

**PROGRAM PLANNING GUIDE**

**MECHANICAL ENGINEERING TECHNOLOGY**

**A40320B - Mechatronics**

Replaces Curriculum Schedule with Revision Date: SU2021

Date Revised: SU2022

**CURRICULUM BY SEMESTER**

Course No.			Course Title			Hours Per Week		
						Class	Lab	Credits
Fall Semester								
DFT	151		CAD I	2	3			3
EGR	115		Intro to Technology	2	3			3
EGR	115A		Intro to Technology Lab	0	3			1
ELC	131		Circuit Analysis I	3	3			4
ELC	131A		Circuit Analysis I Lab	0	3			1
			Math Elective	-	-			3

Spring Semester								
DFT	152		CAD II	2	3			3
DFT	154		Intro to Solid Modeling	2	3			3
MEC	130		Mechanisms	2	2			3
MEC	161		Manufacturing Processes I	3	0			3
			Physics Elective	-	-			4

Summer Semester								
ENG	111		Writing and Inquiry	3	0			3
PSY	150		General Psychology	3	0			3

Fall Semester								
EGR	251		Statics	2	2			3
ELN	260		Prog Logic Controllers	3	3			4
HYD	180		Fluid Power in Automation	2	3			3
HYD	191A		Selected Topics in Fluid Power Lab	0	2			1
MEC	180		Engineering Materials	2	3			3
			English/Communication Elective	-	-			3

Spring Semester								
ATR	115		Introduction to Mechatronics	3	3			4
EGR	252		Strength of Materials	2	2			3
ISC	121*		Environmental Health & Safety	3	0			3
			Humanities Elective	-	-			3
			Major Elective	-	-			3

**Graduation Requirement Credit Hours:** 70

**ENGLISH/COMMUNICATION ELECTIVE**

Course No.			Course Title			Hours Per Week		
						Class	Lab	Credits
			Credit Hours Needed:			3		
ENG	112		Writing and Research (University Transfer)	3	0			3
ENG	114		Professional Research & Reporting	3	0			3

Registrar's Office Approved 6/13/22

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<b>HUMANITIES ELECTIVE</b>					
<b>Course No.</b>			<b>Hours Per Week</b>		
			<b>Class</b>	<b>Lab</b>	<b>Credits</b>
Credit Hours Needed:			3		
HUM	110	Technology and Society (University Transfer)	3	0	3
HUM	115	Critical Thinking (University Transfer)	3	0	3
PHI	240	Introduction to Ethics (University Transfer)	3	0	3

<b>MATH ELECTIVE</b>					
<b>Course No.</b>			<b>Hours Per Week</b>		
			<b>Class</b>	<b>Lab</b>	<b>Credits</b>
Credit Hours Needed:			3		
MAT	121	Algebra/Trigonometry I	2	2	3
MAT	171	Precalculus Algebra (University Transfer)	3	2	4

<b>PHYSICS ELECTIVE</b>					
<b>Course No.</b>			<b>Hours Per Week</b>		
			<b>Class</b>	<b>Lab</b>	<b>Credits</b>
Credit Hours Needed:			4		
PHY	131	Physics-Mechanics	3	2	4
PHY	151	College Physics I (University Transfer)	3	2	4

<b>MAJOR ELECTIVE</b>					
<b>Course No.</b>			<b>Hours Per Week</b>		
			<b>Class</b>	<b>Lab</b>	<b>Credits</b>
Credit Hours Needed:			3		
ATR	214	Advanced PLCs	3	3	4
ATR	215	Sensors and Transducers	2	3	3
DFT	254	Interm. Solid Modeling & Rendering	2	3	3
ELN	231	Industrial Controls	2	3	3
ELN	232	Introduction to Microprocessors	3	3	4
ELN	235	Data Communication Systems	3	3	4
WBL	111	Work-Based Learning I	0	10	1
WBL	112	Work-Based Learning I	0	20	2
WBL	113	Work-Based Learning I	0	30	3
WBL	120	Career Readiness, Explor., & Employ.	2	3	3
WBL	121	Work-Based Learning II	0	10	1
WBL	122	Work-Based Learning II	0	20	2
WBL	123	Work-Based Learning II	0	30	3

\* 10 hour OSHA Certification