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

(2018-19 Catalog) ***(MTH 124 Placement - 5 Year Program)*** **Minor:** _____ **Student ID#:** G

		Credits	Grade	Semester Completed
1st Year	**1st Semester: Fall____**			
	MTH 124 Functions & Models	5	_____	_____
*	WRT 150 Writ Strategies	4	_____	_____
!	EGR 100 Intro to Engrg	1	_____	_____
!	EGR 180 Intro Egr Prob Solv	3	_____	_____
^	BIO 105 Environmental Sci	3	_____	_____
	2nd Semester: Winter ____			
*	MTH 201 Calculus I	4	_____	_____
*	CHM 115 Chemistry I	4	_____	_____
*	EGR 106 Intro to Egr Design I	3	_____	_____
#	GE - HP _____	3	_____	_____
	Semester: S/S ____			
	_____	__	_____	_____
	_____	__	_____	_____
	_____	__	_____	_____
2nd Year	**3rd Semester: Fall____**			
*	MTH 202 Calculus II	4	_____	_____
*	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	_____	_____
	4th Semester: Winter ____			
*	MTH 203 Calculus III	4	_____	_____
*	PHY 230 Physics I	5	_____	_____
%	ECO 210/211 Micro/Macroeconomics	3	_____	_____
*	EGR 226 MicroCtrl Pgm Appl	4	_____	_____
	Semester: S/S ____			
	_____	__	_____	_____
	_____	__	_____	_____
	_____	__	_____	_____
3rd Year	**5th Semester: Fall____**			
+ *	PHY 234/1 Physics II	4/5	_____	_____
*	EGR 214 Circuit Analysis I	4	_____	_____
*	EGR 209 Mech & Mach	4	_____	_____
*	EGR 289 Engrg Co-op Prep	1	_____	_____
	6th Semester: Winter ____			
*	MTH 302 Differential Equations	4	_____	_____
*	EGR 309 or 223 Mach Dsgn or Prob/Signa	3/4	_____	_____
*	EGR 250 or 257 Materials	4	_____	_____
~	EGR 224 or 312 Intro Dig Sys or Dynamic	3	_____	_____
	Semester: S/S ____			
	EGR 290 Engrg Co-op I	3	_____	_____
4th Year	**7th Semester: Fall____**			
&	EGR 360, 314 or IE Elective	4	_____	_____
$	EGR 346 Mechatronic Sys	4	_____	_____
	IE Elec _____	3/4	_____	_____
	Semester: Winter ____			
	EGR 390 Engrg Co-op II (SWS)	3	_____	_____
	8th Semester: S/S ____			
&	EGR 362 or IE Elective	4	_____	_____
~	EGR 323 or 365 Signals or Fluids	3/4	_____	_____
#	GE GP _____	3	_____	_____
	GE Arts _____	3	_____	_____
•	GE SBS/US	3	_____	_____
5th Year	**Semester: Fall____**			
	EGR 490 Engrg Co-op III	3	_____	_____
	EGR 463 Alternative Energy	3	_____	_____
	9th Semester: Winter ____			
	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 ____			
	EGR 486 Sr Project II	2	_____	_____
	IE Elec. _____	3/4	_____	_____

* 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)

\# Consider taking a course that doubles as GP and Historical Perspectives (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. Check course offering ASAP for planning purposes.

$ IE required course Systems and Control (must take EGR 326, EGR 345 or EGR 346)

! Not required, but highly recommended for success. Students should take EGR 100 or EGR 180

~ 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	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 345	4	Dynamic Sys Model & Control	Fall	Only if not taken for required course, no double dipping	
EGR 346	4	Mechatronic Sys Dyn & Control	Fall		
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.

PCEC Student Services
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