

Interdisciplinary Engineering (Engineering Management Emphasis)

Grand Valley State University 2020-21 Catalog

MTH 201 Placement – 5 year Honors program

Secondary Admission Criteria

1) A GPA of 2.7 or above in the Engineering Foundation courses. Engineering Foundation courses are designated by an asterisk (*) on this guide.

2) Completion of each course in the Engineering Foundation with a grade of C (2.0) or above, with no more than one repeat.

3) Completion of preparation for placement in the cooperative engineering education course, EGR 289.

1st Semester Fall: 14 credits

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| *MTH 201 | Calculus 1 |
| *EGR 100 | Introduction to Engineering |
| *EGR 111 | Introduction to Engineering Graphics |
| *EGR 112 | Applied Programming for Engineers |
| HNR 151 | First Year Interdisciplinary Sequence 1 |
| HNR 152 | First Year Interdisciplinary Sequence 2 |

2nd Semester Winter: 13 credits

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| *MTH 202 | Calculus 2 |
| *EGR 113 | Introduction to CAD/CAM |
| *EGR 185 | First-Year Engineering Design |
| HNR 153 | First Year Interdisciplinary Sequence 3 |
| HNR 154 | First Year Interdisciplinary Sequence 4 |

3rd Semester Fall: 14 credits

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| *MTH 203 | Calculus 3 |
| *CHM 115 | Chemistry 1 |
| *STA 220 | Statistical Modeling for Engineers |
| *EGR 220 | Egr Measurement and Data Analysis |
| HNR 201 | Live. Learn. Lead. |

4th Semester Winter: 12 credits

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| *MTH 302 | Linear Algebra and Differential Equations |
| *PHY 230 | Physics 1 |
| HNR 200 | Campus/Community Engagement |

5th Semester Fall: 13-14 credits

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| *PHY 234 or 231 | Physics 2 |
| *EGR 209 | Mechanics and Machines |
| *EGR 226 | Microcontroller Programming |
| *EGR 289 | Engineering Co-op Preparation |

6th Semester Winter: 12 credits

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| *EGR 309 | Machine Design 1 |
| *EGR 250 | Materials Science and Engineering |
| *EGR 214 | Circuit Analysis 1 |

Spring/Summer Semester: 3 credits

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| EGR 290 | Engineering Co-op 1 |
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7th Semester Fall: 14 credits

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| EGR 345 | Dynamic System Modeling and Control |
| EGR 367 | Manufacturing Processes |
| ACC 212 | Principles of Financial Accounting |
| BUS 201 | Legal Environment for Business |

Winter Semester: 3 credits

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| EGR 390 | Engineering Co-op 2 |
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8th Semester Spring/Summer: 14 credits

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| EGR 362 | Thermal and Fluid Systems |
| EGR 440 | Introduction to Production |
| EGR 441 | Engineering Economics, Quality Control, and Manufacturing Operations |
| ACC 213 | Principles of Managerial Accounting |

Fall Semester: 3 credits

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| EGR 490 | Engineering Co-op 3 |
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9th Semester Winter: 13 credits

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| EGR 485 | Senior Engineering Project 1 |
| FIN 320 OR FIN 300 | Managerial Finance |
| MGT 331 OR MGT 300 | Managing People & Organizations |
| HNR 350 | Honors Integrative Seminar |
| ECO 210 OR 211 | Economics |

10th Semester Spring/Summer: 5 credits

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| EGR 486 | Senior Engineering Project 2 |
| MKT 350 OR MKT 300 | Marketing Management |

It is important to meet with a professional advisor in the PCEC Advising Center on a regular basis. The PCEC Advising Center is located in 101 Eberhard Center. Please call 616-331-6025 or go online at www.gvsu.edu/pcec/advising to schedule an appointment.

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Major Notes

An emphasis area is required for the Interdisciplinary Engineering major. Emphasis areas include: Data Science, Design & Innovation, Engineering Management, Environmental Engineering, Mechatronics and Renewable Energy.

- 1) To declare this emphasis, login to MyBanner, select “Student Records” and then “Change Major.”
- 2) Click on “Change Major 1” and select ***Interdisciplinary Engineering – Engineering Management Emphasis***.
- 3) Click “Submit” and then “Change to New Program.”

Honors

The Frederik Meijer Honors College and the School of Engineering have approved the following substitutions for the honors curriculum:

- 1) Together, EGR 100 and EGR 185 fulfill the HNR 251 requirement.
- 2) EGR 485 fulfills the HNR 401 requirement.
- 3) EGR 486 fulfills the HNR 499 requirement.
- 4) The completion of the honors curriculum will fulfill the engineering ethics requirement.

Students are encouraged to plan ahead and submit a proposal for how they plan to fulfill the HNR 200 requirement. All students must complete 3 credits of HNR 200 before graduation. It can be take as a 1-credit, 2-credit, or 3-credit course. There are three options for fulfilling this honors requirement: **pre-approved activity, pre-approved course substitution, or an activity or course**. Please work with an honors advisor to determine the best fit for you.

Recommendations

It is strongly encouraged that students do not begin or break curriculum thread by taking courses at other institutions.

For example:

Taking MTH 201 equivalent elsewhere, then return to Grand Valley and continuing in the math thread with MTH 202.

PCEC Advisors

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