Mechanical Engineering

Grand Valley State University 2021-22 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

*MTH 201	Calculus 1	4 credits
*EGR 100	Intro to EGR	1 credit
*EGR 111	Intro to EGR Graphics	1 credit
*EGR 112	Appl Program for EGR	2 credits
HNR 151	Interdisciplinary Seq. 1	3 credits
HNR 152	Interdisciplinary Seq. 2	3 credits

2nd Semester Winter: 13 credits

*MTH 202	Calculus 2	4 credits
*EGR 113	Intro to CAD/CAM	1 credit
*EGR 185	First-Year EGR Design	2 credits
HNR 153	Interdisciplinary Seq. 3	3 credits
HNR 154	Interdisciplinary Seq. 4	3 credits

3rd Semester Fall: 14 credits

*MTH 203	Calculus 3	4 credits
*CHM 115	Chemistry 1	4 credits
*STA 220	Stat Modeling for EGR	2 credits
*EGR 220	EGR Measure & Data	1 credit
HNR 201	Live. Learn. Lead.	3 credits

4th Semester Winter: 13 credits

*MTH 302	Linear Algebra/Diff Eq	4 credits
*EGR 226	Microcontroller Program	3 credits
*EGR 227	Microcontroller Program Lab	1 credit
*PHY 230	Physics 1	5 credits

5th Semester Fall: 13-14 credits

*PHY 234 or 231	Physics 2	4/5 credits
*EGR 214	Circuit Analysis 1	3 credits
*EGR 215	Circuit Analysis 1 Lab	1 credit
*EGR 209	Mechanics and Machines	4 credits
*EGR 289	EGR Professionalism	1 credit

6th Winter Semester: 13 credits

*EGR 309	Machine Design I	3 credits
*EGR 310	Machine Design I Lab	1 credit
*EGR 312	Dynamics	3 credits
HNR 200	C/C Engagement	3 credits
HNR 350	Integrative Seminar	3 credits

Spring/Summer Semester: 3 credits

EGR 290	Engineering Co-op 1	3 credits

7th Fall Semester: 12 credits

EGR 250	Materials Science & EGR	3 credits
EGR 251	Materials Science & EGR Lab	1 credit
EGR 346	Mechatronics & Control	4 credits
EGR 360	Thermodynamics	4 credits

Winter Semester: 3 credits

EGR 390	Engineering Co-op 2	3 credits

8th Semester Spring/Summer: 14 credits

EGR 329	Intro to FEA	3 credits
EGR 365	Fluid Mechanics	4 credits
EGR 409	Machine Design 2	4 credits
ECO 210 **OR** 211	Economics	3 credits

Fall Semester: 3 credits

EGR 490	Engineering Co-op 3	3 credits

9th Semester Winter: 8-9 credits

EGR 485	Senior EGR Project 1	1 credit
EGR 468	Heat Transfer	4 credits
Mechanical Engineering Elective		3-4 credits

10th Semester Spring/Summer: 8-10 credits

EGR 486	Senior EGR Project 2	2 credits
Mechanical Engineering Electives (Select 2)		6-8 credits

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 B-3-241 Mackinac Hall and 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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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

Elizabeth Brand, brandeli@gvsu.edu
Colin DeKuiper, dekuipec@gvsu.edu
Rebecca Kolodge, kolodgre@gvsu.edu
Jessica Noble, noblejes@gvsu.edu
Mary Nuznov, nuznovma@gvsu.edu
Audra Pretty-Smith, prettyau@gvsu.edu
Sara Wheeler, wheelesa@gvsu.edu