

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

Student Name: _____

(2018-19 Catalog) (MTH 201 Placement - 4 Year Program)

Student ID#: _____

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