

ENGINEERING - Bachelor of Science in Engineering (BSE)

College of Technolog & Innovation - Polytechnic campus

Critical Requirements

Complete EGR 101, EGR 102, EGR 201, EGR202, MAT 170 (if needed) and Calculus I (APM 270 or MAT 270 or MAT 265) with a grade of C or better in semester taken

Semester 1 (0-16 credits)

Complete EGR 101 or EGR 102

Complete 1 Math/Science critical course (Must include MAT170, equivalent, or placement test beyond MAT170)

Semester 2 (17-32 credits)

Complete 2 additional Math/Science critical courses (Math/Science courses to date must include Calculus I (AMP 270 or MAT 270 or MAT 265)

Complete 3 additional hours of engineering courses (Must include EGR 102)

Semester 3 (33-48 credits)

Complete 2 additional Math/Science critical course (Math/Science courses to date must include Calculus II (APM 271, or MAT 271, or MAT 266) and Physics I (PHY 121)

Complete 6 additional hours of engineering critical courses (Must include EGR 201 or EGR 202)

Semester 4 (49-64 credits)

Complete 1 additional Math/Science critical course

Complete 8 additional hours of engineering critical courses (Must include EGR 202)

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Major Map

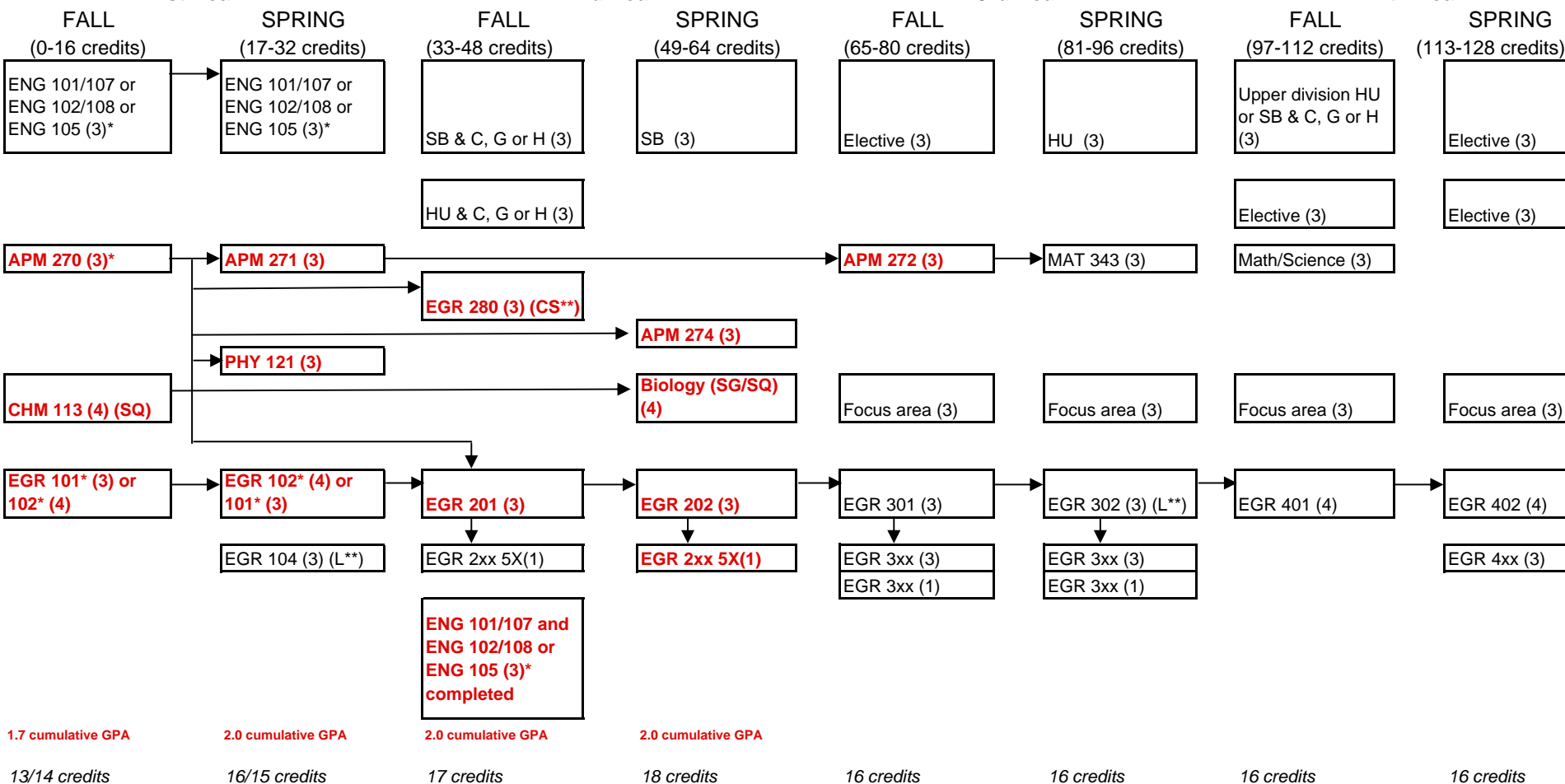
Critical requirements in **bold/red**.

1st Year

2nd Year

3rd Year

4th Year



*Minimum grade of "C" required in this course.

**Literacy (L) designation approval pending

**CS designation approval pending

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Focus Areas

Civil Infrastructure Focus Area

EGR 323 Land Development Engineering I (3)
EGR 340 – Thermal-Fluids I (3)
EGR 423 Land Development Engineering II (3)
EGR 321 Hydraulic Engineering (1)
EGR 322 Hydrology and Soils Engineering (1)
EGR 324 Storm Water Mgmt & Erosion Control (1)
EGR 326 Water and Wastewater Engineering (1)
EGR 328 Transportation Eng & Roadway Design (1)
NPS XXX GIS in Natural Resources (3)
NPS XXX Introduction to Geomatics (3)

Electrical Engineering Systems Focus Area

EGR 333 Distributed Systems (3)
EGR 339 Fabrication of Electrical Systems (3)
EGR 433 Transforms and Systems Modeling (3)
EGR 331 Electrical Implementation Technology (1)
EGR 332 Power and Heat (1)
EGR 335 Instrumentation III (1)
EGR 336 Mechatronics (1)
EGR 337 Remote Sensing and Imaging (1)
EGR 434 Digital Signal Processing: Media Standards (1)
EGR 436 Wireless Communication Principles (1)
EGR 437 Wireless Communication Protocols (1)
EGR 438 Electromagnetic Compatibility and Interference (1)

Mechanical Engineering Systems Focus Area

EGR 340 – Thermal-Fluids I (3)
EGR 341 Mechanics of Solid Materials (3)
EGR 346 Engineering Design (3)
EGR 440 Mechanical Engineering Systems (3)
EGR 341 Computer-Aided Engineering (1)
EGR 342 Testing and Failure Prevention (1)
NPS 340 Vector Mechanics and Vibration (3)

ASU 101: The ASU Experience

Required for all incoming freshmen students

In addition to the courses listed on the major map, all incoming freshmen students are required to register for ASU 101: The ASU Experience (1 credit).

About the ASU 101 Course:

Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, the importance of social embeddedness, and cultural diversity. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.

Additional information can be found on the web at www.asu.edu/ASU101.

Course Format:

The course is a one-credit, 5-week course and will be offered in a hybrid format (both face-to-face and on-line).