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

Student Name: _____

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

Student ID#: _____

						Credits	Grade	Semester Completed
1st Year	**1st Semester: Fall____**							
	*	MTH	201	Calculus I		4		
	*	WRT	150	Writ Strategies		4		
	*	EGR	106	Intro to Egr Design I		3		
		GE	HP	_____		3		
	2nd Semester: Winter ____							
	*	MTH	202	Calculus II		4		
	*	CHM	115	Chemistry I		4		
	*	EGR	107	Intro to Egr Design II		3		
		GE	Arts	_____		3		
	Semester: S/S ____							
	_____							
	_____							
2nd Year	**3rd Semester: Fall____**							
	*	MTH	203	Calculus III		4		
	*	STA	220	Statistical Modeling		2		
	*	EGR	220	Measure/Data Analysis		1		
	•	GE	SBS/US	_____		3		
	%	ECO	210 or 211	Micro or Macroeconomics		3		
	4th Semester: Winter ____							
	*	MTH	302	Lin Alg & DEQ		4		
	*	PHY	230	Physics I		5		
	@	GE	P & L	PHI 102 - Ethics		3		
	Semester: S/S ____							
	_____							
	_____							
3rd Year	**5th Semester: Fall____**							
	+ *	PHY	234/1	Engrg Physics		4/5		
	*	EGR	214	Circuit Analysis I		4		
	*	EGR	209	Mech & Mach		4		
	*	EGR	289	Engrg Co-op Prep		1		
	6th Semester: Winter ____							
	*	IE	Track	EGR 309 or 223		3/4		
	*	EGR	250	Materials Science		4		
	*	IE	Track	EGR 226 or 224		3/4		
	(Mechanical track takes foundation course EGR 226)							
	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)							
4th Year	**7th Semester: Fall____**							
		EGR	314	Circuit Analysis II		4		
		IE	Track	EGR 346 or 326		4		
		EGR	315	Electronic Circuits I		4		
	Semester: Winter ____							
		EGR	390	Engrg Co-op II		3		
		EGR	312	Dynamics (Sensor Track ONLY)		3		
	8th Semester: S/S ____							
		EGR	445	Robotics Systems		4		
		IE	Track	EGR 409 or 309		4		
		EGR	455	Automatic Control		4		
		GE	Issue	_____		3		
5th Year	**Semester: Fall____**							
		EGR	490	Engrg Co-op III		3		
		EGR	352	Dynamics and Kinematics (Mechanical Track ONLY)		3		
	9th Semester: Winter ____							
		EGR	485	Sr Project I		1		
		IE	Track	EGR 450 or 436		4		
		GE	Issue	_____		3		
		GE	LS	_____		3		
	#	GE	GP	_____		3		
	10th Semester: S/S ____							
		EGR	486	Sr Project II		2		
		IE Track Elective		_____		4		

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	6th semester winter
EGR 309	6th semester winter
EGR 312	Spring/Summer Co-op
EGR 346	7th semester fall
EGR 409	8th semester spring/summer
EGR 352	Fall co-op
EGR 450	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)

Sensor-Controls Track:

EGR 224	6th semester winter
EGR 223	6th semester winter
EGR 226	Spring/Summer Co-op
EGR 326	7th semester fall
EGR 312	Winter Co-op
EGR 309	8th semester spring/summer
EGR 436	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.