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

(2018-19 Catalog) ***(MTH 122 Placement - 5 Year Program)*** **Minor:** _____ **Student ID#:** G

		1st Semester: Fall____		Credits	Grade	Semester Completed
1st Year		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 ____		Credits	Grade	Semester Completed
	*	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 ____	Credits	Grade	Semester Completed
_____	__		
_____	__		
_____	__		

		3rd Semester: Fall____		Credits	Grade	Semester Completed
2nd Year	*	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 ____		Credits	Grade	Semester Completed
	*	MTH 203	Calculus III	4		
	*	PHY 230	Physics I	5		
	%	ECO 210/211	Economics	3		
	*	EGR 226	MicroCtrl Pgm Appl	4		

Semester: S/S ____	Credits	Grade	Semester Completed
_____	__		
_____	__		
_____	__		

			5th Semester: Fall____		Credits	Grade	Semester Completed
3rd Year	+	*	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 ____		Credits	Grade	Semester Completed
	*	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 ____		Credits	Grade	Semester Completed
EGR	290 Engrg Co-op I	3		

		7th Semester: Fall____		Credits	Grade	Semester Completed
4th Year	&	EGR	360, 314 or IE Elective	4		
	$	EGR 346	Mechatronic Sys	4		
		IE Elec	_____	3/4		

Semester: Winter ____		Credits	Grade	Semester Completed
EGR 390	Engrg Co-op II (sws)	3		

	8th Semester: S/S ____		Credits	Grade	Semester Completed
&	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		

		Semester: Fall____		Credits	Grade	Semester Completed
5th Year		EGR 490	Engrg Co-op III	3		
		EGR 463	Alternative Energy	3		

		9th Semester: Winter ____		Credits	Grade	Semester Completed
		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 ____		Credits	Grade	Semester Completed
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

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 cours
- Completion of preparation for placement in the cooperative engineering eudcation course, EGR 28

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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