

**Engineering Technology – Industrial**

ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)

REQUIRED CREDITS: 60

DEGREE CODE: ETINDU-AAS

**DESCRIPTION**

This program provides students with classroom and laboratory experiences in electricity, mechanical power, pneumatics, hydraulics and ferrous and non-ferrous material. The Industrial Emphasis focuses on those skills used in industrial settings. Academic skills emphasizing related math, science and human relations are stressed to prepare students to meet the challenges common in the workplace.

**STUDENT LEARNING OUTCOMES**

- Ensure the level of knowledge and ability to select, test, set up, and maintain various electro-mechanical systems and machinery and perform basic system calculations.
- Construct, operate, and maintain various electrical motor controllers, mechanical power transmission systems, and high pressure fluid power systems.
- Demonstrate the ability to apply various troubleshooting techniques for the identification and correction of faults in electrical, mechanical, and fluid power systems.
- Demonstrate knowledge and skills in basic mathematical calculations, communication, and teamwork concepts.

**PLEASE NOTE** - The courses listed below may require a prerequisite or corequisite. Read course descriptions before registering for classes. All MATH and ENG courses numbered 01-99 must be completed before reaching 30 total college-level credits. No course under 100-level counts toward degree completion.

**GENERAL EDUCATION REQUIREMENTS (27 CREDITS)**

**MATHEMATICS (3 credits)**

Recommended: MATH 116 Technical Mathematics

**ENGLISH COMPOSITION (3-5 credits)**

See AAS policy p. 46 for courses

**COMMUNICATIONS (3 credits)**

Recommended: COM 115 Applied Communication

**HUMAN RELATIONS (3 credits)**

Recommended: HIST 106 European Civilization Since 1648

**NATURAL SCIENCE (8 credits)**

Required: EGG 131 and 131L

Recommended: MT 102B Fundamental of Electricity

**FINE ARTS/HUMANITIES/SOCIAL SCIENCE (3 credits)**

Recommended: MUS 231 Recording Techniques I

**U.S. AND NEVADA CONSTITUTIONS (4-6 credits)**

Recommended: PSC 101 Introduction to American Politics

**SPECIAL PROGRAM REQUIREMENTS (33 CREDITS)**

**CORE REQUIREMENTS (33 credits)**

ADT 100B	Introduction to Drafting Theory	3
AUTO 105B	Automotive Maintenance I	2
CADD 100	Introduction to Computer Aided Drafting	3
CONS 120B	Construction Plans and Specifications	3
MT 104B	Industrial Electricity	4
MT 106B	Mechanical Power Transmission	4
MT 108B	Fluid Power (Pneumatics, Hydraulics, Instrumentation)	4
MT 110B	Material Science I (Ferrous and Non-Ferrous)	4
MT 115B	Programmable Logic Controllers I	3
MT 116B	Programmable Logic Controllers II	3

**Choose one from the following (0-3 credits)**

IS 100B	Core Computing Competency	0
IS 101	Introduction to Information Systems	3

**FULL-TIME STUDENT DEGREE PLAN**

*Plan can be modified to fit the needs of part-time students by adding more semesters.*

**FIRST SEMESTER**

	<b>Credits</b>
MATH 116 Technical Mathematics	3
COM 115 Applied Communication	3
MT 102B Fundamentals of Electricity	4
ADT 100B Introduction to Drafting Theory	3
CONS 120B Construction Plans and Specifications	3
<b>TOTAL CREDITS</b> .....	<b>16</b>

**SECOND SEMESTER**

	<b>Credits</b>
Complete AAS English Composition p. 46	3-5
CADD 100 Introduction to Computer Aided Drafting	3
MT 104B Industrial Electricity	4
MT 108B Fluid Power (Pneumatics, Hydraulics, Instrumentation)	4
IS 100B or IS 101	0-3
<b>TOTAL CREDITS</b> .....	<b>14-19</b>

**THIRD SEMESTER**

	<b>Credits</b>
PSC 101 Introduction to American Politics	4
<b>TOTAL CREDITS</b> .....	<b>4</b>

**FOURTH SEMESTER**

	<b>Credits</b>
EGG 131 Technical Physics I	3
EGG 131L Technical Physics I – Lab	1
AUTO 105B Automotive Maintenance I	2
MT 106B Mechanical Power Transmission	4
MT 115B Programmable Logic Controller I	3
<b>TOTAL CREDITS</b> .....	<b>13</b>

**FIFTH SEMESTER**

	<b>Credits</b>
MUS 231 Recording Techniques I	3
HIST 106 European Civilization Since 1648	3
MT 110B Material Science I (Ferrous and Non-Ferrous)	4
MT 116B Programmable Logic Controllers II	3
<b>TOTAL CREDITS</b> .....	<b>13</b>

**DEGREE PLAN TOTAL CREDITS**..... **60-65**

- NOTE**
- Course numbers with the “B” suffix may be non-transferable for a NSHE baccalaureate degree.
  - Course numbers with the “H” suffix are designated Honors-level courses and can be used to fulfill equivalent general education requirements. For more information visit [www.csn.edu/honors](http://www.csn.edu/honors).
  - In no case, may one course be used to meet more than one requirement except for the Values and Diversity general education requirement (only AA, AS, and AB degrees) which may be used to fulfill the corresponding general education or emphasis requirement.
  - Students may elect to graduate using the degree requirements in effect at the time of matriculation, or when they declared or changed major or the current catalog. If a program is official after a student has matriculated, the student may choose the degree requirements of the new program. In no case may a student use a catalog which is more than six years old at the time of graduation.

