

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

(Windmill/Alternative Cars Track)

Student Name: _____

(2019-20 Catalog) (MTH 201 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	1st Semester: Fall					2nd Semester: Winter				Semester: S/S _____			
	* MTH 201	Calculus I	4	_____		* MTH 202	Calculus II	4	_____				
	* WRT 150	Writ Strategies	4	_____		* CHM 115	Chemistry I	4	_____				
	* EGR 106	Intro to Egr Design I	3	_____		* EGR 107	Intro to Egr Design II	3	_____				
	GE - HP	_____	3	_____		GE - Arts	_____	3	_____				
2nd Year	3rd Semester: Fall					4th Semester: Winter				Semester: S/S _____			
	* MTH 203	Calculus III	4	_____		* MTH 302	Lin Alg & DEQ	4	_____				
	* STA 220	Statistical Modeling	2	_____		* PHY 230	Physics I	5	_____				
	* EGR 220	Measure/Data Analysis	1	_____		* EGR 226	MicroCtrl Pgm Appl	4	_____				
	^ BIO 105	Environmental Sci.	3	_____									
% ECO 210/211	Micro/Macroecon.	3	_____										
3rd Year	5th Semester: Fall					6th Semester: Winter				Semester: S/S _____			
	+ * PHY 234/1	Physics II	4/5	_____		* EGR 309	Machine Design I	4	_____				
	* EGR 214	Circuit Analysis I	4	_____		* EGR 250	Materials	4	_____				
	* EGR 209	Mech & Mach	4	_____		~ EGR 312	Dynamics	3	_____				
	* EGR 289	Engrg Co-op Prep	1	_____		• GE SBS/US (SOC 105)		3	_____				
4th Year	7th Semester: Fall					Semester: Winter				Semester: S/S _____			
	& EGR 360	or IE Elective	4	_____		EGR 390	Engrg Co-op II (sws)	3	_____				
	§ EGR 345	or 346 Dyn Sys/Mechatr	4	_____		# IE Elec (EGR 450)		4	_____				
	# IE Elec (EGR 352)		4	_____									
5th Year	Semester: Fall					9th Semester: Winter				Semester: S/S _____			
	EGR 490	Engrg Co-op III	3	_____		EGR 485	Sr Project I	1	_____				
	EGR 463	Alternative Energy	3	_____		^ EGR 406	Renewable Energy	3	_____				
				EGR 413	Matls Energy Storage	3	_____	# IE Elec (EGR 465)	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.
- & IE required course Energy (must take EGR 360 or EGR 362)
- ^ Emphasis required general education course. Please check semester availability ASAP!
- § IE required course Systems and Control (must take EGR 345 or EGR 346)
- ~ IE Prerequisite course for upper-level electives
- # A total of four electives is required. Please see a faculty advisor ASAP to select electives.

Electives	Credits	Title	Semester	Course Prerequisites	Energy Focus
EGR 352	4	Kinematics and Dynamics	Fall	EGR 312	Windmill, Alternative Cars
EGR 405	3	Materials Failure Analysis	Summer	EGR 250	Cars
EGR 450	4	Manufacturing Control Systems	Winter	EGR 345 or 346	Windmill
EGR 465	4	Computational Fluid Dynamics	Winter	EGR 365	Windmill
EGR 435	3	Math Modeling 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.