

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

(2018-19 Catalog) (MTH 201 Placement - 5 Year Program)

Student Name: _____

Student ID#: _____

1st Year	1st Semester: Fall_____			Credits	Grade	Semester Completed	2nd Semester: Winter _____			Credits	Grade	Semester Completed	Semester: S/S _____			Credits	Grade	Semester Completed
	* MTH	201	Calculus I	4	_____	_____	* MTH	202	Calculus II	4	_____	_____	_____	_____	_____	_____	_____	_____
	* WRT	150	Writ Strategies	4	_____	_____	* CHM	115	Chemistry I	4	_____	_____	_____	_____	_____	_____	_____	_____
	* EGR	106	Intro to Egr Design II	3	_____	_____	* EGR	107	Intro to Egr Design II	3	_____	_____	_____	_____	_____	_____	_____	_____
	GE	HST	_____	3	_____	_____	GE	Arts	_____	3	_____	_____						
2nd Year	3rd Semester: Fall_____			Credits	Grade	Semester Completed	4th Semester: Winter _____			Credits	Grade	Semester Completed	Semester: S/S _____			Credits	Grade	Semester Completed
	* MTH	203	Calculus III	4	_____	_____	* MTH	302	Lin Alg & DEQ	4	_____	_____	_____	_____	_____	_____	_____	_____
	* STA	220	Engrg Statistics	2	_____	_____	* PHY	230	Physics I	5	_____	_____	_____	_____	_____	_____	_____	_____
	* EGR	220	Engrg Stats Lab	1	_____	_____	@ GE	P & L	PHI 102 - Ethics	3	_____	_____	_____	_____	_____	_____	_____	_____
	% ECO	210 or 211	Micro or Macroeconomics	3	_____	_____												
3rd Year	3rd Semester: Fall_____			Credits	Grade	Semester Completed	4th Semester: Winter _____			Credits	Grade	Semester Completed	Semester: S/S _____			Credits	Grade	Semester Completed
	* PHY	234	Engrg Physics	4	_____	_____	* IE	Track	EGR 309 or 223	3/4	_____	_____	EGR	290	Engrg Co-op I	3	_____	_____
	* EGR	214	Circuit Analysis I	4	_____	_____	* EGR	250	Materials Science	4	_____	_____	* IE	Track	EGR 312 or 226	3/4	_____	_____
	* EGR	209	Mech & Mach	4	_____	_____	* IE	Track	EGR 226 or 224	3/4	_____	_____	(Sensor track takes foundation course EGR 226)					
	* EGR	289	Engrg Co-op Prep	1	_____	_____	(Mechanical track takes foundation course EGR 226)											
4th Year	5th Semester: Fall_____			Credits	Grade	Semester Completed	Semester: Winter _____			Credits	Grade	Semester Completed	6th Semester: S/S _____			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	3	_____	_____	IE	Track	EGR 409 or 309	4	_____	_____
	EGR	315	Electronic Circuits I	4	_____	_____			Track ONLY)				EGR	455	Automatic Control	4	_____	_____
													GE	Issue	_____	3/4	_____	_____
5th Year	Semester: Fall_____			Credits	Grade	Semester Completed	7th Semester: Winter _____			Credits	Grade	Semester Completed	8th Semester: S/S _____			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		3	_____	_____	IE	Track	EGR 450 or 436	4	_____	_____	IE	Track	Elective	_____	4	_____
			Dynamics and Kinematics (Mechanical Track ONLY)				GE	Issue	_____	3	_____	_____						
							GE	LS	_____	3/4	_____	_____						
							# GE	GP	_____	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 250 4th semester winter
EGR 309 4th semester winter
EGR 314 5th semester fall
EGR 346 5th semester fall
EGR 450 7th semester winter
EGR 352 Fall co-op
EGR 409 6th semester spring/summer

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 250 4th semester winter
EGR 223 4th semester winter
EGR 314 5th semester fall
EGR 326 5th semester fall
EGR 224 4th semester winter
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: