

# PROGRAM PLANNING GUIDE

## MECHANICAL ENGINEERING TECHNOLOGY A40320A

Replaces Curriculum Schedule with Revision Date: FA2024

Date Revised: FA2025

### CURRICULUM BY SEMESTER

					Hours Per Week		Credits	Semesters Offered
Course No.	Course Title	Pre-Requisites	Co-Requisites	Class	Lab			
Fall Semester 1								
DFT	154	Intro to Solid Modeling	None	None	2	3	3	FA, SP
MEC	130	Mechanisms	None	None	2	2	3	FA, SP
ACA	115	Success & Study Skills	None	None	0	2	1	FA, SP, SU
EGR	125	Appl Software for Tech	None	None	1	2	2	FA, SP
		Math Elective	See Below				3	
Spring Semester 1								
DFT	151	CAD I	None	None	2	3	3	FA, SP
DFT	254	Interm. Solid Modeling & Rendering	DFT 154	None	2	3	3	SP, SU
ENG	111	Writing and Inquiry	ENG 025 (If required)	ENG 045	3	0	3	FA, SP, SU
MEC	161	Manufacturing Processes I	None	None	3	0	3	SP, FA
		Physics Elective	See Below				4	
Summer Semester 1								
PSY	150	General Psychology	ENG 002 or ENG 025	None	3	0	3	FA, SP, SU
COM	231	Public Speaking	Take ENG-111 Minimum Grade C	ENG 111	3	0	3	FA, SP, SU
Fall Semester 2								
DFT	152	CAD II	DFT 151	None	2	3	3	FA, SP
EGR	251	Statics	MAT-121, MAT-171, or MAT-271	None	2	2	3	FA, SP
ELN	260	Prog Logic Controllers	None	None	3	3	4	FA, SP
HYD	180	Fluid Power in Automation	MAT 121, MAT 171, or MAT 271	HYD 191A	2	3	3	FA
HYD	191A	Selected Topics in Fluid Power Lab	None	HYD 180	0	2	1	FA
MEC	180	Engineering Materials	None	None	2	3	3	FA, SU
Spring Semester 2								
EGR	285	Design Project	EGR 251 or ELN 260 or HYD-180	None	0	4	2	SP, SU
ISC	112	Industrial Safety	None	None	2	0	2	SP
		Humanities Elective	See Below				3	
		Major Elective	See Below				3	
		Major Elective	See Below				2	

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Summer Semester 2								
EGR	252	Strength of Materials	EGR 251	None	2	2	3	SP, SU

**Graduation Requirement Credit Hours: 66**

### MAJOR ELECTIVES

					Hours Per Week		Credits	Semesters Offered
Course No.		Course Title	Pre-Requisites	Co-Requisites	Class	Lab		
Major Electives		Credit Hours Needed: 5						
ARC	225	Architectural BIM I	ARC-114 and ARC-114A or DFT-151	ARC 225A	1	3	2	FA, SP, SU
ARC	225A	Architectural BIM I Lab	ARC-114 and ARC-114A or DFT-151	ARC 225	0	3	1	FA, SP, SU
ATR	115	Introduction to Mechatronics	ELC-131 or ELN-260 or MEC-130	None	3	3	4	SP
ATR	219	Automation Troubleshooting	ELC-131, ELN-260, HYD-180, HYD-191A, and MEC-130	None	1	3	2	SP
CIV	240	Project Management	None	None	2	3	3	FA, SP
DFT	121	Intro to GD&T	None	None	1	2	2	SU
DFT	153	CAD III	None	None	2	3	3	SP
ELC	131	Circuit Analysis I	None	None	3	3	4	FA, SP
PCI	173	Programmable Systems	None	None	3	3	4	SP
TDP	110	Introduction to 3-D Printing	None	None	2	3	3	SU
WBL	111DJ	Work-Based Learning I	14 program credits hours	None	0	10	1	FA, SP, SU
WBL	112DJ	Work-Based Learning I	14 program credits hours	None	0	20	2	FA, SP, SU
WBL	113DJ	Work-Based Learning I	14 program credits hours	None	0	30	3	FA, SP
WBL	121DJ	Work-Based Learning II	14 program credits hours	None	0	10	1	FA, SP, SU
WLD	110	Cutting Processes	None	None	1	3	2	FA, SP
WLD	115	SMAW (Stick) Plate	None	WLD 110	2	9	5	FA, SP

### HUMANITIES ELECTIVES

					Hours Per Week		Credits	Semesters Offered
Course No.	Course Title			Class	Lab			
Major Electives		Credit Hours Needed: 3						
HUM	110	Technology and Society	ENG 002 or ENG 025 (If required)	None	3	0	3	FA, SP, SU
HUM	115	Critical Thinking	ENG-002, ENG-025,or ENG-111	None	3	0	3	FA, SP, SU
PHI	240	Introduction to Ethics	ENG 111, Minimum Grade C	None	3	0	3	FA, SP, SU

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MATH ELECTIVES								
					Hours Per Week		Credits	Semesters Offered
Course No.	Course Title				Class	Lab		
Major Electives		Credit Hours Needed: 3						
MAT	121	Algebra/Trigonometry I	MAT 003, MAT 021, MAT 035, or MAT 045A (If required)	None	2	2	3	FA, SP, SU
MAT	171	Precalculus Algebra (University Transfer)	ENG 002 or ENG 025 (If required) MAT 003, MAT 035, MAT 071, or MAT 045P (If required)	None	3	2	4	FA, SP, SU

PHYSICS ELECTIVES								
					Hours Per Week		Credits	Semesters Offered
Course No.		Course Title			Class	Lab		
Major Electives		Credit Hours Needed:	3					
PHY	131	Physics-Mechanics	MAT 121, Minimum Grade C or MAT 171	None	3	2	4	SP
PHY	151	College Physics I (University Transfer)	MAT 171, Minimum Grade C or MAT 271	None	3	2	4	FA, SP, SU