# Mechanical Engineering: 2017 - 2018

## FIRST YEAR

### Fall (12 credit hours, 14 contact hours)
- **EGS 1006C Intro to the Engr Prof** 1(1,2)
- **ENC 1101 English Composition I** 3(3,0)
- **CHS 1440 Principals of Chem/CHM 2045C w/lab** 4(3,1)
- **MAC 2311C Calc. I w/ Analytic Geometry** 4(4,0)
  - (PR: "C" (2.0) or better in MAC 2311C, MAC 1140C)

### Spring (15 credit hours, 19 contact hours)
- **EGN 1007C Engr Concepts & Methods** 1(1,2)
- **ENC 1102 English Composition II - A2** 3(3,0)
- **SPC 1608 Oral Communications - A3** 3(3,0)
- **MAC 2312 Calculus II w/ Analytic Geometry** 4(3,3)
  - (PR: "C" (2.0) or better in MAC 2311C)
- **PHY 2046C General Physics I using Calculus - E1** 4(4,0)
  - (PR: "C" (2.0) or better in MAC 2311C)

## SECOND YEAR

### Fall (13 credit hours, 15 contact hours)
- **STA 3032 Probability & Statistics** 3(3,0)
  - (PR: "C" (2.0) or better in MAC 2312)
- **MAP 2302 Differential Equations** 3(3,0)
  - (PR: "C" (2.0) or better in MAC 2313)
- **PHY 2046C Phys for Engr II w/ lab** 4(3,3)
  - (PR: "C" (2.0) or better in MAC 2312, PHY 2048C)
- **EGN 3310 Engr Analysis Statics** 3(3,0)
  - (PR: "C" (2.0) or better in MAC 2311C, PHY 2048C, CR: MAC 2312)

### Spring (12 credit hours, 12 contact hours)
- **EGN 3321 Engineering Analysis - Dynamics** 3(3,0)
  - (PR: "C" (2.0) or better in EGN 3310, MAC 2312, CR: MAP 2302)
- **EGN 3343 Thermodynamics** 3(3,0)
- **EGN 3601 Solid Mechanics** 3(3,0)
  - (PR: "C" (2.0) or better in EGN 3310, CR: MAP 2302)
- **EGN 3701 Fluid Mechanics¹** 3(3,0)
  - (PR: "C" (2.0) or better in MAP 2302, CR: EGN 3310, EGN 3343)

### Fall Only
- **EML 3500 Design and Analysis of Machine Components** 3(3,0)
  - (PR: "C" (2.0) or better in EGN 3001)

## THIRD YEAR

### Fall (15 credit hours, 18 contact hours)
- **EML 3034C Modeling Methods in MAE** 3(3,1)
  - (PR: "C" (2.0) or better in MAP 2302, CR: EGN 3321, EAS 3933)
- **EML 3933 Career/Academic Advising I** 0(0,0)
  - (PR: "C" (2.0) or better in MAP 2302)
- **EML 3701 Fluid Mechanics¹** 3(3,0)
  - (PR: "C" (2.0) or better in MAP 2302, EGN 3321, EGN 3343)
- **EML 3303C ME Engr Measurements** 3(2,3)
  - (PR: "C" (2.0) or better in EGN 3343)
- **EML 3500 Design and Analysis of Machine Components** 3(3,0)
  - (PR: "C" (2.0) or better in EGN 3001)

### Spring (15 credit hours, 17 contact hours)
- **EML 4225 Introduction to Vibrations & Controls** 3(3,0)
- **EML 4142 Heat Transfer** 3(3,0)
  - (PR: "C" (2.0) or better in EML 3701, EML 3043C)
- **Approved Technical Elective** 3(3,0)
  - (PR: "C" (2.0) or better in EGM 3602)
- **Approved Technical Elective** 3(3,0)
  - (PR: EML 3101; CR: EML 4143)
- **Approved Technical Elective** 3(3,0)
  - (PR: EML 3303C; CR: EML 4142)
- **Option Course (Choose 1 of 5)** 3(3,0)
  - (PR: EML 3990, Department Consent)

## FOURTH YEAR

### Fall (15 credit hours, 19 contact hours)
- **EML 4501C Engineering Design I** 3(1,8)
  - (PR: EGN 3373, EML 3310C, EML 3701, EML 4142, EML 4225)
  - (CR: EML 4991)
- **EML 4991 Career/Academic Advising II** 0(0,0)
  - (PR: EML 3990, Department Consent)
  - (See List Below)
- **Approved Technical Elective** 3(3,0)
  - (See List Below)
- **Approved Technical Elective** 3(3,0)
  - (See List Below)
- **Option Course (Choose 1 of 5)** 3(3,0)
  - (See List Below)

### Spring (12 credit hours, 18 contact hours)
- **EML 4902C Engineering Design II** 3(1,6)
  - (PR: EML 4501C, EML 4991)
- **Approved Technical Elective** 3(3,0)
- **Laboratory Course (Choose 1 of 2)** 3(2,3)
  - (See List Below)
- **Option Course (Choose 1 of 5)** 3(3,0)
  - (See List Below)

## IMPORTANT NOTICES:

- *Grade of C or better is required in these courses - CHS 1440 / CHM 2045C, PHY 2048C, MAC 2311C, MAC 2312, MAC 2313, MAP 2302, EGN 3310, EGN 3343, EGN 3601, EGN 3701, EGN 3702, EML 3034C, and EML 3701*  
- Courses should be taken in the term noted or in a previous term if your schedule permits and as long as all prerequisites for that course have been met.
- Please meet with your advisor if you have any questions regarding your schedule. Do not drop any course before discussing this action with your advisor. There may be alternative options.
- If you are not ready to begin the Calculus sequence upon entry to the Mechanical Engineering curriculum it is imperative that you meet with your advisor to plan a personalized program of study. Mathematics and physics are cornerstones of a quality engineering program and it is important for your academic career that you proceed accordingly.

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### Suggested Program of Study

**1st Year**

- **Fall**: 12 credit hours, 14 contact hours
- **Spring**: 15 credit hours, 19 contact hours

**2nd Year**

- **Fall**: 13 credit hours, 15 contact hours
- **Spring**: 12 credit hours, 12 contact hours

**3rd Year**

- **Fall**: 15 credit hours, 18 contact hours
- **Spring**: 15 credit hours, 17 contact hours

**4th Year**

- **Fall**: 15 credit hours, 19 contact hours
- **Spring**: 12 credit hours, 18 contact hours

### Course Selections

- **ALL Mechanical Students Will Select 2 of 5 Courses (6 Credit Hours)**:
  - EML 4143: Heat Transfer II 3(3,0)
  - EML 4313 Intermediate System Dynamics & Controls 3(3,0)
  - EML 4703: Fluid Mechanics II 3(3,0)
  - EML 4902C Engineering Design II 3(1,6)

- **ALL Mechanical Students Will Select 1 of 2 Laboratory Courses (3 Credit Hours)**:
  - EML 4301C Mechanical Systems Lab 3(2,3)
  - EML 4306C Energy Systems Lab 3(2,3)

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Revised: 3/14/2017