

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

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

(2018-19 Catalog) (MTH 201 Placement - 5 Year Program)

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

Student ID#: G

1st Year	<b>1st Semester: Fall</b> _____			Credits	Grade	Semester Completed	<b>2nd Semester: Winter</b> _____			Credits	Grade	Semester Completed	<b>Semester: S/S</b> _____			Credits	Grade	Semester Completed						
	* 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	<b>3rd Semester: Fall</b> _____			Credits	Grade	Semester Completed	<b>4th Semester: Winter</b> _____			Credits	Grade	Semester Completed	<b>Semester: S/S</b> _____			Credits	Grade	Semester Completed						
	* 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				_____	_____	• GE SBS/US				_____	3	_____				_____	_____	_____			
% ECO 210/211	Micro/Macroecon.	3	_____	_____																				
3rd Year	<b>5th Semester: Fall</b> _____			Credits	Grade	Semester Completed	<b>6th Semester: Winter</b> _____			Credits	Grade	Semester Completed	<b>Semester: S/S</b> _____			Credits	Grade	Semester Completed						
	+ * PHY 234/1	Physics II	4/5				_____	_____	* EGR 309 or 223				Mach Dsgn or Prob/Signa	3/4	_____				_____	EGR 290	Engrg Co-op I	3	_____	_____
	* EGR 214	Circuit Analysis I	4				_____	_____	* EGR 250 or 257				Materials	4	_____				_____					
	* EGR 209	Mech & Mach	4				_____	_____	~ EGR 224 or 312				Intro Dig Sys or Dynamic	3	_____				_____					
	* EGR 289	Engrg Co-op Prep	1				_____	_____																
4th Year	<b>7th Semester: Fall</b> _____			Credits	Grade	Semester Completed	<b>Semester: Winter</b> _____			Credits	Grade	Semester Completed	<b>8th Semester: S/S</b> _____			Credits	Grade	Semester Completed						
	& EGR 360, 314 or IE	Elective	4				_____	_____	EGR 390				Engrg Co-op II (sws)	3	_____				_____	& EGR 362 or IE	Elective	4	_____	_____
	\$ EGR 346	Mechatronic Sys	4				_____	_____												~ EGR 323 or 365	Signals or Fluids	3/4	_____	_____
	IE Elec	_____	3/4				_____	_____											@ PHI 102	Ethics	3	_____	_____	
										# GE GP	_____	3	_____	_____										
5th Year	<b>Semester: Fall</b> _____			Credits	Grade	Semester Completed	<b>9th Semester: Winter</b> _____			Credits	Grade	Semester Completed	<b>10th Semester: S/S</b> _____			Credits	Grade	Semester Completed						
	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.	_____	3/4	_____	_____
						EGR 413	Matls Energy Storage	3	_____	_____														
						^ GEO 360	Earth Resources	3	_____	_____														
						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)

~ IE Prerequisite course for upper-level electives (EGR 224 is for Solar Track ONLY!)

Electives	Credits	Title	Semester	Course Prerequisites	Energy Focus
		Circuit Analysis II		Only if not taken for required course, no double dipping	
EGR 314	4		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