

INSTRUMENTATION ENGINEERING TECHNOLOGY

Bachelor of Technology 126 Credit Hours Fall or Spring Start

First Semester (15 Hours) | AAS Degree

	Program Requirements	Hours	$ \checkmark $	General Education Courses	Hours	✓
	ETD 1012 Safety Applications	2		ORIE 1011 College Strategies (AAS Degree Requirement)	1	
FULL	ETDE 1003 Introduction to Instrumentation Technology	3		CS 1013 Computer Literacy & Applications	3	
	ETDE 1283 AC/DC Circuits I Corequisite: MATH 1513	3		MATH 1513 Pre-Calculus [®]	3	
				COWBOY UP! New Student Orientation	0	

Second Semester (15 Hours) | AAS Degree

	Program Requirements	Hours	✓	General Education Courses	Hours	✓
	ETDE 1293 AC/DC Circuits II Prerequisites: ETDE 1283 and MATH 1513; Corequisite: MATH 1613	3		HIST 1483 US History to 1865 <u>OR</u> HIST 1493 US History since 1865	3	
FULL	ETDE 1343 Motors & Controls Prerequisite: ETDE 1283; Corequisite: ETDE 1293	3		MATH 1613 Trigonometry Prerequisite: MATH 1513	3	
	ETDE 2253 Hydraulics & Pneumatics Prerequisites: ETDE 1283 and MATH 1513	3				

Third Semester (15 Hours) | AAS Degree

	Program Requirements	Hours	 	General Education Courses	Hours	
	ETDE 1363 Electronic Devices & Standards Prerequisite: ETDE 1293	3		ENGL 1113 Freshman Composition I ^{★⊕} <u>OR</u> ENGL 1033 Technical Writing I [⊕]	3	
FULL	ETDE 2223 Electrical Power Distribution Prerequisite: ETDE 1293; Corequisite: ETDE 1363	3		POLS 1113 US Government	3	
	ETDG 1143 Introduction to Design/Drafting Corequisite: MATH 1513	3				

Fourth Semester (16 Hours) | AAS Degree

	Program Requirements	Hours	√	General Education Courses	Hours	✓
	ETDE 1373 Digital Systems & Microcontrollers Prerequisite: ETDE 1363	3		MATH 2714 Elementary Calculus Prerequisite: MATH 1613 or equivalent	4	
FULL	ETDE 2113 Introduction to PLCs Prerequisite: ETDE 1343	3		SPCH 1113 Intro to Speech Communications OR SPCH 2313 Small Group Communications	3	
	ETDE 2273 Electronic Control Devices Prerequisites: ETDE 1343 and ETDE 1363	3				

Fifth Semester (13 Hours) | AAS Degree

	Program Requirements	Hours	✓	General Education Courses	Hours	✓
=	ETDE 2133 Instrumentation Prerequisite: ETDE 2113	3		PHYS 1114 General Physics I Prerequisite: MATH 1613	4	
JU.	Approved Lower-Division Technical Elective Consult with advisor for an approved list of electives.	3		Approved Humanities Elective PHIL 1213 Ethics *	3	

FULL = Full Semester Class | 1st = First Half Class | 2nd = Second Half Class

Completion of AAS in Engineering Technologies - Instrumentation Technology Option Degree Requirements

BT in Instrumentation Engineering Technology Requirements continued on next page

Sixth Semester (13 Hours) | BT Degree

2024-2025 Program Plan of Study Revised 5.07.24 JKG

^{*} Recommended

 $[\]ensuremath{^{\bigoplus}}$ Corequisite strategies course available. See advisor for details.

	Program Requirements	Hours	✓	General Education Courses	Hours	✓
	ETDE 3143 PLC Applications Prerequisite: EDTE 2113	3		CHEM 1314 General Chemistry I Corequisite: MATH 1513	4	
FULL	ETDE 3223 Industrial Networks Prerequisite: ETDE 2273; Corequisite: ETDE 3143	3				
	ETDE 3313 Heat Transfer & Fluid Mechanics Prerequisites: ETDE 2253, MATH 2714 and PHYS 1114	3				

Seventh Semester (13 Hours) | BT Degree

	Program Requirements	Hours	✓	General Education Courses	Hours	✓
	ETD 2411 Employment Exploration	1		Approved Humanities Elective Consult with advisor for an approved list of electives.	3	
FULL	ETDE 3213 Project Management & Engineering Economics	3				
	ETDE 3233 Liquid & Gas Flow Measurement Prerequisites: ETDE 3313 and PHYS 1114	3				
	ETDE 3513 Programming for Instrumentation Prerequisite: ETDE 2133	3				

Eighth Semester (15 Hours) | BT Degree

	Program Requirements	Hours	✓	General Education Courses	Hours	✓
FULL	ETDE 4133 Process Measurement & Control Prerequisites: ETDE 3223, ETDE 3233, ETDE 3513 and MATH 2714	3		PSYC 1113 Introductory Psychology	3	
	ETDE 4313 Process Management Prerequisites: ETDE 3223 and MATH 2714	3				
	ETDE 4813 Instrumentation Capstone Prerequisites: ETDE 3213, ETDE 3223, ETDE 3513, departmental approval and a 2.5 GPA or higher	3				
	Approved Upper-Division Technical Elective Consult with advisor for an approved list of electives.	3				

Ninth Semester (12 Hours) | BT Degree

	Program Requirements	Hours	✓	General Education Courses	Hours	✓
FULL	ETDE 4112 Instrumentation Internship Prerequisites: ETD 2411 and a 2.5 GPA or higher	12				

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