

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

Student Name: _____

(2019-20 Catalog) (MTH 122 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	1st Semester: Fall				2nd Semester: Winter				Semester: S/S			
	MTH 122 College Algebra	3			MTH 123 Trigonometry	3						
	* WRT 150 Writ Strategies	4			* CHM 115 Chemistry I	4						
	^ EGR 100 Intro to Engrg	1			GE - HP	3						
	GE - Arts	3			GE - LS	3						
	• GE-SBS	3										
2nd Year	3rd Semester: Fall				4th Semester: Winter				Semester: S/S			
	* MTH 201 Calculus I	4			* MTH 202 Calculus II	4						
	* EGR 106 Intro to Egr Design I	3			* EGR 107 Intro to Egr Design II	3						
	% ECO 210/211 Economics	3			* PHY 230 Physics I	5						
	# GE - GP	3			* STA 220 Statistical Modeling	2						
				* EGR 220 Measure/Data Analysis	1							
3rd Year	5th Semester: Fall				6th Semester: Winter				Semester: S/S			
	* MTH 203 Calculus III	4			* MTH 302 Lin Alg & DEQ	4			EGR 290 Engrg Co-op I	3		
	+ * PHY 234/1 Physics II	4/5			* EGR 309 Mach Design I	4						
	* EGR 209 Mech & Mach	4			* EGR 250 Mat Sci & Engrg	4						
	* EGR 226 MicroCtrl Pgm Appl	4			* EGR 214 Circuit Analysis I	4						
	* EGR 289 Engrg Co-op Prep	1										
4th Year	7th Semester: Fall				Semester: Winter				8th Semester: S/S			
	EGR 301 Fund Prod Des	4			EGR 390 Engrg Co-op II (SWS)	3			EGR 362 Thermo-Fluid Sys	4		
	EGR 345 Dyn Sys Mod	4			GE - Issue	3			EGR 329 Intro to FEA	3		
	EGR 367 Mfg Processes	4							EGR 405 Mat Analysis	3		
	GE - Issue	3							@ GE - P & L (PHI 102 Ethics)	3		
5th Year	Semester: Fall				9th Semester: Winter				10th Semester: S/S			
	EGR 490 Engrg Co-op III	3			EGR 401 Adv Prod Design	4			EGR 486 Sr Project II	2		
					EGR 485 Sr Project I	1			EGR 440 Prod'n Models	3		
				§ PDM Elec	3/4			GE - US	3			
				§ PDM Elec	3/4							

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 WP 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 (Choose 2)

- EGR 311 Intermediate CAD/CAM
- EGR 326 Embedded System Design
- EGR 403 Medical Device Design
- EGR 404 Polymer Science and Processing
- EGR 409 Machine Design II
- EGR 441 Engineering Economics, Quality Control, and Manufacturing Operations
- EGR 453 Biomedical Materials
- STA 315 Design of Experiments

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.