

CERTIFICATE OF ACHIEVEMENT

The Certificate of Achievement in Engineering Technology, Industrial Emphasis is an 18-month program that 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. Courses include Industrial Electricity, Mechanical Power Transmission and Programmable Logic Controllers.

STUDENT LEARNING OUTCOMES - Graduates of this program will have the opportunity to:

- Show the knowledge and demonstrate the ability to select, test, set up, and maintain various electromechanical systems and machinery and perform basic system calculations.
- Demonstrate the ability to apply various troubleshooting techniques for the identification and correction of faults in electrical, mechanical, and fluid power systems.
- Assemble, operate, and maintain various electrical motor controllers, mechanical power transmission systems, and high pressure fluid power systems.
- Show the ability and skills to prepare technical reports and communicate the results through effective oral communications.

GENERAL EDUCATION REQUIREMENTS (3 Credits):

	CR	SEMESTER
COMMUNICATIONS: COM 115, ENG 107	3	_____

SPECIAL PROGRAM REQUIREMENTS (29 Credits):

	CR	SEMESTER
CADD 100 Introduction to Computer Aided Drafting	3	_____
IS 100B Core Computing Competency or IS 101 Introduction to Information Systems	0-3	_____
MT 102B Fundamentals of Electricity	4	_____
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	_____

Computation included in MT 102B, 104B

Human Relations included in MT 115B, 116B

NOTE: Courses with a B suffix (example - XYZ 123B) may be non-transferable for a NSHE baccalaureate degree.

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32
Total Credits

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.

**Guided Pathway
Certificate of Achievement
Engineering Technology – Industrial Emphasis
Total Credits – 32 credits**

First Semester	Requirement	Credit Hours	Term
Communications	COM 115, ENG 107	3	
Fundamentals of Electricity	MT 102B	4	
Mechanical Power Transmission	MT 106B	4	
Programable Logic Controlers I	MT 115B	3	
	TOTAL	14	
Second Semester	Requirement	Credit Hours	Term
Industrial Electricity	MT 104B	4	
Fluid Power (Pneumatics, Hydraulics, Instrumentation)	MT 108B	4	
Programmable Logic Controlers II	MT 116B	3	
	TOTAL	11	
Third Semester	Requirement	Credit Hours	Term
Core Computer Competency *	IS 100B	0	
Material Science I (Ferrous and Non-Ferrous)	MT 110B	4	
Introduction to Computer Aided Drafting	CADD 100	3	
	TOTAL	7	
	CA TOTAL	32	

* **Note:** IS 100B is a certification test, if not certification test isn't passed student must take IS 101. The student can always bypass IS 100B and just take IS 101.

More detailed information can be found on the ET Web page at <http://www.csn.edu/et>