# **Electrical Engineering**

Grand Valley State University 2021-22 Catalog MTH 201 Placement – 4 year 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: 16 credits

*MTH 201	Calculus 1	4 credits
*WRT 150	Writing Strategies	4 credits
<b>OR</b> WRT 120/	WRT 130 (may change time	eline)
*EGR 100	Intro to EGR	1 credit
EGR 111 Intro to EGR Graphics		1 credit
*EGR 112	Appl Program for EGR	2 credits
*CHM 115	Chemistry 1	4 credits

#### 2nd Semester Winter: 15 credits

*MTH 202	Calculus 2	4 credits
*PHY 230	Physics 1	5 credits
*EGR 113	Intro to CAD/CAM	1 credit
*EGR 185	First-Year EGR Design	2 credits
*STA 220	Stat Modeling for EGR	2 credits
*EGR 220	EGR Measure & Data	1 credit

#### 3rd Semester Fall: 16-17 credits

*MTH 203	Calculus 3	4 credits
*PHY 234 or 231 Physics 2		4-5 credits
*EGR 224	Intro to Digital System	3 credits
*EGR 226	Microcontroller Program	3 credits
*EGR 227	Microcontroller Program Lab	1 credit
*EGR 289	EGR Professionalism	1 credit

#### 4th Semester Winter: 15 credits

*MTH 302	Linear Algebra/Diff Eq	4 credits
*EGR 223	Prob. & Signal Analysis	3 credits
*EGR 257	Elec. Materials & Devices	4 credits
*EGR 214	Circuit Analysis 1	3 credits
*EGR 215	Circuit Analysis 1 Lab	1 credit

#### Spring/Summer Semester: 6 credits

EGR 290	3 credits	
General Education	n Course	3 credits

#### 5th Semester Fall: 15 credits

EGR 314	Circuit Analysis 2	4 credits
EGR 315	Electronic Circuits 1	4 credits
EGR 326	Embedded Sys. Design	4 credits
General Education	on Course	3 credits

#### Winter Semester: 6 credits

EGR 390	Engineering Co-op 2	3 credits
General Educat	tion Course	3 credits

#### 6th Semester Spring/Summer: 17 credits

EGR 330	4 credits	
EGR 343	<b>Applied Electromagnetics</b>	4 credits
EGR 323	3 credits	
ECO 210 OR 211 Economics		3 credits
General Education Course		3 credits

#### Fall Semester: 6 credits

EGR 490	Engineering Co-op 3	3 credits
General Educa	ition Course	3 credits

#### 7th Semester Winter: 13-16 credits

EGR 485	Senior Egr Project 1	1 credit
Electrical Eng	gineering Electives (Select 3)	9-12 credits
General Educ	ration course	3 credits

#### 8th Semester Spring/Summer: 14-15 credits

EGR 486	Senior Egr Project 2	2 credits
Electrical Engineering Elective		3-4 credits
General Educ	cation Courses (Select 3)	9 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 <a href="https://www.gvsu.edu/pcec/advising">www.gvsu.edu/pcec/advising</a> to schedule an appointment.

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#### **General Education**

<u>Category</u>	Completed?	<u>Category</u>	Completed?	<u>Category</u>	Completed?	<u>Category</u>	Completed?
Physical		Mathematical Sciences		Global		Writing	
Sciences		(MTH 124)		Perspectives		(WRT 130 or 150)	
(CHM 115)							
Life Sciences		Social & Behavioral		U.S.		SWS #1	
		Sciences (ECO 210/211)		Diversity			
Philosophy &		Social & Behavioral		Issues		SWS #2	
Literature		Sciences					
Arts		Historical Perspectives		Issues			

- 1) Consider taking a course that fulfills the U.S. Diversity category and one non-ECO Social and Behavioral Science course
- 2) Consider taking a course that fulfills the Global Perspectives category and one Issues course.
- 3) An ethics course is required in the engineering program. It is recommended to take **ONE** of the following:
  - a. PHI 102 in the Philosophy and Literature category
  - b. BIO 328, BIO 338, COM 438, EGR 302, MGT 340, MGT 438, MKT 375, PHI 325 OR PLS 338 in the Issues category
  - c. For Honors College students, the ethics requirement is fulfilled by completion of the Honors Curriculum
- 4) ECO 210 or 211 is required for the engineering major AND fulfills one Social and Behavioral Science course.
- 5) Two Supplemental Writing Skills (SWS) courses are required for graduation. These can be fulfilled via other general education categories. *For example, EGR 302 will fulfill ONE SWS requirement, one Issues requirement AND the engineering ethics requirement*.

#### 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**