

Study Plan for B.S.E., **PRODUCT DESIGN & MANUFACTURING ENGINEERING** Major & Robotics and Control 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 Analysis	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 Enggr 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 Sys	4	_____	_____
	EGR 345 Dyn Sys Mod	4	_____	_____					EGR 440 Prod'n Models	3	_____	_____
EGR 367 Mfg Processes	4	_____	_____					EGR 445 Robotics Sys	4	_____	_____	
								# 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 450 Mfg Controls	4	_____	_____	& EGR 486 Sr Project II	2	_____	_____
				^ PDM Elec	3/4	_____	_____	EGR 409 Mach Design II	4	_____	_____	
				& EGR 485 Sr Project I	1	_____	_____					
				^ PDM Elec	3/4	_____	_____					

**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 (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 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.**