

# 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 185: First-Year EGR Design	2
*EGR 100: Intro to EGR	1	*EGR 113: Intro to CAD/CAM	1		
*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				
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>13</b>	<b>Total</b>	<b>2</b>
2nd Year					
Fall		Winter		Spring/Summer	
*MTH 203: Calculus 3	4	*MTH 302: Linear Algebra/Diff Eq	4		
*CHM 125 + 126: 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		
<b>Total</b>	<b>13</b>	<b>Total</b>	<b>15</b>		
3rd Year					
Fall		Winter		Spring/Summer	
*PHY 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		
<b>Total</b>	<b>12-13</b>	<b>Total</b>	<b>14</b>	<b>Total</b>	<b>3</b>
4th 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
<b>Total</b>	<b>12</b>	<b>Total</b>	<b>3</b>	<b>Total</b>	<b>14</b>
5th 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		
<b>Total</b>	<b>6-7</b>	<b>Total</b>	<b>7-9</b>	<b>Total</b>	<b>5-6</b>

- 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	CHM 125 + 126
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 <https://www.gvsu.edu/engineering/secondary-admission-to-engineering-majors-44.htm>

- ✓ 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:

1. It is strongly encouraged that students do not begin or break curriculum thread by taking courses at other institutions.
  - a. *For example:* Taking MTH 201 equivalent elsewhere, then return to Grand Valley and continuing in the math thread with MTH 202.
2. MTH 302, Linear Algebra and Differential Equations = MTH 204, Linear Algebra + MTH 304, Analysis of Differential Equations
  - a. Completing the split (2 class) version can be advantageous to students completing a math minor. See your advisor for additional information.