialization:

Specialization 1 (21)

Programmable Logic Controller Certificate

ELC221 Control Devices (3)

ELC128 Introduction to Programmable Logic Controllers (3)

ELC228 Advanced Programmable Logic Controllers (3)

MET226 Electro-Mechanical Systems (3)

MET240 DeviceNet (3)

MET245 Variable Frequency Drive (3)

MET250 Factory Talk (3)

OR

Specialization 2 (15)

LabView Programming Certificate

MET261 LabView 1 Programming (3)

MET262 LabView 2 Programming (3)

MET263 LabView 3 Programming (3)



MET264 LabView FPGA Programming (3)

MET265 LabView Overview (3)

OR

Specialization 3 (14)

Semiconductor Industry

CHM130 Fundamental Chemistry (4)  

ELC200 Radio Frequency RF/High Vacuum HV (3)

MET230 Semiconductor I - Seminar (3)

PHY111 College Physics (4)  

Other Requirements (4)

PAC or DAN Course (1)

Computer Competency (3):

AGB124 Microcomputers in Agriculture

CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course (Consult the CEG.)

Reading Competency: RDG094 College Reading 

Students must earn a grade of “C” or better in all required courses for this AAS degree.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64-71 credits.

MECHATRONICS CERTIFICATE

District-Wide

Total Credits: 27

The Mechatronics Certificate program provides opportunities for students to gain knowledge, skills and understanding of the concepts and applications in electronics, mechanics, fabrication and design.

Recommended Proficiencies

Skills in using hand tools and operating a personal computer prepare students for success in this Certificate program.

Core Requirements (27)

ELC122 Direct Current and Alternating Current Circuit Analysis (3)

ELC220 Active Circuits (3)

ELT128 FPGA Fundamentals (3)

ELT223 Microcontroller Fundamentals (3)

MET125 Principles of Fabrication (3)

MET132 Fluid Power (Hydraulics-Pneumatics) (3)

MET261 LabView 1 Programming (3)

MET221 Electro-Mechanical Technology (3)

MET232 Solids Modeling - Solidworks (3)

Other Requirements

Students must earn a grade of “C” or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.



PARAMEDICINE CERTIFICATE

Superstition Mountain Campus

Total Credits: 50.5

Students will be prepared to work as paramedics and have the knowledge to critically think and act to take care of patients. They will have the knowledge and skills required for emergency care, stabilization and immobilization of victims of illness and injury.

Recommended Proficiencies

Students must meet eligibility requirements established by the Arizona Department of Health Services, Bureau of EMS.

Prerequisites

(EMS100 or current CPR certification), EMS125 (ADHS EMT Certified for 1 year) and FSC129.

Core Requirements (50.5)

Core courses must be completed with a grade of "C" or above.

EMS190	Pediatric Advanced Life Support (1)
EMS191	Neonatal Resuscitation Program-NRP (1)
EMS240	Advanced Cardiac Life Support-ACLS (1)
EMS245	Pre-Hospital Trauma Management-PHTLS (1)
EMS272A	Advanced Emergency Medical Technology/ Paramedic, Module I (17.5)
EMS272B	Advanced Emergency Medical Technology/Paramedic, Module II (8.5)
EMS272C	Advanced Emergency Medical Technology/ Paramedic, Module III (8.5)
EMS272D	Advanced Emergency Medical Technology/ Paramedic Practicum I (6)
EMS272E	Advanced Emergency Medical Technology/Paramedic Practicum II (6)

Other Requirements

Core courses must be completed with a grade of "C" or above.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

PROGRAMMABLE LOGIC CONTROLLER CERTIFICATE

District-Wide

Total Credits: 21

The Programmable Logic Controllers (PLC) Certificate provides opportunities for students to gain knowledge, skills, and understanding of the concepts and applications in the field of PLCs. This certificate has been developed in cooperation with automation industries. Students are prepared for employment in the service maintenance and related manufacturing fields as entry-level technicians. For those presently employed in the industry it provides an opportunity to upgrade skills.

Recommended Proficiencies

A basic understanding of electronics prepare students for success in this Certificate program.

Core Requirements (21)

ELC221	Control Devices (3)
ELC128	Introduction to Programmable Logic Controllers (3)
ELC228	Advanced Programmable Logic Controllers (3)
MET240	DeviceNet (3)
MET245	Variable Frequency Drives (3)
MET250	Factory Talk (3)
MET226	Electro-Mechanical Systems (3)

Other Requirements

Students must earn a grade of "C" or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.



CORRECTIONS

FIRE SCIENCE TECHNOLOGY A.A.S.

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- Total Credits: 66
- Prerequisites
 - Correction to course credits:*
EMS125 Emergency Medical Technician (9)
- General Education Requirements (19-20)
- Core Requirements (38)
 - Add:*
FSC109 Fire Protection Systems (3)
 - Correction to course credits:*
FSC140 Firefighter I & II (11)
- Electives (6)
 - Add:*
FSC111 Emergency Driver Operator (2)