

# Electromechanical Engineering Technology Checksheet

The Academic Plan of Study is a guide. Always confer with your Academic Advisor for your semester course plans

Common First Year (CFY)	Fall	Term(s)	Course #	Course Title	Hrs	Prerequisites
			ENGR 13xx	Foundational ENGR Course (ENGR 1300, 1301, 1302, or 1303)*	2-3	
			ENGR 13xx	Foundational ENGR Course (ENGR 1300, 1301, 1302, or 1303)*	2-3	
			MATH #1	Precalculus* or Calculus I*	3	ML3 or MATH1100 or MATH1101
			XXXX 1501	Global Theme (Social Science)	3	
			XXXX 1511	Local Theme (Social Science)	3	
	<b>Total: 14-15</b>					
	Spring	Term(s)	Course #	Course Title	Hrs	Prerequisites
			ENGR 13xx	Foundational ENGR Course (ENGR 1300, 1301, 1302, or 1303)*	2-3	
			ENGR 13xx	Foundational ENGR Course (ENGR 1300, 1301, 1302, or 1303)*	2-3	
		MATH #2	Calculus I* or Calculus II	3	MATH 1103*	
		PHYS 2101	Physics I	3	MATH 1241	
		PHYS 2101L	Physics I Lab	1	PHYS 2101	
		WRDS 1103	Writing & Inquiry	3		
<b>Total: 15-16</b>						

Second Year	Fall	Term(s)	Course #	Course Title	Hrs	Prerequisites
			ETEM 2101	Circuit Fundamentals	3	MATH 1103*
			ETEM 2161	Foundations of Mechanics	3	PHYS 2101 and ENGR 1301*
			ETEM 2171	Algorithms and Programming	3	ENGR 1302*
			ETEM 2181	Circuits and Machines in Action	2	ETEM 2101 and ETEM 2161 and ENGR 1300*
			ETME 2111	CAD Fundamentals	3	ENGR 1303*
	<b>Total: 14</b>					
	Spring	Term(s)	Course #	Course Title	Hrs	Prerequisites
			ETEM 2271	Digital Fundamentals	3	
			ETEM 2281	Doing and Making	3	ETEM 2171 and ETEM 2181 and ETME 2111
		ETEM 2291	Practical System Design	3		
		MATH #3	Calculus II	3	MATH 1241*	
		Natural Science		3		
<b>Total: 15</b>						

Third Year	Fall	Term(s)	Course #	Course Title	Hrs	Prerequisites
			ETEM 3101	Principles of Control	3	ETEM 2101 and ETEM 2161 and MATH 1241
			ETEM 3131	Electromechanical Devices	3	
			ETEM 3171	Digital Devices	3	ETEM 2171 and ETEM 2271
			ETEM 3181	Exploring Devices	1	ETEM 3131 and ETEM 3171 and ETEM 2181
			ETEM 4141	Digital Manufacturing Methods	3	
		CTCM 2530	Critical Thinking and Communication	3	WRDS 1103 or WRDS 1104	
	<b>Total: 16</b>					
	Spring	Term(s)	Course #	Course Title	Hrs	Prerequisites
			ETEM 3191	From Concept to Product	3	
		ETEM 3231	Power, Machines, and Energy	3	ETEM 2101	
		ETEM 3261	Applied Control Systems	3	ETEM 3101	
		ETEM 4161	Elements of Automation	3		
		XXXX 1502	Glocal Theme (Arts / Humanities)	3		
<b>Total: 15</b>						

Fourth Year	Fall	Term(s)	Course #	Course Title	Hrs	Prerequisites
			ETEM 3281	More Doing and Making	3	ETEM 3181, ETEM 3261, and ETME 2111
			ETEM 4100	Electromechanical Capstone Design I	2	ETEM 3191
			ETEM 4131	Intelligent Industrial Systems	3	ETEM 3231 and ETEM 4161
			ETGR 3295	Multidisc. Professional Development	1	Junior or Senior standing
			Restricted Elective		3	
			Restricted Elective		3	
	<b>Total: 15</b>					
	Spring	Term(s)	Course #	Course Title	Hrs	Prerequisites
			ETEM 4200	Electromechanical Capstone Design II	2	ETEM 4100
		ETEM 4261	Robotics and Cyber-Physical Systems	3	ETEM 3181 and ETEM 3261	
		ETEM 4600	Technology Seminar	1	Senior Standing	
		Restricted Elective		3		
		Restricted Elective		3		
		XXXX 1575	American Democracy	3		
<b>Total: 15</b>						

\* = grade of C or better is required for degree progression  
 Courses in *italics* can be taken as a pre or co-requisite  
 Courses with a **bold** are critical to take in the listed semester

