

## Bachelor of Science in Engineering (B.S.E.)

2024 - 2025 Catalog Year

# **Electrical Engineering**

## Honors College: MTH 201 Start, 5 Year Plan

Secondary Admission Required

			1st Year			
Fall			Winter		Spring/Summer	
*MTH 201: Calculus 1		4	*MTH 202: Calculus 2	4		
*EGR 100: Intro to EGR		1	*EGR 113: Intro to CAD/CAM	1	*EGR 185: First-Year EGR Design	2
*EGR 111: Intro to EGR Graphics		1	*EGR 108: Appl Program for EGR 2	2		
*EGR 104: Appl Program for EGR 1		2	HNR 153: Interdisciplinary Seq. 3	3		
HNR 151: Interdisciplinary Seq. 1		3	HNR 154: Interdisciplinary Seq. 4	3		
HNR 152: Interdisciplinary Seq. 2		3				
	Total	14	Total	13	Total	2
			2nd Year			
Fall			Winter		Spring/Summer	
*MTH 203: Calculus 3		4	*MTH 302: Linear Algebra/Diff Eq	4		
*CHM 115: Chemistry 1		4	*PHY 230: Physics 1	5		
*EGR 185: First- Year EGR Design		2	*EGR 224: Intro to Digital Systems	3		
HNR 201: Live. Learn. Lead		3	*EGR 220: EGR Measure & Data	1		
			*STA 220: Stat Modeling for EGR	2		
	Total	13	Total	15		
			3rd Year			
Fall			Winter		Spring/Summer	
*PHY 234 or 231: Physics 2		4-5	*EGR 257: Elec. Materials & Devices	4	EGR 290: Engineering Co-op 1	3
*EGR 214: Circuit Analysis 1		3	*EGR 223: Prob. & Signal Analysis	3		
*EGR 215: Circuit Analysis 1 Lab		1	*EGR 226: Microcontroller Program	3		
ECO 210 or 211: Economics		3	*EGR 2267: Microcontroller Prog. Lab	1		
*EGR 289: EGR Professionalism		1	Supplemental Writing Skills	3		
	Total	12-13	Total	14	Total	3
		4	th Year ~ Admission Required			
Fall			Winter		Spring/Summer	
EGR 314: Circuit Analysis 2		4	EGR 390: Engineering Co-op 2	3	EGR 330: Power Sys. Analysis	4
EGR 315: Electronic Circuits 1		4			EGR 343: Appl. Electromagnetics	4
EGR 326: Embedded Sys. Design		4			EGR 323: Signals & Sys. Analysis	3
					HNR 350: Integrative Seminar	3
	Total	12	Total	3	Total	14
		5	th Year ~Admission Required			
Fall			Winter		Spring/Summer	
EGR 490: Engineering Co-op 3		3	EGR 485: Senior EGR Project 1	1	EGR 486: Senior EGR Project 2	2
EE Elective		3-4	EE Elective	3-4	EE Elective	3-4
			EE Elective	3-4		
	Total	6-7	Total	7-9	Total	5-6

- This is a suggested curriculum guide that might not be applicable to every student
- Foundation courses are required for secondary admission and are designated by an asterisk (\*) on this guide
- Student must have a **minimum of 120 credits** to graduate, with **58 of the 120 credits** being from a senior level institution and the **final 30 of the 120 credits** completed at GVSU

EE Foundation Course Requirements							
WRT 150 (or WRT 130)	MTH 201	MTH 202	MTH 203				
MTH 302	PHY 230	PHY 231 or PHY 234	CHM 115				
STA 220/EGR 220	EGR 100	EGR 111	EGR 112 (or EGR 104+108)				
EGR 113	EGR 185	EGR 224	EGR 226/227				
EGR 289	EGR 223	EGR 257	EGR 214/215				

Honors Requirements				
HNR 151	HNR 152			
HNR 153	HNR 154			
HNR 300 (fulfilled by EGR 290)	HNR 201			
HNR 251 (fulfilled by EGR 100 + EGR 185)	HNR 350			
HNR 401/499 (fulfilled by EGR 485 + EGR 486)				

#### **Secondary Admission Requirements:**

Detailed application and admission requirements available at <a href="https://www.gvsu.edu/engineering/secondary-admission-to-engineering-majors-44.htm">https://www.gvsu.edu/engineering/secondary-admission-to-engineering-majors-44.htm</a>

- ✓ A GPA of 2.7 or above in Engineering Foundation courses. Foundation courses are designated by an asterisk (\*) on this guide.
- ✓ Completion of each course in the Engineering Foundation with a grade of C (2.0) or above, with no more than one repeat.
- ✓ Completion of preparation for placement in the cooperative engineering education course, EGR 289.

#### **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 290 fulfills the HNR 300 requirement.
- 3) EGR 485 fulfills the HNR 401 requirement.
- 4) EGR 486 fulfills the HNR 499 requirement.
- 5) The completion of the honors curriculum will fulfill the engineering ethics requirement.
- 6) All GVSU students must earn credit for two Supplemental Writing Skills (SWS) courses. Honors students can earn credit for one SWS course by completing HNR 154 (the winter semester of a first-year sequence) with a grade of C or better. They must earn their second SWS course credit outside of the Honors requirements.

### **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.