

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

(2017-18 Catalog) (MTH 110 Placement - 5 Year Program) Minor: \_\_\_\_\_

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

Student ID#: *G* \_\_\_\_\_

|          |                         |                             |                 |                       |                  |     |            |              |                     |                            |   |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|----------|-------------------------|-----------------------------|-----------------|-----------------------|------------------|-----|------------|--------------|---------------------|----------------------------|---|--|--|--|--|---------|-------|--------------------|--------------------------|--|--|--|--|--|---------|-------|--------------------|
| 1st Year | 1st Semester: Fall_____ |                             |                 |                       |                  |     | Credits    | Grade        | Semester Completed  | 2nd Semester: Winter _____ |   |  |  |  |  | Credits | Grade | Semester Completed | Semester: S/S _____      |  |  |  |  |  | Credits | Grade | Semester Completed |
|          | MTH                     | 110                         | Algebra         | 4                     |                  |     | MTH        | 122          | College Algebra     | 3                          |   |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          | *                       | WRT                         | 150             | Writ Strategies       | 4                |     | MTH        | 123          | Trigonometry        | 3                          |   |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          | ^                       | EGR                         | 100             | Intro to Engrg        | 1                |     | *          | CHM          | 115                 | Chemistry I                | 4 |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          |                         | GE - Arts                   |                 |                       | 3                |     | •          | GE-SBS       |                     | 3                          |   |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          |                         | GE - Hist                   |                 |                       | 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                         | 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 - P & L (PHI 102 Ethics) |                 | 3                     |                  |     | *          | STA          | 220                 | Engrg Statistics           | 2 |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          |                         |                             |                 |                       |                  |     | *          | EGR          | 220                 | Engrg Stats Lab            | 1 |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
| 3rd Year | 5th Semester: Fall_____ |                             |                 |                       |                  |     | Credits    | Grade        | Semester Completed  | 6th Semester: Winter _____ |   |  |  |  |  | Credits | Grade | Semester Completed | Semester: S/S _____      |  |  |  |  |  | Credits | Grade | Semester Completed |
|          | *                       | MTH                         | 203             | Calculus III          | 4                |     | *          | MTH          | 302                 | Lin Alg & DEQ              | 4 |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          | +                       | *                           | 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_____ |                             |                 |                       |                  |     | 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          | Engrg Co-op II(sws) | 3                          |   |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          | EGR                     | 345                         | Dyn Sys Mod     | 4                     |                  |     | GE - Issue |              | 3                   |                            |   |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          | EGR                     | 367                         | Mfg Processes   | 4                     |                  |     |            |              |                     |                            |   |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          | #                       | ^                           | EGR             | 306                   | Urban Env & Sust | 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                         | Engrg Co-op III | 3                     |                  |     | EGR        | 401          | Adv Prod Design     | 4                          |   |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          | #                       | GE - WP                     |                 | 3                     |                  |     | EGR        | 450          | Mfg Controls        | 4                          |   |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          |                         |                             |                 |                       |                  | EGR | 485        | Sr Project I | 1                   |                            |   |  |  |  |  |         |       |                    |                          |  |  |  |  |  |         |       |                    |
|          |                         |                             |                 |                       |                  | PDM | Elec       |              | 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.

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.