Study Plan for B.S.E., PRODUCT DESIGN & MANUFACTURING ENGINEERING Major & Robotics and Control Emphasis **Student Name:** G(2019-20 Catalog) (MTH 122 Placement - 5 Year Program) Student ID#: Minor: Semester Semester Semester 2nd Semester: Winter Grade Completed Semester: S/S 1st Semester: Fall Grade Completed Grade Completed MTH 122 College Algebra MTH 123 Trigonometry * WRT 150 Writ Strategies CHM 115 Chemistry I ^ EGR 100 Intro to Engrg GE - HP GE - Arts GE - LS • GE-SBS Semester Semester Semester Semester: S/S Completed 3rd Semester: Fall Completed 4th Semester: Winter Completed 2nd Year * MTH 201 Calculus I MTH 202 Calculus II * EGR 106 Intro to Egr Design I 3 EGR 107 Intro to Egr Design II 3 % ECO 210/211 Economics PHY 230 Physics I # GE - GP STA 220 Statistical Modeling 2 * EGR 220 Measure/Data Analysis Semester Semester Semester 5th Semester: Fall Completed 6th Semester: Winter Grade Completed Semester: S/S Grade Completed Grade * MTH 203 Calculus III MTH 302 Lin Alg & DEQ EGR 290 Engrg Co-op I 309 Mach Design I * PHY 234/1 Physics II EGR * EGR 209 Mech & Mach 250 Mat Sci & Engrg * EGR 226 MicroCtrl Pgm Appl EGR 214 Circuit Analysis I * EGR 289 Engrg Co-op Prep Semester Semester Semester Completed Completed 7th Semester: Fall Completed Semester: Winter 8th Semester: S/S Grade Grade Grade EGR 301 Fund Prod Des EGR 390 Engrg Co-op II EGR 362 Thermo-Fluid Svs 4 EGR 345 Dyn Sys Mod GE - Issue _____ EGR 440 Prod'n Models EGR 367 Mfg Processes EGR 445 Robotics Sys GE - Issue @ GE - P & L (PHI 102 Ethics) Semester Semester Semester Semester: Fall____ 9th Semester: Winter Grade Completed 10th Semester: S/S Grade Completed Grade Completed EGR 490 Engrg Co-op III EGR 450 Mfg Controls EGR 486 Sr Project II 5th Year 2 EGR 485 Sr Project I EGR 409 Mach Design II 4 PDM Elec 3/4 PDM Elec 3/4 GE - US Secondary Admissions Criteria: PCEC Student Services: (616)331-6025 - A GPA of 2.7 or above in the Engineering Foundation courses

- * 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 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

- 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.