SEYMOUR AND ESTHER PADNOS COLLEGE OF ENGINEERING
GRAND VALLEY STATE UNIVERSITY

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

Electrical Engineering

MTH 201 Start, 5 Year Plan

Secondary Admission Required

2025 – 2026 Catalog Year

1st Year								
Fall			**Winter**			**Spring/Summer**		
*MTH 201: Calculus 1		4	*MTH 202: Calculus 2		4			
*WRT 150: Strategies in Writing **or** WRT 120 and WRT 130		4	*CHM 125 + 126: Chemistry 1		4			
*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	General Education		3			
General Education		3						
	Total	**15**		**Total**	**14**			
2nd Year								
Fall			**Winter**			**Spring/Summer**		
*MTH 203: Calculus 3		4	*MTH 302: Linear Algebra/Diff Eq		4			
*PHY 230: Physics 1		5	*EGR 224: Intro to Digital System		3			
*EGR 185: First-Year EGR Design		2	*EGR 226: Microcontroller Program		3			
*STA 220: Stat Modeling for EGR		2	*EGR 227: Microcontroller Progr. Lab		1			
*EGR 220: EGR Measure & Data		1	General Education		3			
	Total	**14**		**Total**	**14**			
3rd Year								
Fall			**Winter**			**Spring/Summer**		
*PHY 231: Physics 2		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	General Education		3
*EGR 215: Circuit Analysis 1 Lab		1	General Education		3			
ECO 210 or 211: Economics		3	General Education		3			
*EGR 289: EGR Professionalism		1						
	Total	**13**		**Total**	**13**		**Total**	**6**
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
						General Education		3
	Total	**12**		**Total**	**3**		**Total**	**14**
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			
			General Education (Select 2)		6			
	Total	**6-7**		**Total**	**13-15**		**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

Padnos College of Engineering Undergraduate Advising Center
Innovation Design Center, Suite 212
(616) 331-6025 or online at www.gvsu.edu/pce/advising

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) It is recommended that anyone on a 5-year EGR plan complete the EGR 104+108 stretch option in place of EGR 112. Please speak with an advisor if you have questions about which option is best for you.
2) Consider taking a course that fulfills both the U.S. Diversity category and one non-ECO Social and Behavioral Science course.
3) Consider taking a course that fulfills both the Global Perspectives category and one Issues course.
4) 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
5) ECO 210 or 211 is required for the engineering major AND fulfills one Social and Behavioral Sciences course.
6) 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***.
7) STA 215 can substitute for the STA 220 requirement.
8) 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.