

Study Plan for B.S.E., **PRODUCT DESIGN & MANUFACTURING ENGINEERING** Major & Robotics and Control Emphasis

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

(2019-20 Catalog) (MTH 123 Placement - 5 Year Program)

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

Student ID#: G

Year	1st Semester: Fall _____				2nd Semester: Winter _____				Semester: S/S _____				
		Credits	Grade	Semester Completed		Credits	Grade	Semester Completed		Credits	Grade	Semester Completed	
1st Year	MTH 123	Trigonometry	3	_____	* MTH 201	Calculus I	4	_____	_____	_____	_____	_____	
	* WRT 150	Writ Strategies	4	_____	* CHM 115	Chemistry I	4	_____	_____	_____	_____	_____	
	^ EGR 100	Intro to Engrg	1	_____	* EGR 106	Intro to Egr Design I	3	_____	_____	_____	_____	_____	
	GE - HP	_____	3	_____	• GE-SBS	_____	3	_____	_____	_____	_____	_____	
	GE - Arts	_____	3	_____									
2nd Year	3rd Semester: Fall _____				4th Semester: Winter _____				Semester: S/S _____				
		Credits	Grade	Semester Completed		Credits	Grade	Semester Completed		Credits	Grade	Semester Completed	
	* MTH 202	Calculus II	4	_____	* MTH 203	Calculus III	4	_____	_____	_____	_____	_____	
	* EGR 107	Intro to Egr Design II	3	_____	* STA 220	Statistical Modeling	2	_____	_____	_____	_____	_____	
	@ GE - P & L (PHI 102 Ethics)	_____	3	_____	* EGR 220	Measure/Data Analysis	1	_____	_____	_____	_____	_____	
	GE - US	_____	3	_____	* PHY 230	Physics I	5	_____	_____	_____	_____	_____	
				# GE - GP	_____	3	_____	_____	_____	_____	_____	_____	
3rd Year	5th Semester: Fall _____				6th Semester: Winter _____				Semester: S/S _____				
		Credits	Grade	Semester Completed		Credits	Grade	Semester Completed		Credits	Grade	Semester Completed	
	+ * PHY 234/1	Physics II	4/5	_____	* MTH 302	Lin Alg & DEQ	4	_____	_____	EGR 290	Engrg Co-op I	3	_____
	* EGR 209	Mech & Mach	4	_____	* EGR 309	Mach Design I	4	_____	_____	_____	_____	_____	_____
	* EGR 226	MicroCtrl Pgm Appl	4	_____	* EGR 250	Mat Sci & Engrg	4	_____	_____	_____	_____	_____	_____
	EGR 289	Engrg Co-op Prep	1	_____	* EGR 214	Circuit Analysis I	4	_____	_____	_____	_____	_____	
4th Year	7th Semester: Fall _____				Semester: Winter _____				8th Semester: S/S _____				
		Credits	Grade	Semester Completed		Credits	Grade	Semester Completed		Credits	Grade	Semester Completed	
	EGR 301	Fund Prod Des	4	_____	EGR 390	Engrg Co-op II	3	_____	_____	EGR 362	Thermo-Fluid Sys	4	_____
	EGR 345	Dyn Sys Mod	4	_____	_____	_____	_____	_____	_____	EGR 440	Prod'n Models	3	_____
	EGR 367	Mfg Processes	4	_____	_____	_____	_____	_____	_____	EGR 445	Robotics Sys	4	_____
	GE - Issue	_____	3	_____	_____	_____	_____	_____	% ECO 210/211	Economics	3	_____	
5th Year	Semester: Fall _____				9th Semester: Winter _____				10th Semester: S/S _____				
		Credits	Grade	Semester Completed		Credits	Grade	Semester Completed		Credits	Grade	Semester Completed	
	EGR 490	Engrg Co-op III	3	_____	EGR 450	Mfg Controls	4	_____	_____	EGR 486	Sr Project II	2	_____
	GE - Issue	_____	3	_____	EGR 485	Sr Project I	1	_____	_____	EGR 409	Mach Design II	4	_____
					\$ PDM Elec	_____	3/4	_____	_____				
				\$ PDM Elec	_____	3/4	_____	_____					
				GE - LS	_____	3	_____	_____					

PCEC Student Services: (616)331-6025

- \* Engineering Foundation course
- + Students may enroll in PHY 231 instead of PHY 234
- ^ Not required, but strongly recommended for success.
- 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 Issue (See Gen Ed guide for selections)
- @ An ethics course is required in the engineering program (PHI 102 or another ethics course in General Education). Consider taking PHI 102 as an SWS
- % ECO 210 or 211 is required in the engineering curriculum. Also fulfills one SBS Gen Ed requirement.
- \$ **Electives (2 required)**  
 EGR 312 Dynamics  
 EGR 352 Kinematics and Dynamics of Machinery  
 EGR 405 Materials Failure Analysis  
 EGR 441 Engineering Economics, Quality Control and Manufacturing Operations

**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**
- 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.