

# WFU Engineering: Advising Guide

## For Lower Division Advising

### For questions, please contact:

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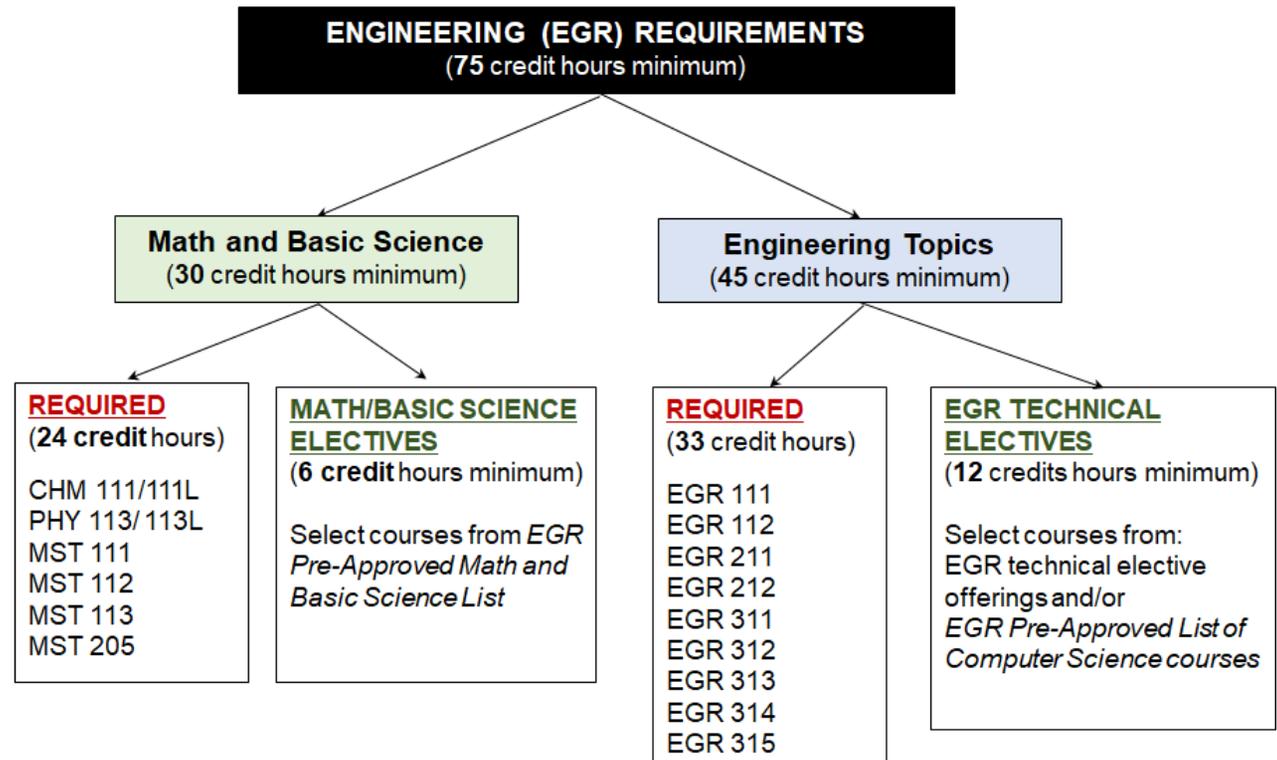
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### Background of Engineering Program:

In the nation, we are the only BS Engineering program (with undergraduate students only), grounded in the liberal arts at a research university. This unique combination not only defines who we are, but defines our unique characteristics. Our students will graduate with a BS in Engineering and have an exemplary undergraduate experience infused with the liberal arts. Whereas about 60% of the engineering curriculum represents common fundamentals that cut across engineering applications (and disciplines), 40% of the engineering curriculum can be customized to meet students' engineering interests and applications. We strive to be a leader in undergraduate education with primary motivations being: innovation in the curriculum, effective learning methods, and an authentic liberal arts curriculum to educate the whole person, featuring a project-based curriculum that emphasizes creative design and community partnerships.

### BS Engineering Degree:

The program for each student majoring in engineering is developed individually through consultation with the student's major adviser and leads to a bachelor of science in engineering. The degree is designed to meet ABET accreditation requirements: (1) A minimum of 30 semester credit hours of a combination of college-level mathematics and basic sciences with experimental experience, (2) a minimum of 45 semester credit hours of engineering topics consisting of engineering sciences and engineering design and utilizing modern engineering tools, (3) a broad education component that complements the technical content of the curriculum, and (4) a culminating design experience within the major.



To be well positioned for junior-level EGR coursework and to complete the degree in four years, students should complete the following courses **during the first two years** and should earn a minimum overall GPA of 2.0: CHM 111/111L, EGR 111, EGR 112, EGR 211, EGR 212, MST 111, MST 112, MST 113, MST 205, and PHY 113/113L.

A typical, yet customizable, **schedule** for the BS Engineering major is:

**First Year:** CHM 111/111L, PHY 113/113L, MST 111, MST 112, EGR 111, EGR 112

**Second Year:** MST 113, MST 205, EGR 211, EGR 212

**Third Year:** EGR 311, EGR 312, EGR 313, EGR technical electives, Math and/or Basic Science course

**Fourth Year:** EGR 314, EGR 315, EGR technical electives, Math and/or Basic Science course

**According to the WFU Bulletin,** “A student graduates under the requirements of the bulletin of the year in which he or she enters. However, when a student declares a major or a minor, the requirements for the major or minor that are in effect at the time of declaration will apply. Such requirements might not be congruent with those stated in a given bulletin.”

**Guide for students who want to declare EGR as major in Spring 2019 or Fall 2020 (example)**

<p><b>Fall Year 1</b>            EGR 111 or EGR 112 (Required EGR classes)            MST 111 (Required Math course for EGR degree)            CHM 111/111L (Required Basic Science course for EGR degree)</p>	<p><b>Spring Year 1</b>            EGR 111 or EGR 112 (Required EGR classes)            MST 112 (Required Math course for EGR degree)            PHY 113 or PHY 123 (Required Basic Science course for EGR degree)</p>
<p><b>Fall Year 2</b>            EGR 211 (Required EGR class, P-CHM 111/111L, PHY 113, EGR 111, EGR 112, MST 111, C-MST 112)            MST 113 (Required Math course for EGR degree)            Other Math/Basic Science Course</p>	<p><b>Spring Year 2</b>            EGR 212 (Required EGR class, P-CHM 111/111L, PHY 113, EGR 111, EGR 112, MST 111, MST 112, P or C-MST 113)            MST 205 (Required Math course for EGR degree)            Other Math/Basic Science Course</p>
<p><b>Fall Year 3</b>            EGR 311 (Required EGR class, P-EGR 211, EGR 212, MST 113, MST 205)            MST 109 (Strongly Recommended Math course for EGR degree)            EGR Technical Electives</p>	<p><b>Spring Year 3</b>            EGR 312 (Required EGR class, P-EGR 211, EGR 212, MST 113, MST 205)            EGR 313 (Required EGR class, Only offered Spring Semester @ WFU, C-EGR 311, EGR 312)            EGR Technical Electives</p>
<p><b>Fall Year 4</b>            EGR 314 (Required EGR class, Only offered Fall Semester @ WFU, P-EGR 313)            EGR Technical Electives</p>	<p><b>Spring Year 4</b>            EGR 315 (Required EGR class, Only offered Spring Semester @ WFU, P-EGR 314)            EGR Technical Electives</p>

**Notes:**

EGR 111 is not a pre-requisite for EGR 112.

PHY 123/123L may be taken in place of PHY 113/ 113L.

EGR 111, 112, 211, 212, 311, and 312 are offered both fall and spring semesters. EGR 313, 314, and 315 are sequential.