

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

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

(2019-20 Catalog) (MTH 201 Placement - 5 Year Program)

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

Student ID#: G

Year	Semester	Credits	Grade	Semester Completed	Semester	Credits	Grade	Semester Completed	Semester	Credits	Grade	Semester Completed
1st Year	<b>1st Semester: Fall</b>				<b>2nd Semester: Winter</b>				<b>Semester: S/S</b>			
	* 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>				<b>4th Semester: Winter</b>				<b>Semester: S/S</b>			
	* MTH 203 Calculus III	4	_____	_____	* MTH 302 Lin Alg & DEQ	4	_____	_____	_____	_____	_____	_____
	* STA 220 Statistical Modeling	2	_____	_____	% ECO 210/211 Economics	3	_____	_____	_____	_____	_____	_____
	* EGR 220 Measure/Data Analysis	1	_____	_____	* PHY 230 Physics I	5	_____	_____	_____	_____	_____	_____
	• GE-SBS	3	_____	_____	# GE - GP	3	_____	_____				
	@ GE - P & L (PHI 102 Ethics)	3	_____	_____								
3rd Year	<b>5th Semester: Fall</b>				<b>6th Semester: Winter</b>				<b>Semester: S/S</b>			
	+ * PHY 234/1 Physics II	4/5	_____	_____	* EGR 309 Mach Design I	4	_____	_____	EGR 290 Engrg Co-op I	3	_____	_____
	* EGR 226 MicroCtrl Pgm Appl	4	_____	_____	* EGR 250 Mat Sci & Engrg	4	_____	_____				
	* EGR 209 Mech & Mach	4	_____	_____	* EGR 214 Circuit Analysis I	4	_____	_____				
	* EGR 289 Engrg Co-op Prep	1	_____	_____	GE - LS	3	_____	_____				
4th Year	<b>7th Semester: Fall</b>				<b>Semester: Winter</b>				<b>8th Semester: S/S</b>			
	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	_____	_____				GE - Issue	3	_____	_____	
5th Year	<b>Semester: Fall</b>				<b>9th Semester: Winter</b>				<b>10th Semester: S/S</b>			
	EGR 490 Engrg Co-op III	3	_____	_____	EGR 450 Mfg Controls	4	_____	_____	EGR 486 Sr Project II	2	_____	_____
					EGR 485 Sr Project I	1	_____	_____	EGR 409 Mach Design II	4	_____	_____
					\$ PDM Elec	3/4	_____	_____				
				\$ PDM Elec	3/4	_____	_____					
				GE - US	3	_____	_____					

**PCEC Student Services: (616)331-6025**

- \* 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 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.