Study Plan for B.S.E., *INTERDISCIPLINARY ENGINEERING* & Renewable Energy emphasis

Student Name: _____

(2018-19 Catalog) ***(MTH 201 Placement - 4 Year Program)*** **Minor:** _____ **Student ID#:** *G* _____

					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		
	*	CHM	115	Chemistry I	4		
	2nd Semester: Winter ____						
	*	MTH	202	Calculus II	4		
	*	PHY	230	Physics I	5		
	*	EGR	107	Intro to Egr Design II	3		
	*	STA	220	Statistical Modeling	2		
	*	EGR	220	Measure/Data Analysis	1		
	Semester: S/S ____						
2nd Year	**3rd Semester: Fall____**						
	*	MTH	203	Calculus III	4		
+	*	PHY	234/1	Physics II	4/5		
	*	EGR	226	MicroCtrl Pgm Appl	4		
	*	EGR	209	Mech & Mach	4		
	*	EGR	289	Engrg Co-op Prep	1		
	4th Semester: Winter ____						
	*	MTH	302	Lin Alg & DEQ	4		
	*	EGR		309 or 214 Mach Dsgn or Circuits	4		
	*	EGR		250 or 257 Materials	4		
	~	EGR		224 or 312 Intro Dig Sys or Dynamics	3		
	Semester: S/S ____						
		EGR	290	Engrg Co-op I	3		
	*	EGR	223	Probability & Signals (Solar Track ONLY!)	3		
3rd Year	**5th Semester: Fall____**						
	&	EGR		360, 314 or IE Elective	4		
	$	EGR	346	Mechatronic Sys	4		
		IE		Elec _____	3/4		
	Semester: Winter ____						
		EGR	390	Engrg Co-op II (SWS)	3		
	^	GEO	360	Earth Resources	3		
	6th Semester: S/S ____						
	&	EGR		362 or IE Elective	4		
	~	EGR		323 or 365 Signals or Fluids	3/4		
	@	PHI	102	Ethics	3		
		GE		Arts _____	3		
	•	GE		SBS/US (SOC 105)	3		
4th Year	**Semester: Fall____**						
		EGR	490	Engrg Co-op III	3		
		EGR	463	Alternative Energy	3		
	7th Semester: Winter ____						
		EGR	485	Sr Project I	1		
	^	EGR	406	Renewable Energy	3		
		EGR	413	Matls Energy Storage	3		
		IE		Elec _____	3/4		
	%	ECO	210/211	Micro/Macroecon.	3		
	8th Semester: S/S ____						
		EGR	486	Sr Project II	2		
		IE		Elec. _____	3/4		
	^	BIO	105	Environmental Science	3		
	#	GE		GP _____	3		
		GE		HP _____	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 Historical Perspectives (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.
& IE required course Energy (must take EGR 360 or EGR 362)
^ Emphasis required general education course. Check course offering ASAP for planning purposes.
$ IE required course Systems and Control (must take EGR 326, EGR 345 or EGR 346)
~ IE Prerequiste course for upper-level electives (EGR 224 is for Solar Track ONLY!)

Electives	Credits	Title	Semester		Prerequisites (in addition to admission to upper division)	Energy Focus
EGR 314	4	Circuit Analysis II	Fall		Only if not taken for required course, no double dipping	Solar
EGR 315	4	Electronic Circuits I	Fall			Solar
EGR 326	4	Embedded System Design	Fall			Solar
EGR 345	4	Dynamic Sys Model & Control	Fall		Only if not taken for required course, no double dipping	
EGR 346	4	Mechatronic Sys Dyn & Control	Fall			
EGR 352	4	Kinematics and Dynamics	Fall		EGR 312	Windmill, Alternative Cars
EGR 405	3	Materials Failure Analysis	Summer		EGR 250	Windmill, Alternative Cars
EGR 430	4	Electromechanics	Winter		EGR 330	All
EGR 450	4	Manufacturing Control Systems	Winter		EGR 345 or 346	Windmill
EGR 455	4	Automatic Control	Summer		EGR 323	All
EGR 465	4	Computational Fluid Dynamics	Winter		EGR 365	Windmill

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 per Foundations course**

- 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