### 2020-2021 MECHANICAL ENGINEERING BS: 4 YR. SEQUENCE

#### FALL CLASSES

**FALL: First Semester (15 hours)**
- SYEN 1210. Intro to Systems Engineering (First Year Colloquium)
- SYEN 1207. Intro to Mechanical Engineering
- CHEM 1406. Engineering Chemistry OR CHEM 1402. General Chemistry I
- MATH 1451. Calculus
- Core: Communications – Written (RHET 1311)

**FALL: Second Semester (15 hours)**
- SYEN 2117. Fabrication Lab I OR ETME 2117. Manufacturing Processes Lab
- PHYS 2321/2121. Physics for Scientists and Engineers I and Lab
- MATH 1452. Calculus II
- Core: Communications – Written (RHET 1312)
- Core: U. S. Traditions (HIST 2311/2312 or POLS 1310)

**FALL: Third Semester (17 hours)**
- SYEN 1302. C/C++ Programming for Engineers and Scientists
- PHYS 2322/2122. Physics for Scientists and Engineers II
- MATH 2453. Calculus III
- Core: Social Science
- Core: History of Civilization (HIST 1311/1312)

**FALL: Fourth Semester (15 hours)**
- SYEN 2233. Solid Modeling and Design
- SYEN 3316. Discrete Events Systems Modeling and Simulation
- SYEN 3371. Dynamics I
- SYEN 3373. Mechanics of Materials I
- SYEN 3378. Thermodynamics I OR CNMG 3378. Engineering Thermodynamics
- MATH 3312. Linear Algebra

**FALL: Fifth Semester (17 hours)**
- SYEN 4185. Systems Engineering Capstone Design I
- SYEN 3318. Decision and Risk Analysis
- SYEN 4174. Mechanical Engineering Laboratory I
- SYEN 4379. Heat Transfer
- SYEN 4326. Measurement Techniques OR PHYS 3350. Electronics
- SYEN X3XX Major Elective
- SYEN X3XX Major Elective

**FALL: Sixth Semester (16 hours)**
- SYEN 4486. Systems Engineering Capstone Design II
- SYEN 3301. Engineering Economy OR CNMG 3302. Engineering Economy
- SYEN 3364. Intro to Control Systems Engineering OR SYEN 4335. Mechatronics I
- SYEN 4176. Mechanical Engineering Laboratory II
- SYEN X3XX Major Elective
- SYEN X3XX Major Elective

**FALL: Seventh Semester (17 hours)**

132 credit hours (130 credits hours of required courses + 2 credit hours of FYC)

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Revised 4/1/2020