# **Electrical Engineering**

Grand Valley State University 2020-21 Catalog MTH 201 Placement – 4 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
*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: 16 credits

*MTH 202	Calculus 2
*PHY 230	Physics 1
*EGR 113	Introduction to CAD/CAM
HNR 153	First Year Interdisciplinary Sequence 3
HNR 154	First Year Interdisciplinary Sequence 4

### Spring/Summer Semester: 10 credits

*MTH 203	Calculus 3
*CHM 115	Chemistry 1

\*EGR 185 First-Year Engineering Design

## 3rd Semester Fall: 15-16 credits

*PHY 234 or 231 Physics 2		
*STA 220	Statistical Modeling for Engineers	
*EGR 220	Egr Measurement and Data Analysis	
*EGR 224	Introduction to Digital System	
*EGR 226	Microcontroller Programming	
*EGR 289	<b>Engineering Co-op Preparation</b>	

#### 4th Semester Winter: 15 credits

*MTH 302	Linear Algebra and Differential Equations
*EGR 223	Probability & Signal Analysis
*EGR 257	Electrical Materials and Devices
*EGR 214	Circuit Analysis 1

## Spring/Summer Semester: 3 credits

EGR 290 Engineering Co-op 1

#### 5th Semester Fall: 15 credits

EGR 314	Circuit Analysis 2
EGR 315	Electronic Circuits 1
EGR 326	Embedded System Design
HND 201	Live Learn Lead

#### Winter Semester: 3 credits

EGR 390 Engineering Co-op 2

#### 6th Semester Spring/Summer: 14 credits

EGR 330	Power Systems Analysis
EGR 343	Applied Electromagnetics
EGR 323	Signals and Systems Analysis
HNR 200	Campus/Community Engagement

#### Fall Semester: 3 credits

Engineering Co-op 3 EGR 490

#### 7th Semester Winter: 10-12 credits

EGR 485 Senior Engineering Project 1 Electrical Engineering Electives (Select 2) HNR 350 **Honors Integrative Seminar** 

#### 8th Semester Spring/Summer: 11-13 credits

EGR 486 Senior Engineering Project 2 Electrical Engineering Electives (Select 2) ECO 210 OR 211 Economics

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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#### 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 taken 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.