

Study Plan for B.S.E., **INTERDISCIPLINARY ENGINEERING** & Data Science emphasis

(2019-20 Catalog) (MTH 122 Placement - 5 Year Program)

Minor: _____

Student Name: _____

Student ID#: **G** _____

| Year | Semester | Credits | Grade | Semester Completed | Semester | Credits | Grade | Semester Completed | Semester | Credits | Grade | Semester Completed |
|----------------------------|---------------------------------|---------|-------|---------------------------------|----------------------------------|---------|-------|--------------------|---|---------|-------|--------------------|
| 1st Year | 1st Semester: Fall | | | | 2nd Semester: Winter | | | | Semester: S/S | | | |
| | MTH 122 College Algebra | 3 | _____ | _____ | MTH 123 Trigonometry | 3 | _____ | _____ | _____ | _____ | _____ | _____ |
| | * WRT 150 Writ Strategies | 4 | _____ | _____ | * CHM 115 Chemistry I | 4 | _____ | _____ | _____ | _____ | _____ | _____ |
| | ^ EGR 100 Intro to Engrg | 1 | _____ | _____ | GE - HP _____ | 3 | _____ | _____ | _____ | _____ | _____ | _____ |
| | GE - Arts _____ | 3 | _____ | _____ | GE - LS _____ | 3 | _____ | _____ | _____ | _____ | _____ | _____ |
| • GE-SBS _____ | 3 | _____ | _____ | | | | | | | | | |
| 2nd Year | 3rd Semester: Fall | | | | 4th Semester: Winter | | | | Semester: S/S | | | |
| | * 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 Statistical Modeling | 2 | _____ | _____ | _____ | _____ | _____ | _____ |
| | | | | * EGR 220 Measure/Data Analysis | 1 | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 3rd Year | 5th Semester: Fall | | | | 6th Semester: Winter | | | | Semester: S/S | | | |
| | * MTH 203 Calculus III | 4 | _____ | _____ | * MTH 302 Lin Alg & DEQ | 4 | _____ | _____ | EGR 290 Engrg Co-op I | 3 | _____ | _____ |
| | + * PHY 234/1 Physics II | 4/5 | _____ | _____ | * EGR 309 Machine Design I | 4 | _____ | _____ | STA 216 Inter Applied Stats | 3 | _____ | _____ |
| | * EGR 226 MicroCtrl Pgm Appl | 4 | _____ | _____ | * EGR 250 Material Sci & Egr | 4 | _____ | _____ | | | | |
| | * EGR 209 Mech & Mach | 4 | _____ | _____ | * EGR 214 Circuit Analysis I | 4 | _____ | _____ | | | | |
| * EGR 289 Engrg Co-op Prep | 1 | _____ | _____ | | | | | | | | | |
| 4th Year | 7th Semester: Fall | | | | Semester: Winter | | | | 8th Semester: S/S | | | |
| | EGR 345 Dyn Sys Mod | 4 | _____ | _____ | EGR 390 Engrg Co-op II (SWS) | 3 | _____ | _____ | EGR 362 Thermo-Fluids | 4 | _____ | _____ |
| | EGR 367 Mfg Processes | 4 | _____ | _____ | | | | | EGR 440 Production Models | 3 | _____ | _____ |
| | STA 321 App Regres Anlys | 3 | _____ | _____ | | | | | EGR 441 Engrg Econ/QC/Mfg Ops | 4 | _____ | _____ |
| = CIS 161/2 Comp Sci | 3 | _____ | _____ | | | | | # GE - Issue _____ | 3 | _____ | _____ | |
| 5th Year | Semester: Fall | | | | 9th Semester: Winter | | | | 10th Semester: S/S | | | |
| | EGR 490 Engrg Co-op III | 3 | _____ | _____ | EGR 485 Sr Project I | 1 | _____ | _____ | EGR 486 Sr Project II | 2 | _____ | _____ |
| | | | | | CIS 335 Data Mining | 3 | _____ | _____ | IE Elec. (STA 314, EGR 641, or EGR 642) | 3 | _____ | _____ |
| | | | | | CIS 360 Info Mgt & Sci | 3 | _____ | _____ | • GE - US _____ | 3 | _____ | _____ |
| | | | | | STA 426 Multivar Data Anlys | 3 | _____ | _____ | # GE - GP _____ | 3 | _____ | _____ |
| | | | | GE - Issue _____ | 3 | _____ | _____ | | | | | |

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 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).
- % ECO 210 or 211 is required in the engineering curriculum. Also fulfills one SBS Gen Ed requirement.
- = Either CIS 161 or CIS 162 is required

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 per Foundations 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.