Study Plan for B.S.E., *INTERDISCIPLINARY ENGINEERING* & Renewable Energy emphasis **Student Name:** _____

(2019-20 Catalog) ***(MTH 122 Placement - 5 Year Program)*** **Minor:** _____ **Student ID#:** *G*

		Credits	Grade	Semester Completed
1st Year	**1st Semester: Fall____**			
	MTH 122 College Algebra	3		
	MTH 123 Trigonometry	3		
*	WRT 150 Writ Strategies	4		
!	EGR 100 Intro to Engrg	1		
	GE - Arts _____	3		
	2nd Semester: Winter ____			
*	MTH 201 Calculus I	4		
*	CHM 115 Chemistry I	4		
*	EGR 106 Intro to Egr Design I	3		
^	BIO 105 Environmental Sci.	3		
	Semester: S/S ____			
	_____	__		
	_____	__		
	_____	__		
2nd Year	**3rd Semester: Fall____**			
*	MTH 202 Calculus II	4		
*	EGR 107 Intro to Egr Design II	3		
@	GE P & L (PHI 102 - Ethics)	3		
*	STA 220 Statistical Modeling	2		
*	EGR 220 Measure/Data Analysis	1		
	4th Semester: Winter ____			
*	MTH 203 Calculus III	4		
*	PHY 230 Physics I	5		
%	ECO 210/211 Economics	3		
*	EGR 226 MicroCtrl Pgm Appl	4		
	Semester: S/S ____			
	_____	__		
	_____	__		
	_____	__		
3rd Year	**5th Semester: Fall____**			
+ *	PHY 234/1 Physics II	4/5		
*	EGR 214 Circuit Analysis I	4		
*	EGR 209 Mech & Mach	4		
*	EGR 289 Engrg Co-op Prep	1		
	6th Semester: Winter ____			
*	MTH 302 Differential Equations	4		
*	EGR 309 or 223 Mach Dsgn or Prob/Sig	3/4		
*	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		
4th Year	**7th 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		
	8th Semester: S/S ____			
&	EGR 362 or IE Elective	4		
~	EGR 323 or 365 Signals or Fluids	3/4		
#	GE GP _____	3		
	GE HP _____	3		
•	GE SBS/US	3		
5th Year	**Semester: Fall____**			
	EGR 490 Engrg Co-op III	3		
	EGR 463 Alternative Energy	3		
	9th Semester: Winter ____			
	EGR 485 Sr Project I	1		
^	EGR 406 Renewable Energy	3		
	EGR 413 Matls Energy Storage	3		
	IE Elec. _____	3/4		
^	GEO 360 Earth Resources	3		
	10th Semester: S/S ____			
	EGR 486 Sr Project II	2		
	IE Elec. _____	3/4		

* 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)

! Not required, but highly recommended for success.

~ IE Prerequiste course for upper-level electives (EGR 224 is for Solar Track ONLY!)

Electives	Credits	Title	Semester	Course Prerequisites	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		
EGR 346	4	Mechatronic Sys Dyn & Control	Fall	Only if not taken for required course, no double dipping	
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
EGR 435	3	Math Modeling of Phys Sys	Winter	MTH 302	All

Secondary Admission Criteria:

- 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 eudcation course, EGR 289

Recommendation:

It is strongly encouraged that students do not beging 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

PCEC Student Services
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