COLLEGE OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

ENGINEERING TECHNOLOGY: ELECTRICAL & AUTOMATION SYSTEMS OPTION

Bachelor of Science (BS)

This is a guide based on the 2025-2026 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use Degree Works to monitor their individual progress.

CURRICULUM CHECKLIST

93 hour major – No minor required

___ CH181 Basic Principles of Chemistry (5)
___ ET160 Basic Electric Circuits (3)
___ ET304 Introduction to PLCs (3)
___ IM300 Technical Communications (3)
___ IM301 Industrial Safety Supervision (3)
___ IM309 Science, Technology, & Society (3)
___ IM311 Statistical Process Control (3)
___ MA137 Precalculus (5)
___ MA140 Analytic Geometry & Calculus I (5)
___ MN120 Fundamentals of Engineering Design Processes (3)
___ MN220 Engineering Economic Analysis (3)
___ MN260 Technical Computer Programming Applications (3)
___ MN300 Computational Analysis in Engineering Technology (3)
___ MN356 Robotic Fundamentals (3)
___ MN383 Fluid Power (3)
___ MN412 Industrial Capstone Projects (3)
___ PH120 Introductory Physics I (5)
___ SW207 Understanding Cultural & Social Diversity (3)

Choose 3 hours:

___ IM317 Cooperative Industrial Internship (3)
___ IM410 Manufacturing Research in a Global Society (3)

Electrical & Automation Systems Option (28 hours):

___ ET110 Fundamentals of Electrical Engineering Technology (1)
___ ET164 AC Principles & Circuits (3)
___ ET245 Logic Circuits (3)
___ ET260 Electronic Circuits Design/Analysis I (3)
___ ET365 Industrial Electrical Power (3)
___ ET367 Motor Control and Drive Systems (3)
___ ET374 Industrial Electronics (3)
___ ET468 Industrial Control (3)
___ ET471 Topics in Electrical Engineering Technology (3)
___ TN255 Microcomputer Maintenance (3)

General Education Requirements – some requirements may be fulfilled by coursework in major program.

- Social and Behavioral Sciences – 6 hours
- Constitution Requirement – 3 hours
- Written Communication – 6 hours
- Oral Communication – 3 hours
- Natural Sciences – 7 hours (from two disciplines, one to include a lab)
- Mathematics – 3 hours
- Humanities & Fine Arts – 9 hours (from at least two disciplines)
- Additional requirements – 5 hours (to include UI100 for native students)
- Civics examination

SAMPLE FOUR-YEAR PLAN

	Fall Semester		Spring Semester	
	Course #	*Hrs*	*Course #*	*Hrs*
FIRST YEAR	UI100	1	ET160	3
	EN100	3	MA140	5
	CH181	5	PH120/021	5
	ET110	1	General Education	3
	MA137	5		
	Total	**15**	**Total**	**16**
SECOND YEAR	ET164	3	ET260*	3
	ET245	3	ET304	3
	MN120	3	IM300	3
	MN300	3	MN260	3
	General Education	3	MN383	3
	Total	**15**	**Total**	**15**
THIRD YEAR	ET374*	3	ET365*	3
	IM301	3	ET468*	3
	IM311	3	IM309	3
	MN220	3	General Education	3
	TN255	3	General Education	3
	Total	**15**	**Total**	**15**
FOURTH YEAR	ET367*	3	ET471	3
	MN356	3	MN412	3
	General Education	3	SW207	3
	General Education	3	IM317/IM410	3
	General Education	3	Elective	2
	Total	**15**	**Total**	**14**

**Many major courses are on a set rotation and thus dependent on when prerequisite courses are completed. The actual semester a course is taken may vary based on the rotation.*

Degree requirements for all students: a minimum of 120 credit hours, completion of the General Education program, and completion of 39 senior division hours (300-599). Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.

A minimum 2.0 GPA in the major and overall are required to graduate with a BS degree.

ABET Engineering Technology Accreditation Commission

Revised 3/3/2025

2025-2026 degree map