MECHANICAL ENGINEERING TECHNOLOGY
A40320B - MECHATRONICS

Replaces Curriculum Schedule with Revision Date: FA2024   **Date Revised: FA2025**

						Hours Per Week			Semesters
Course No.		**Course Title**	**Pre-Requisites**		**Co-Requisites**	**Class**	**Lab**	**Credits**	**Offered**
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
ELC	131	Circuit Analysis I	None		None	3	3	4	FA, SP
MEC	161	Manufacturing Processes I	None		None	3	0	3	SP, FA
ATR	115	Introduction to Mechatronics	ELC-131 or ELN-260 or MEC-130		None	3	3	4	SP
ENG	111	Writing and Inquiry	ENG 025 (If required)		ENG 045	3	0	3	FA, SP, SU
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									
ISC	112	Industrial Safety	None		None	2	0	2	SP
		Physics Elective	See Below					4	
		Humanities Elective	See Below					3	
		Major Elective	See Below					3	

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

Graduation Requirement Credit Hours: 67

MAJOR ELECTIVES

Course No.		Course Title	Pre-Requisites	Co-Requisites	Hours Per Week		Credits	Semesters Offered
					Class	Lab		
Major Electives		Credit Hours Needed: 3						
ATR	214	Advanced PLCs	ELN 260 OR ELC 128	None	3	3	4	FA
ATR	215	Sensors and Transducers	None	None	2	3	3	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	254	Interm. Solid Modeling & Rendering	DFT 154	None	2	3	3	SP, SU
ELN	231	Industrial Controls	ELC 131 or ELC 112	None	2	3	3	SU
ELN	235	Data Communication Systems	ELC 131 or ELC 112	None	3	3	4	SP
PCI	173	Programmable Systems	None	None	3	3	4	SP
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

HUMANITIES ELECTIVES

Course No.		Course Title			Hours Per Week		Credits	Semesters Offered
					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

MATH ELECTIVES

Course No.		Course Title			Hours Per Week Class	Lab	Credits	Semesters Offered
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

Course No.		Course Title			Hours Per Week Class	Lab	Credits	Semesters Offered
Major Electives		Credit Hours Needed: 4						
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