Approved Course Substitutions for ENGR 102a,b

Students who, prior to entering the College of Engineering, have advanced past the introductory stage of an engineering curriculum, should NOT enroll in the introductory engineering courses ENGR 102a *Introduction to Engineering Lecture Series* (1 unit) and ENGR 102b *Introduction to Engineering Design* (2 units). To satisfy the ENGR 102a + ENGR 102b requirement, such students should instead choose from one of the options listed below. Students should consult with their academic advisor BEFORE deciding on an option. General Education credits (Tier I/Tier II) may NOT be used to satisfy any part of the ENGR 102a + ENGR 102b requirement.

Option 1. An **engineering** elective that is appropriate for the student's engineering major.

Option 2. A course from TABLE O2 on the following page; a student may NOT choose a course that duplicates subject matter covered in the student's required or elective course work. For example, an ECE major may not take ECE 207 to satisfy the ENGR 102a + ENGR 102b requirement. Neither can a student take a **second** graphics/CAD course—such as AME 211, BE 220, BE 221, CE 210—and use that course work to satisfy any part of the ENGR 102a + ENGR 102b requirement.

Option 3. In the case where a student can identify no satisfactory substitute under Option 1 or Option2, a student may propose an alternative substitution for the ENGR 102a + ENGR 102b requirement. A student proposing to proceed under Option 3 MUST have PRIOR approval of the department faculty for their degree program and approval of the Associate Dean for Academic Affairs. Tier I general education courses will not be approved as a substitution for the ENGR 102a + ENGR 102b requirement.

TABLE O2. Courses that MAY be used to satisfy all or part of the ENGR 102a + ENGR 102b requirement, under Option 2 (refer to first page of this document).

AME 211	Computer-Aided Drafting and Manufacturing
AME 220:	Introduction to Aerospace Engineering
ARCE 295	Introduction to Architectural Engineering (Note: 1 unit; may be used as substitute for ENGR 102a. Student will need permission of department to enroll.)
BE 201:	Introduction to Biosystems Engineering (Note: 2 units; student must also choose a one-unit course to pair with BE 201)
BE 220:	Introduction to Computer AutoCAD
BE 221:	Introduction to Computer Aided Design
BME 214:	Introduction to Biomechanics
BME 210:	Intermediate BME Design
CHEE 201:	Elements of Chemical Engineering
ECE 175:	Computer Programming for Engineering Applications
ECE 207:	Elements of Electrical Engineering
ECE 220:	Basic Circuits
MNE 205:	Introduction to Mining Engineering
MSE 222:	Introduction to Materials Science I
SIE 250:	Introduction to Systems and Industrial Engineering
SIE 265:	Engineering Management I
SIE 270:	Mathematical Foundations of Systems and Industrial Engineering
SIE 277:	Object Oriented Modeling and Design