

Study Plan for B.S.E., **INTERDISCIPLINARY ENGINEERING** & Renewable Energy emphasis (Solar/All Track)

Student Name: _____

(2019-20 Catalog) (MTH 122 Placement - 5 Year Program)

Minor: _____

Student ID#: **G**

Year	Semester	Course	Credits	Grade	Semester Completed	Semester	Course	Credits	Grade	Semester Completed	Semester	Grade	Semester Completed	
1st Year	1st Semester: Fall	MTH 122 College Algebra	3			2nd Semester: Winter	MTH 123 Trigonometry	3			Semester: S/S			
		* WRT 150 Writ Strategies	4				* CHM 115 Chemistry I	4						
		! EGR 100 Intro to Engrg	1				% ECO 210/211 Economics	3						
		GE - Arts	3				^ BIO 105 Environmental Sci.	3						
		GE - HP	3											
2nd Year	3rd Semester: Fall	* MTH 201 Calculus I	4			4th Semester: Winter	* MTH 202 Calculus II	4			Semester: S/S			
		* EGR 106 Intro to Egr Design I	3				* PHY 230 Physics I	5						
		* GE SBS/US	3				* 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								
3rd Year	5th Semester: Fall	* MTH 203 Calculus III	4			6th Semester: Winter	* MTH 302 Lin Alg & DEQ	4			Semester: S/S			
		+ * PHY 234/1 Physics II	4/5				* EGR 214 Circuit Analysis I	4				EGR 290 Engrg Co-op I	3	
		~ EGR 224 Intro Dig Sys Design	3				* EGR 257 Elec. Materials	4				* EGR 223 Probability/Signals	3	
		* EGR 209 Mech & Mach	4				* EGR 226 MicroCtrl Pgm Appl	4						
		* EGR 289 Engrg Co-op Prep	1											
4th Year	7th Semester: Fall	# EGR 314, 360 or 362	4			Semester: Winter	EGR 390 Engrg Co-op II (sws)	3			8th Semester: S/S			
		# EGR 326, 345 or 346	4							~ EGR 330 or IE Elec.		3/4		
		& IE Elec	3/4							~ EGR 323 or IE Elec.		3/4		
									GE GP	3				
5th Year	Semester: Fall	EGR 490 Engrg Co-op III	3			9th Semester: Winter	EGR 485 Sr Project I	1			10th Semester: S/S			
		EGR 463 Alternative Energy	3				^ EGR 406 Renewable Energy	3				EGR 486 Sr Project II	2	
							EGR 413 Matls Energy Storage	3				& IE Elec. (EGR 455)	3/4	
							& IE Elec (EGR 430)	3/4						
					^ GEO 360 Earth Resources	3								

* 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)

@ 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.

Select one for required IE coursework (EGR 314 and EGR 326 recommended)

& A total of four electives is required. Please see a faculty advisor ASAP to select electives.

^ Emphasis required general education course. Check availability ASAP for planning purposes.

! Not required, but highly recommended for success.

~ IE Prerequisite course for selected upper-level electives

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 430	4	Electromechanics	Winter	EGR 330	All
EGR 455	4	Automatic Control	Summer	EGR 323	All
EGR 435	3	Math Model 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 education course, 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