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

(2018-19 Catalog) ***(MTH 201 Placement with Honors Alliance & Conflict - 5 year program)***

1st Year

1st Semester: Fall____			Credits	Grade	Semester Completed
*	MTH 201	Calculus I	4		
*	CHM 115	Chemistry I	4		
	HNR 260	_____	3		
	HNR 201	Live, Learn, Lead	3		

2nd Semester: Winter ____			Credits	Grade	Semester Completed
*	MTH 202	Calculus II	4		
*	EGR 106	Intro to Egr Design I	3		
	HNR 261	_____	3		
	HNR 262	_____	3		

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

2nd Year

3rd Semester: Fall____			Credits	Grade	Semester Completed
*	MTH 203	Calculus III	4		
*	STA 220	Statistical Modeling	2		
*	EGR 220	Measure/Data Analysis	1		
*	EGR 107	Intro to Egr Design II	3		
*	PHY 230	Physics I	5		

4th Semester: Winter ____			Credits	Grade	Semester Completed	
*	MTH 302	Lin Alg & DEQ	4			
*	PHY 231	Physics II	5			+
*	EGR 226	MicroCtrl Pgm Appl	4			
^	HNR LS	(BIO 105)	3			

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

3rd Year

5th Semester: Fall____			Credits	Grade	Semester Completed
*	EGR 214	Circuit Analysis I	4		
*	EGR 209	Mech & Mach	4		
*	EGR 289	Engrg Co-op Prep	1		
%	ECO	210/211 Micro/Macroecon.	3		

6th Semester: Winter ____			Credits	Grade	Semester Completed
*	EGR	309 or 223 Mach Dsgn or Prob/Signa	3/4		
*	EGR	250 or 257 Materials	4		
~	EGR	224 or 312 Dig Sys or Dynamics	3		

Semester: S/S ____			Credits	Grade	Semester Completed
EGR	290	Engrg Co-op I	3		

4th Year

7th Semester: Fall____			Credits	Grade	Semester Completed
&	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		
#	HNR Jr. Seminar	_____	3		
@	HNR US	_____	3		

5th Year

Semester: Fall____			Credits	Grade	Semester Completed
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
#	The Jr. Seminar fulfills one Issue and one SWS requirement. HNR 312 will also fulfill US Diversity. Junior Seminars can be taken when students have >= 45 credits. Online seminars offered each semester.
%	ECO 210 or 211 is required in the engineering curriculum. Also fulfills one SBS GenEd requirement.
@	HNR US Diversity requirement can be met with a Jr. Seminar (HNR 312).
!	Completion of EGR 485 and 486 will fulfill the HNR 499 Senior Project requirement.
&	IE required course Energy (must take EGR 360 or EGR 362)
^	Emphasis required
$	IE required course Systems and Control (must take EGR 326, EGR 345 or EGR 346)
~	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		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 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.