

Electrical Engineering

MTH 201 Start, 4 Year Plan

Secondary Admission Required

1st Year					
Fall		Winter		Spring/Summer	
*MTH 201: Calculus 1	4	*MTH 202: Calculus 2	4		
*WRT 150: Strategies in Writing	4	*PHY 230: Physics 1	5		
or WRT 120 and WRT 130		*EGR 113: Intro to CAD/CAM	1		
*EGR 100: Intro to EGR	1	*EGR 185: First-Year EGR Design	2		
*EGR 111: Intro to EGR Graphics	1	*STA 220: Stat Modeling for EGR	2		
*EGR 112: Appl Program for EGR	2	*EGR 220: EGR Measure & Data	1		
*CHM 125 + 126: Chemistry 1	4				
Total	16	Total	15		
2nd Year					
Fall		Winter		Spring/Summer	
*MTH 203: Calculus 3	4	*MTH 302: Linear Algebra/Diff Eq	4	EGR 290: Engineering Co-op 1	3
*PHY 231: Physics 2	5	*EGR 223: Prob. & Signal Analysis	3	General Education	3
*EGR 224: Intro to Digital System	3	*EGR 257: Elec. Materials & Devices	4		
*EGR 226: Microcontroller Program	3	*EGR 214: Circuit Analysis 1	3		
*EGR 227: Microcontroller Program Lab	1	*EGR 215: Circuit Analysis 1 Lab	1		
*EGR 289: EGR Professionalism	1				
Total	17	Total	15	Total	6
3rd 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	General Education	3	EGR 343: Appl. Electromagnetics	4
EGR 326: Embedded Sys. Design	4			EGR 323: Signals & Sys. Analysis	3
General Education	3			ECO 210 or 211: Economics	3
				General Education	3
Total	15	Total	6	Total	17
4th 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 Electives (select 2)	6-8	EE Elective	3-4
		General Education (select 2)	6	General Education (select 3)	9
Total	6-7	Total	13-15	Total	14-15

- 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

General Education Requirements

WRT 150: Strategies in Writing (grade of "C" or higher required) or WRT 120 and WRT 130 (grade of "C" or higher required in both)	Life Sciences (consider BIO 105)
Physical Sciences (CHM 125 + 126)	Philosophy and Literature
Arts	Mathematical Sciences (MTH 201)
2 Social Behavioral Sciences (one must be ECO 210 or 211)	Global Perspectives
Historical Analysis (consider HSC 202)	U.S. Diversity
2 Issues Courses (prerequisite: must have 55+ credits. Consider EGR 302, ART 373 or ART 394)	2 Supplemental Writing Skills Courses (prerequisite: WRT 130 or WRT 150)

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.

Major Notes:

- 1) Consider taking a course that fulfills both the U.S. Diversity category and one non-ECO Social and Behavioral Science course.
- 2) Consider taking a course that fulfills both 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. EGR 302 (Engineering Decision-Making in Society), BIO 328, BIO 338, COM 438, MGT 340, MGT 438, MKT 375, PHI 325 or PLS 338 in the Issues category
 - b. PHI 102 in the Philosophy and Literature 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 Sciences 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.
- 6) STA 215 can substitute for the STA 220 requirement.
- 7) 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.

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.