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

Student Name:

(2018-19 Catalog) (MTH 123 Placement -		Placement - 5 Year Program	)				Student ID#:			-
1st Year	1st Semester: Fall      MTH    123      WRT    150      WRT    150      WRT    E      GE    LS      GE    HP      !    EGR      100    Intro to Eng	ry 3 gies 4 3	Semester Completed	* MTH 20 * CHM 1 * EGR 10	r: Winter 01 Calculus I 15 Chemistry I 06 Intro to Egr Desig rts	4 4 n II 3	Semester e Completed 	Semester: S/S 5	Grade	Semester Completed
2nd Year	3rd Sensetser: Fall    * MTH  202  Calculus II    * STA  220  Statistical M    * EGR  220  Measure/Da    * EGR  107  Intro to Egr    % ECO  210 or 211  Micro or M	Iodeling  2    a Analysis  1    Design II  3	Semester Completed 	* MTH 20 * PHY 22 @ GE P	e: Winter 03 Calculus III 30 Physics I & L PHI 102 - Ethics BS/US SOC 105	4 5 3	Semester e Completed 	Semester: S/S	Grade 	Semester Completed 
3rd Year	5th Semester: Fall      * * PHY    234/1    Engrg Phys      * EGR    214    Circuit Ana      * EGR    209    Mech & Mi      * EGR    289    Engrg Co-C	lysis I 4 ach 4		* MTH 30 * IE T * EGR 2: * IE T	"Winter      02    Lin Alg & DEQ      rack    EGR 309 or 223      50    Materials Science      rack    EGR 226 or 224      ck takes foundation course E	3/4 4 3/4	Semester e Completed 	Semester: S/S EGR 290 Engrg Co-op I 3 * IE Track EGR 312 or 226 3/4 (Sensor track takes foundation course EGR 226)	4	Semester Completed
4th Year	7th Semester: Fall EGR 314 Circuit Ana IE Track EGR 346 o EGR 315 Electronic (	326 4	Semester Completed		inter 90 Engrg Co-op II 12 Dynamics (Senso Track ONLY)		Semester e Completed 	8th Semester: S/S  8th    EGR  445  Robotics Systems  4    IE  Track  EGR 409 or 309  4    EGR  455  Automatic Control  4    GE  Issue 3		Semester Completed
5th Year	Semester: Fall EGR 490 Engrg Co-c EGR 352 Dynamics a (Mechanica ONLY)	nd Kinematics 3	·	EGR 44 IE Tr	<b>:: Winter</b> 85 Sr Project I aack EGR 450 or 436 sue P	1 4 3	Semester e Completed	10th Semester: S/S  geometry    EGR  486  Sr Project II  2    IE Track Elective   4		Semester Completed

### 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. %
- Not required, strongly recommended for success

## Mechanical Track:

Mechanical	Track:	Sensor-Controls Track:			
EGR 226	6th semester winter	EGR 224	6th semester winter		
EGR 309	6th semester winter	EGR 223	6th semester winter		
EGR 312	Spring/Summer Co-op	EGR 226	Spring/Summer Co-op		
EGR 346	7th semester fall	EGR 326	7th semester fall		
EGR 409	8th semester spring/summer	EGR 312	Winter Co-op		
EGR 352	Fall co-op	EGR 309	8th semester spring/sur		
EGR 450	9th semester winter	EGR 436	9th 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)

#### 8th semester spring/summer 9th 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.