

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

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

(2019-20 Catalog) (MTH 201 Placement with Honors Alliance and Conflict - 5 Year Program)

Student ID#: G

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

	1st Semester: Fall _____	Credits	Grade	Semester Completed	2nd Semester: Winter _____	Credits	Grade	Semester Completed	Semester: S/S _____	Credits	Grade	Semester Completed
1st Year	* MTH 201 Calculus I	4	_____	_____	* MTH 202 Calculus II	4	_____	_____	_____	_____	_____	_____
	* CHM 115 Chemistry I	4	_____	_____	* EGR 106 Intro to Egr Design I	3	_____	_____	_____	_____	_____	_____
	HNR 260	3	_____	_____	HNR 261	3	_____	_____	_____	_____	_____	_____
	HNR 201 Live, Learn, Lead	3	_____	_____	HNR 262	3	_____	_____	_____	_____	_____	_____
2nd Year	3rd Semester: Fall _____	Credits	Grade	Semester Completed	4th Semester: Winter _____	Credits	Grade	Semester Completed	Semester: S/S _____	Credits	Grade	Semester Completed
	* MTH 203 Calculus III	4	_____	_____	* MTH 302 Lin Alg & DEQ	4	_____	_____	_____	_____	_____	_____
	* EGR 107 Intro to Egr Design I	3	_____	_____	+ * PHY 231 Physics II	5	_____	_____	_____	_____	_____	_____
	* PHY 230 Physics I	5	_____	_____	% ECO 210/211 Economics	3	_____	_____	_____	_____	_____	_____
	* STA 220 Statistical Modeling	2	_____	_____								
* EGR 220 Measure/Data Analy:	1	_____	_____									
3rd Year	5th Semester: Fall _____	Credits	Grade	Semester Completed	6th Semester: Winter _____	Credits	Grade	Semester Completed	Semester: S/S _____	Credits	Grade	Semester Completed
	* EGR 226 MicroCtrl Pgm Appl	4	_____	_____	* EGR 309 Mach Design I	4	_____	_____	EGR 290 Enggr Co-op I	3	_____	_____
	* EGR 214 Circuit Analysis I	4	_____	_____	* EGR 250 Mat Sci & Engrg	4	_____	_____				
	* EGR 209 Mech & Mach	4	_____	_____	HNR LS	3	_____	_____				
* EGR 289 Engrg Co-op Prep	1	_____	_____	\$ HNR US	3	_____	_____					
4th Year	7th Semester: Fall _____	Credits	Grade	Semester Completed	Semester: Winter _____	Credits	Grade	Semester Completed	8th Semester: S/S _____	Credits	Grade	Semester Completed
	EGR 301 Fund Prod Des	4	_____	_____	EGR 390 Enggr Co-op II (sws)	3	_____	_____	EGR 362 Thermo-Fluid S:	4	_____	_____
	EGR 345 Dyn Sys Mod	4	_____	_____					EGR 329 Intro to FEA	3	_____	_____
EGR 367 Mfg Processes	4	_____	_____					EGR 405 Mat Analysis	3	_____	_____	
								# HNR Jr. Sem	3	_____	_____	
5th Year	Semester: Fall _____	Credits	Grade	Semester Completed	9th Semester: Winter _____	Credits	Grade	Semester Completed	10th Semester: S/S _____	Credits	Grade	Semester Completed
	EGR 490 Enggr Co-op III	3	_____	_____	EGR 401 Adv Prod Design	4	_____	_____	& EGR 486 Sr Project II	2	_____	_____
				^ PDM Elec	3/4	_____	_____	EGR 440 Prod'n Models	3	_____	_____	
				^ PDM Elec	3/4	_____	_____					
				& EGR 485 Sr Project I	1	_____	_____					

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

- \* Engineering Foundation course
- + Engineering Physics II (PHY 234) is available in fall only.
- # The Jr. Seminar fulfills one Issues and one SWS requirement. HNR 312 will also fulfill US Diversity. Junior Seminars can be taken when students have >= 45 credits. Online seminars offered each semester.
- % ECO 210 or 211 is required in the engineering curriculum. Also fulfills one SBS HNR requirement.
- \$ HNR US Diversity requirement can be met with a Jr. Seminar (HNR 312).
- & Completion of EGR 485 and 486 will fulfill the HNR 499 Senior Project requirement.
- ^ **Electives (Choose 2)**  
 EGR 311 Intermediate CAD/CAM                      EGR 409 Machine Design II  
 EGR 326 Embedded System Design              EGR 441 Engineering Economics, Quality Control, and Manufacturing Operations  
 EGR 403 Medical Device Design                EGR 453 Biomedical Materials  
 EGR 404 Polymer Science and Processing      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 in each Foundation 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.

**If students do not have Advanced Placement credit applicable to the engineering curriculum, e.g., Calculus, Physics, and/or Chemistry, it is strongly recommended that they consider a 5-year plan.**