

2021-22 First Year Academic Plan - Engineering (B.S.E.)

How To Use This Guide

In this guide, you will find suggested course schedules for your first year of classes. At registration we will sign up for both the Fall (August through December) and Winter (January through April) semesters.

These different first year schedules are recommended based on your math placement scores. You will notice that on the left side of every schedule the Math Placement score is indicated.

Math Placement is determined by your ACT or SAT math sub-scores that you send to Grand Valley. There are four initial placement levels. They are:

MTH 097 - MTH 097 Fulfilled - MTH 110 Fulfilled - MTH 122 & MTH 123 Fulfilled

We know that ACT or SAT scores were not required this year. For the most accurate math placement, we strongly encourage you to take the math proficiency test. It is important that you take the math proficiency test at least one week before coming to campus for your First Year Registration and Registration session.

For more information about Math Placement, please visit:

<http://www.gvsu.edu/math/mathematics-placement-11.htm>

This guide is for all majors in the School of Engineering. If you do not know which engineering major you want to study, that is okay. The first year of curriculum is the same for all engineering students and coursework variations based on major will occur in the second or third year.

Advanced Placement, International Baccalaureate, and College Level Examination Program Credits

Advanced Placement (AP), International Baccalaureate (I.B.) and College Level Exam Program (CLEP) credits can affect how a student schedules for classes or which math placement a student might receive. We would encourage you to take note of all AP, I.B., or CLEP credit you have earned so you can discuss these with an academic advisor while at Advising and Registration.

For more information regarding Credits By Exam, please visit: <https://www.gvsu.edu/cbe/>

*Please note, students can only apply 32 AP, IB and/or CLEP credits towards their degree

Secondary Admission Requirements

Admission to major standing in the School of Engineering requires an application for secondary admission. Applicants must meet the following minimum criteria to be considered:

- 1) Completion of the engineering (EGR) foundation courses with a grade of "C" or above (see catalog for required foundation courses)
- 2) GPA of 2.7 or above in EGR foundations (only one repeat per foundation course allowed)
- 3) Completion of preparation for placement in cooperative engineering education, EGR 289

Important Advising Information

An advisor will be available at your Advising and Registration session to help you understand this guide and ensure you are registering for the correct courses.

It is highly encouraged that students meet with an academic advisor early in their career at GVSU. Consider meeting with an advisor each semester, this will help ensure you stay on track with their secondary admission requirements and their general education requirements.

For your convenience, we do have advising on both campuses but can always be reached at:
101 Eberhard Center (Pew Campus) | 616.331.6025 | pcecadvising@gvsu.edu

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General Education (GE) Courses Fulfilled by Major Requirements

All majors in the School of Engineering have some general education classes built into the program.

Please review these courses before registering to avoid taking duplicate credits.

GE - Physical Sciences:	CHM 115, PHY 230
GE - Philosophy & Literature:	PHI 102 (consider SWS)
GE - Mathematical Science:	MTH 122 or higher
GE - Social & Behavioral Science:	ECO 210 or ECO 211
GE - Global Perspectives	EGR 406
GE - Issues	EGR 302, EGR 306, EGR 406

Recommended Schedule Based on Math Start

Students have the option to choose to complete alternatives to WRT 150, CHM 115, and PHY 230. Choosing to take the alternative version of ANY of these will result in a 5-year plan. These alternatives were created to help students be successful in their coursework. If you choose to opt into any of these options, please work with your academic advisor to create your recommended schedule.

WRT 150 Alternative: WRT 120 and WRT 130

CHM 115 Alternative: CHM 100 and CHM 115

PHY 230 Alternative: PHY 230A and PHY 230B

MTH 097 Start (5 year):

Fall:

MTH 097	Elementary Algebra	4 credits
WRT 150	Writing Strategies	4 credits
General Education		3 credits
General Education		<u>3 credits</u>
		14 total credits

Winter:

MTH 110	Algebra	4 credits
General Education		3 credits
General Education		3 credits
General Education		<u>3 credits</u>
		13 total credits

MTH 110 Start (5 year):

Fall:

MTH 110	Algebra	4 credits
WRT 150	Writing Strategies	4 credits
General Education		3 credits
General Education		<u>3 credits</u>
		14 total credits

Winter:

MTH 124	Pre-Calculus	5 credits
CHM 115	Principles of Chemistry	4 credits
EGR 100	Intro to EGR	1 credit
EGR 111	Intro to EGR Graphics	1 credit
EGR 113	Intro to CAD/CAM	1 credit
General Education		<u>3 credits</u>
		15 total credits

MTH 124 start (5 year):

Fall:

MTH 124	Pre-Calculus	5 credits
WRT 150	Writing Strategies	4 credits
EGR 100	Intro to EGR	1 credit
EGR 111	Intro to EGR Graphics	1 credit
EGR 124 or General Education		<u>3 credits</u>
		14 total credits

Winter:

MTH 201	Calculus 1	4 credits
CHM 115	Principles of Chemistry	4 credits
EGR 112	Intro to Programming	2 credits
EGR 113	Intro to CAD/CAM	1 credit
General Education		<u>3 credits</u>
		14 total credits

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MTH 201 start (4 year):

Fall:

MTH 201	Calculus 1	4 credits
WRT 150	Writing Strategies	4 credits
CHM 115	Principles of Chemistry	4 credits
EGR 100	Intro to EGR	1 credit
EGR 111	Intro to EGR Graphics	1 credit
EGR 112	Intro to Programming	<u>2 credits</u>
		16 total credits

Winter:

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
EGR 220	Measure/Data Analysis	1 credit
STA 220	Statistical Modeling	<u>2 credits</u>
		15 total credits

MTH 201 start (5 year):

Fall:

MTH 201	Calculus 1	4 credits
WRT 150	Writing Strategies	4 credits
EGR 100	Intro to EGR	1 credit
EGR 111	Intro to EGR Graphics	1 credit
EGR 112	Intro to Programming	2 credits
General Education Course		<u>3 credits</u>
		15 credits

Winter:

MTH 202	Calculus 2	4 credits
CHM 115	Chemistry 1	4 credits
EGR 113	Intro to CAD/CAM	1 credit
EGR 185	First Year EGR Design	2 credits
General Education Course		<u>3 credits</u>
		14 credits

MTH 202 Start (4 year):

Fall:

MTH 202	Calculus 2	4 credits
WRT 150	Writing Strategies	4 credits
CHM 115	Principles of Chemistry	4 credits
EGR 100	Intro to EGR	1 credit
EGR 111	Intro to EGR Graphics	1 credit
EGR 112	Intro to Programming	<u>2 credits</u>
		16 total credits

Winter:

MTH 203	Calculus 3	4 credits
PHY 230	Physics 1	5 credits
EGR 113	Intro to CAD/CAM	1 credit
EGR 185	First Year EGR Design	2 credits
EGR 220	Measure/Data Analysis	1 credit
STA 220	Statistical Modeling	<u>2 credits</u>
		15 total credits

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Honors College Program Plans

The Frederik Meijer Honors College curriculum is an alternative program to GVSU's standard General Education program. Students who complete the Honors College curriculum also satisfy all of their General Education requirements, including the university's Supplemental Writing Skills (SWS) requirements.

Engineering students who successfully complete their Honors College sequence will automatically fulfil their Ethics requirement for the School of Engineering and the School of Engineering's Foundation Requirement of WRT 150. In addition, engineering students participating in the Honors College will fulfill their Honors Senior Project by successfully completing their Engineering Senior Project.

Due to the structure of the Honors College Sequence and the pre-requisite classes in the Engineering Foundations courses, *students who want to complete the 4-year plan in any major of Engineering will be expected to take Spring/Summer Classes at Grand Valley State University.*

Recommended Honors College Schedules Based on Math Start

MTH 124 (5 year)

Fall:

MTH 124	Pre-Calculus	5 credits
EGR 100	Intro to EGR	1 credit
EGR 111	Intro to EGR Graphics	1 credit
HNR 151	HNR Sequence	3 credits
HNR 152	HNR Sequence	<u>3 credits</u>
		13 total credits

Winter:

MTH 201	Calculus 1	4 credits
CHM 115	Chemistry 1	4 credits
EGR 113	Intro to CAD/CAM	1 credit
HNR 153	HNR Sequence	3 credits
HNR 154	HNR Sequence	<u>3 credits</u>
		15 total credits

MTH 201 (4 year)

Note: To complete the Honors 4-year option you are committing to summer coursework at GVSU

Fall:

MTH 201	Calculus 1	4 credits
EGR 100	Intro to EGR	1 credit
EGR 111	Intro to EGR Graphics	1 credit
EGR 112	Intro to Programming	2 credits
HNR 151	HNR Sequence	3 credits
HNR 152	HNR Sequence	<u>3 credits</u>
		14 total credits

Winter:

MTH 202	Calculus 2	4 credits
PHY 230	Physics I	5 credits
EGR 113	Intro to CAD/CAM	1 credit
HNR 153	HNR Sequence	3 credits
HNR 154	HNR Sequence	<u>3 credits</u>
		16 total credits

Summer:

MTH 203	Calculus 3	4 credits
CHM 115	Chemistry 1	4 credits
EGR 185	First Year EGR Design	<u>2 credits</u>
		10 total credits

MTH 201 (5 year)

Fall:

MTH 201	Calculus 1	4 credits
EGR 100	Intro to EGR	1 credit
EGR 111	Intro to EGR Graphics	1 credit
EGR 112	Intro to Programming	2 credits
HNR 151	HNR Sequence	3 credits
HNR 152	HNR Sequence	<u>3 credits</u>
		14 total credits

Winter:

MTH 202	Calculus 2	4 credits
EGR 113	Intro to CAD/CAM	1 credit
EGR 185	First Year EGR Design	2 credits
HNR 153	HNR Sequence	3 credits
HNR 154	HNR Sequence	<u>3 credits</u>
		13 total credits

MTH 202 (4 year)

Note: To complete the Honors 4-year option you are committing to summer coursework at GVSU

Fall:

MTH 202	Calculus 2	4 credits
EGR 100	Intro to EGR	1 credit
EGR 111	Intro to EGR Graphics	1 credit
EGR 112	Intro to Programming	2 credits
HNR 151	HNR Sequence	3 credits
HNR 152	HNR Sequence	<u>3 credits</u>
		14 total credits

Winter:

EGR 220	Measure/Data Analysis	1 credit
STA 220	Statistical Modeling	2 credits
EGR 113	Intro to CAD/CAM	1 credit
PHY 230	Physics I	5 credits
HNR 153	HNR Sequence	3 credits
HNR 154	HNR Sequence	<u>3 credits</u>
		15 total credits

Summer:

MTH 203	Calculus 3	4 credits
CHM 115	Chemistry I	4 credits
EGR 185	First Year EGR Design	<u>2 credits</u>
		10 total credits