

Study Plan for B.S.E., INTERDISCIPLINARY ENGINEERING Major--Mechatronics Emphasis

Student Name: _____

(2019-20 Catalog) (MTH 201 Placement - 4 Year Program)

Student ID#: _____

Year	1st Semester: Fall _____				2nd Semester: Winter _____				Semester: S/S _____						
	Credits	Grade	Semester Completed	Credits	Grade	Semester Completed	Credits	Grade	Semester Completed						
1st Year	* MTH 201	Calculus I	4	_____	_____	* MTH 202	Calculus II	4	_____	_____	GE-LS	_____	3	_____	_____
	* WRT 150	Writ Strategies	4	_____	_____	* PHY 230	Physics I	5	_____	_____					
	* EGR 106	Intro to Egr Design I	3	_____	_____	* EGR 107	Intro to Egr Design II	3	_____	_____					
	* CHM 115	Chemistry I	4	_____	_____	* STA 220	Statistical Modeling	2	_____	_____					
						* EGR 220	Measure/Data Analysis	1	_____	_____					
2nd Year	3rd Semester: Fall _____				4th Semester: Winter _____				Semester: S/S _____						
	Credits	Grade	Semester Completed	Credits	Grade	Semester Completed	Credits	Grade	Semester Completed						
	* MTH 203	Calculus III	4	_____	_____	* MTH 302	Lin Alg & DEQ	4	_____	_____	EGR 290	Engrg Co-op I	3	_____	_____
	+ * PHY 234/1	Engrg Physics	4/5	_____	_____	* IE Track	EGR 309 or 223	3/4	_____	_____	* IE Track	EGR 312 or 226	3/4	_____	_____
	* EGR 214	Circuit Analysis I	4	_____	_____	* EGR 250	Materials Science	4	_____	_____	(Sensor track takes foundation course EGR 226)				
* EGR 209	Mech & Mach	4	_____	_____	* IE Track	EGR 226 or 224	3/4	_____	_____						
* EGR 289	Engrg Co-op Prep	1	_____	_____	(Mechanical track takes foundation course EGR 226)										
3rd Year	5th Semester: Fall _____				Semester: Winter _____				6th Semester: S/S _____						
	Credits	Grade	Semester Completed	Credits	Grade	Semester Completed	Credits	Grade	Semester Completed						
	EGR 314	Circuit Analysis II	4	_____	_____	EGR 390	Engrg Co-op II	3	_____	_____	EGR 445	Robotics Systems	4	_____	_____
	IE Track	EGR 346 or 326	4	_____	_____	EGR 312	Dynamics (Sensor Track ONLY)	3	_____	_____	IE Track	EGR 409 or 309	4	_____	_____
	EGR 315	Electronic Circuits I	4	_____	_____						EGR 455	Automatic Control	4	_____	_____
@ GE	P & L PHI 102 - Ethics	3	_____	_____						# GE-GP	_____	3	_____	_____	
4th Year	Semester: Fall _____				7th Semester: Winter _____				8th Semester: S/S _____						
	Credits	Grade	Semester Completed	Credits	Grade	Semester Completed	Credits	Grade	Semester Completed						
	EGR 490	Engrg Co-op III	3	_____	_____	EGR 485	Sr Project I	1	_____	_____	EGR 486	Sr Project II	2	_____	_____
	EGR 352	Dynamics and Kinematics (Mechanical Track ONLY)	3	_____	_____	IE Track	EGR 450 or 436	4	_____	_____	IE Track Elective	_____	4	_____	_____
					% ECO 210 or 211	Micro or Macroeconor	3	_____	_____	GE-HP	_____	3	_____	_____	
					• GE-SBS/US	_____	3	_____	_____	GE-Issue	_____	3	_____	_____	
										GE - Issue	_____	3	_____	_____	

PCEC Student Services: (616)331-6025

- * Engineering Foundation course
- + Students may enroll in PHY 231 instead of PHY 234
- Consider taking a course that doubles as SBS and US (See Gen Ed guide for selections)
- # Consider taking a course that doubles as GP and Issue (See Gen Ed guide for selections)
- @ An ethics course is required in the engineering program (PHI 102 or another ethics course in General Education).
- % ECO 210 or 211 is required in the engineering curriculum. Also fulfills one SBS GenEd requirement.

Mechanical Track:

EGR 226 4th semester winter
 EGR 309 4th semester winter
 EGR 312 Spring/Summer Co-op
 EGR 346 5th semester fall
 EGR 409 6th semester spring/summer
 EGR 352 Fall co-op
 EGR 450 7th semester winter

Mechanical Track Electives:

EGR 224 Intro to Digital Systems (4 credits)
 EGR 436 Embedded Systems Interface (4 credits)
 EGR 424 Design of Microcontroller Applications (4 credits)
 EGR 350 Vibrations (4 credits)

Sensor-Controls Track:

EGR 224 4th semester winter
 EGR 223 4th semester winter
 EGR 226 Spring/Summer Co-op
 EGR 326 5th semester fall
 EGR 312 Winter Co-op
 EGR 309 6th semester spring/summer
 EGR 436 7th semester winter

Sensor-Controls Track Electives:

EGR 409 Machine Design II (4 credits)
 EGR 450 Manufacturing Controls (4 credits)
 EGR 352 Dynamics and Kinematics of Machinery (4 credits)
 EGR 424 Design of Microcontroller Applications (4 credits)

Secondary Admissions Criteria:

- A GPA of 2.7 or above in the Engineering Foundation courses
- Completion of each course in the Engineering Foundation with a grade of C (2.0) or above, with no more than one repeat
- Completion of preparation for placement in the cooperative engineering education, EGR 289

Recommendation:

It is strongly encouraged that students do not begin or break a curriculum thread by taking courses at other institutions; e.g., take the MTH 201 equivalent elsewhere, return to GV and continue in the math thread with MTH 202.