## 2017-2018 MECHANICAL SYSTEMS ENGINEERING BS: 4 YR. SEQUENCE

### FALL CLASSES

**FALL: First Semester (15 hours)**

- [ ] SYEN 1210 Intro to Systems Engineering (First Year Experience)
- [ ] SYEN 1207 Intro to Mechanical Engineering
- [ ] CHEM 1406 Engineering Chemistry OR CHEM 1402 General Chemistry I
- [ ] MATH 1451 Calculus
- [ ] Core: Communications – Written (RHET 1311)

**SPRING: Second Semester (15 hours)**

- [ ] SYEN 217 Fabrication Lab I
- [ ] 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 2321/2322 or POLS 1310)

### FALL CLASSES

**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)

**SPRING: Fourth Semester (18 hours)**

- [ ] SYEN 2370 Engineering Statics
- [ ] SYEN 3314 Probability Theory and Random Variables or MATH 3350. Intro to Probability
- [ ] SYEN 3372. Engineering Materials
- [ ] MATH 3322 Introduction to Differential Equations
- [ ] Core: Fine Arts
- [ ] Core: Humanities (PHIL 2311)

### FALL CLASSES

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

- [ ] SYEN 2233. Solid Modeling and Design
- [ ] SYEN 3316 Discrete Events Systems Modeling and Simulation
- [ ] SYEN 3371 Engineering Dynamics
- [ ] SYEN 3378 Engineering Thermodynamics
- [ ] SYEN 3370. Vibrations I
- [ ] MATH 3312 Linear Algebra

**SPRING: Sixth Semester (15 hours)**

- [ ] SYEN 3320 Systems Engineering Design and Analysis
- [ ] SYEN 3312 Optimization Methods in Systems Engineering
- [ ] SYEN 4374. Fluid Mechanics
- [ ] SYEN 3379. Elements of Mechanical Design
- [ ] SYEN 3373. Introduction to the Mechanics of Materials

### FALL CLASSES

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

- [ ] SYEN 4185 Systems Engineering Capstone Design I
- [ ] SYEN 3318 Decision and Risk Analysis
- [ ] SYEN X3XX Major Elective
- [ ] SYEN 4174 Mechanical Engineering Laboratory I
- [ ] SYEN 4379 Heat Transfer
- [ ] PHYS 3350 Electronics

**SPRING: Eighth Semester (16 hours)**

- [ ] SYEN 4386 Systems Engineering Capstone Design II
- [ ] SYEN 3301 Engineering Economy
- [ ] SYEN 3364 Intro to Control Systems Engineering
- [ ] SYEN 4176. Mechanical Engineering Laboratory II
- [ ] SYEN X3XX Major Elective
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