

**Study Plan for B.S.E., INTERDISCIPLINARY ENGINEERING & Renewable Energy emphasis**  
(2019-20 Catalog) (MTH 201 Placement with Honors Alliance & Conflict - 5 year program)

Student Name: \_\_\_\_\_ 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 201 Calculus I	4	_____	_____	2nd Semester: Winter _____	* MTH 202 Calculus II	4	_____	_____	Semester: S/S _____	_____	_____				
		* CHM 115 Chemistry I	4	_____	_____		* EGR 106 Intro to Egr Design I	3	_____	_____		_____	_____				
		HNR 260 _____	3	_____	_____		HNR 261 _____	3	_____	_____		_____	_____				
		HNR 201 Live, Learn, Lead	3	_____	_____		HNR 262 _____	3	_____	_____		_____	_____				
2nd Year	3rd Semester: Fall _____	* MTH 203 Calculus III	4	_____	_____	4th Semester: Winter _____	* MTH 302 Lin Alg & DEQ	4	_____	_____	Semester: S/S _____	_____	_____				
		* STA 220 Statistical Modeling	2	_____	_____		* PHY 231 Physics II	5	_____	_____		_____	_____				
		* EGR 220 Measure/Data Analysis	1	_____	_____		* EGR 226 MicroCtrl Pgm Appl	4	_____	_____		_____	_____				
		* EGR 107 Intro to Egr Design II	3	_____	_____		^ HNR LS (BIO 105)	3	_____	_____		_____	_____				
		* PHY 230 Physics I	5	_____	_____												
3rd Year	5th Semester: Fall _____	* EGR 214 Circuit Analysis I	4	_____	_____	6th Semester: Winter _____	* EGR 309 or 223 Mach Dsgn or Prob/Signal	3/4	_____	_____	Semester: S/S _____	EGR 290	Engrg Co-op I	3	_____	_____	
		* EGR 209 Mech & Mach	4	_____	_____		* EGR 250 or 257 Materials	4	_____	_____		_____	_____				
		* EGR 289 Engrg Co-op Prep	1	_____	_____		~ EGR 224 or 312 Dig Sys or Dynamics	3	_____	_____		_____	_____				
		% ECO 210/211 Micro/Macroecon.	3	_____	_____												
4th Year	7th Semester: Fall _____	& EGR 360, 314 or IE Elective	4	_____	_____	Semester: Winter _____	EGR 390	Engrg Co-op II (sws)	3	_____	_____	8th Semester: S/S _____	& EGR 362 or IE Elective	4	_____	_____	
		§ EGR 346 Mechatronic Sys	4	_____	_____									~ EGR 323 or 365 Signals or Fluids	3/4	_____	_____
		IE Elec _____	3/4	_____	_____									# HNR Jr. Seminar	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 486 Sr Project II	2	_____	_____		
		EGR 463 Alternative Energy	3	_____	_____		^ EGR 406 Renewable Energy	3	_____	_____		_____	_____	IE Elec. _____	3/4	_____	_____
							^ EGR 413 Matls Energy Storage	3	_____	_____							
							IE Elec.	3/4	_____	_____							
							^ GEO 360 Earth Resources	3	_____	_____							

	Electives	Credits	Title	Semester	Course Prerequisites	Energy Focus
*	EGR 314	4	Circuit Analysis II	Fall		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 Phy 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.