

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

Student Name: \_\_\_\_\_

(2019-20 Catalog) (MTH 124 Placement - 5 Year Program)

Minor: \_\_\_\_\_

Student ID#: **G** \_\_\_\_\_

Year	Semester	Credits	Grade	Semester Completed	Semester	Credits	Grade	Semester Completed	Semester	Credits	Grade	Semester Completed
1st Year	<b>1st Semester: Fall</b>				<b>2nd Semester: Winter</b>				<b>Semester: S/S</b>			
	MTH 124 Functions & Models	5	_____	_____	* MTH 201 Calculus I	4	_____	_____	_____	_____	_____	_____
	* WRT 150 Writ Strategies	4	_____	_____	* CHM 115 Chemistry I	4	_____	_____	_____	_____	_____	_____
	! EGR 100 Intro to Engrg	1	_____	_____	* EGR 106 Intro to Egr Design I	3	_____	_____	_____	_____	_____	_____
	! EGR 180 Intro Egr Prob Solv	3	_____	_____	GE - HP	3	_____	_____	_____	_____	_____	_____
^ BIO 105 Environmental Sci	3	_____	_____									
2nd Year	<b>3rd Semester: Fall</b>				<b>4th Semester: Winter</b>				<b>Semester: S/S</b>			
	* MTH 202 Calculus II	4	_____	_____	* MTH 203 Calculus III	4	_____	_____	_____	_____	_____	_____
	* EGR 107 Intro to Egr Design II	3	_____	_____	~ EGR 224 Intro Dig Sys Design	3	_____	_____	_____	_____	_____	_____
	* STA 220 Statistical Modeling	2	_____	_____	* PHY 230 Physics I	5	_____	_____	_____	_____	_____	_____
	* EGR 220 Measure/Data Analysis	1	_____	_____	* GE SBS/US	3	_____	_____	_____	_____	_____	_____
@ GE - P & L (PHI 102 Ethics)	3	_____	_____									
3rd Year	<b>5th Semester: Fall</b>				<b>6th Semester: Winter</b>				<b>Semester: S/S</b>			
	+ * PHY 234/1 Physics II	4/5	_____	_____	* MTH 302 Lin Alg & DEQ	4	_____	_____	EGR 290 Engrg Co-op I	3	_____	_____
	* EGR 226 MicroCtrl Pgm Appl	4	_____	_____	* EGR 223 Probability/Signals	3	_____	_____	_____	_____	_____	_____
	* EGR 209 Mech & Mach	4	_____	_____	* EGR 257 Elec. Materials	4	_____	_____	_____	_____	_____	_____
	* EGR 289 Engrg Co-op Prep	1	_____	_____	* EGR 214 Circuit Analysis I	4	_____	_____	_____	_____	_____	_____
4th Year	<b>7th Semester: Fall</b>				<b>Semester: Winter</b>				<b>8th Semester: S/S</b>			
	# EGR 314, 360 or 362	4	_____	_____	EGR 390 Engrg Co-op II (sws)	3	_____	_____	~ EGR 330 or IE Elec.	3/4	_____	_____
	# EGR 326, 345 or 346	4	_____	_____					~ EGR 323 or IE Elec.	3/4	_____	_____
	& IE Elec	3/4	_____	_____					GE GP	3	_____	_____
	GE Arts	3	_____	_____								
5th Year	<b>Semester: Fall</b>				<b>9th Semester: Winter</b>				<b>10th Semester: S/S</b>			
	EGR 490 Engrg Co-op III	3	_____	_____	EGR 485 Sr Project I	1	_____	_____	EGR 486 Sr Project II	2	_____	_____
	EGR 463 Alternative Energy	3	_____	_____	^ EGR 406 Renewable Energy	3	_____	_____	& IE Elec. (EGR 455)	3/4	_____	_____
				EGR 413 Mats Energy Storage	3	_____	_____	% ECO 210/211 Micro/Macroeconomics	3	_____	_____	
				& 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 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 equivalent elsewhere, return to GV and continue in the math thread with MTH 202.