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

2019-20 Catalog)	(MTH 201 Placement with Honors Alliance and Conflict - 4 Year Program

Student Name:	
Student ID#:	G

Minor:	

1st Year	* MTH 201 Calculus I CHM 115 Chemistry I HNR 260 HNR 201 Live, Learn, Lead	4 4 3 3 3	 Semester Completed	2nd S * MTH * EGR HNR HNR	202 106 261 262	ter: Winter Calculus II Intro to Egr Design I	3		Semester Completed	* EC	emester: GR 107 ГН 203 IY 230	Calculus III	Credits	 Semester Completed
2nd Year	3rd Semester: Fall  * PHY 234/1 Physics II  * STA 220 Statistical Modeling  * EGR 220 Measure/Data Analy  * EGR 209 Mech & Mach  * EGR 289 Engrg Co-op Prep	4/5 2 s 1 4 1	Semester Completed	4th S  * MTH  * EGR  * EGR  * EGR		ter: Winter Lin Alg & DEQ Mach Design I Mat. Sci. & Engrg MicroCtrl Pgm Appl	b Credits		Semester Completed	EC	GR 290	Engrg Co-op I Circuit Analysis I		Semester Completed
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3rd Year	5th Semester: Fall EGR 301 Fund Prod Des EGR 345 Dyn Sys Mod EGR 367 Mfg Processes	4 4 Credits	 Semester Completed	Seme EGR		Winter Engrg Co-op II (sws)	S. Credits	Grade	Semester Completed 	EC EC	GR 362 GR 329 GR 405	Thermo-Fluid Sys Intro to FEA Mat. Analysis		 Semester Completed

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

- Engineering Foundation course
- + Students may enroll in PHY 231 instead of PHY 234
- # The Jr. Seminar fulfills one Issue 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.