Department of Mechanical Aerospace Engineering  
Suggested Program of Study  

FIRST YEAR

Fall (12 credit hours, 14 contact hours)
- EGN 1006 Intro to the Engr Prof 1(1,2)
- ENC 1101 English Composition I 3(3,0)
- *CHS 1440 Chem Engr/CHM 2045 w/lab 4(3,1)
  (PR: MAC 2311)
- *MAC 2311 Calc. I 4(4,0)

Spring (15 credit hours, 19 contact hours)
- EGN 1007 Engr Concepts & Methods 1(1,2)
- ENC 1102 English Composition II 3(3,0)
- *MAC 2312 Calc. II 4(4,0)
- *PHY 2048C Physics for Engineers I w/lab 4(3,3)
- SPC 1608 Oral Communications 3(3,0)

Summer (10 credit hours, 10 contact hours)
- *MAC 2313 Calc. III 4(4,0)
- EGN 3365 Struc & Prop of Mats. 3(3,0)

SECOND YEAR

Fall (13 credit hours, 15 contact hours)
- STA 3032 Probability & Statistics 3(3,0)
  (PR: MAC 2312)
- *MAP 2302 Differential Equations 3(3,0)
  (PR: MAC 2313)
- PHY 2049C Phys for Engr II w/lab 4(3,3)
  (PR: MAC 2312, PHY 2048C)
- EGN 3310 Engr Analysis Statics 3(3,0)
  (PR: MAC 2311, PHY 2048C, CR: MAC 2312)

Spring (12 credit hours, 12 contact hours)
- EML 3217 Engineering Mechanics Dynamics 3(3,0)
  (PR: EGN 3310, MAC 2313 CR: MAP 2302)
- EGN 3343 Thermodynamics 3(3,0)
  (CR: EML 3217, MAP 2302)
- EGM 3601 Solid Mechanics† 3(3,0)
  (PR: EGN 3310, CR: MAP 2302)
- EML 4301C Mechanical Systems Lab 3(3,0)
  (PR: EML 4142)

Summer (9 credit hours, 9 contact hours)
- ECO 2013 or ECO 2023 Economics I or II 3(3,0)
- Cultural & History Foundations 3(3,0)
- Cultural & History Foundations 3(3,0)

THIRD YEAR

Fall (15 credit hours, 17 contact hours)
- EML 3034C Mod Met in MAE† 3(3,0)
  (PR: MAP 2302, CR: EML 3217, EML 3990)
- EML 3990 Career/Academic Advising I 0(0,0)
  (PR: MAP 2302)
- EML 3701 Fluid Mechanics† 3(3,0)
  (PR: MAP 2302, EML 3217, EGN 3343)
- EML 3303C ME Engr Analysis Statics 3(2,3)
  (PR: EGN 3343, CR: EGM 3601)
- EML 3500 Machine Design 3(3,0)
  (PR: EGM 3601)
- Science Foundation 3(3,0)

Spring (12 credit hours, 17 contact hours)
- EML 4225 Introduction to Vibrations & Controls 3(3,0)
  (PR: EML 3217, EGM 3601, EML 3034C, EGN 3373)
- EML 4142 Heat Transfer 3(3,0)
  (PR: EML 3701, EML 3034C)
- Approved Technical Elective 3(3,0)
- Approved Technical Elective 3(3,0)
- Cultural & History Foundations 3(3,0)

FALL ONLY
- EML 4991 Career/Academic Advising I 3(3,0)
  (PR: MAP 2302, CR: EML 3217, EML 3990)
- SPC 1608 Oral Communications 3(3,0)
- Science Foundation 3(3,0)

IMPORTANT NOTICES:
* Grade of C or better is required in these courses.
† Grade of C or better is required in MAC 2311, MAC 2312, MAC 2313 and PHY 2048C

BOLDED COURSES should be taken in the term noted or long as all prerequisites for that course have been met.

Non-bolded course may be taken at any time as long as all prerequisites for that course have been met. Caution must be taken to insure that you take courses in a proper sequence regarding prerequisites.

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 that you proceed accordingly

IMPORTANT NOTICES:

SECOND YEAR

Fall Only
- EML 3101: Thermodynamics of Mechanical Systems 3(3,0)
  (PR: EGN 3343) Spring Only
- EML 4501C Engineering Design I 3(1,6)
  (PR: EML 3303C, EML 3701, EML 4142; CR: EML 4991)
- EML 4991 Career/Academic Advising II 0(0,0)
  (PR: EML 3990, Department Consent)
- Approved Technical Elective 3(3,0)
- Approved Technical Elective 3(3,0)
- Approved Technical Elective 3(3,0)
- Option Course (Choose 1 of 5) 3(3,0)
  (See List Below)

Fall Only
- EML 4502C Engineering Design II 3(1,6)
  (PR: EML 4501C, EML 4991)
- Approved Technical Elective 3(3,0)
- Laboratory Course (Choose 1 of 2) 3(3,0)
  (See List Below)
- Option Course (Choose 1 of 5) 3(3,0)
  (See List Below)

Fall Only
- EML 3101: Thermodynamics of Mechanical Systems 3(3,0)
  (PR: EGN 3343) Spring Only
- EML 4501C Engineering Design I 3(1,6)
  (PR: EML 3303C, EML 3701, EML 4142; CR: EML 4991)
- EML 4991 Career/Academic Advising II 0(0,0)
  (PR: EML 3990, Department Consent)
- Approved Technical Elective 3(3,0)
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- Approved Technical Elective 3(3,0)
- Option Course (Choose 1 of 5) 3(3,0)
  (See List Below)

SECOND YEAR

Fall Only
- EML 4501C Engineering Design I 3(1,6)
  (PR: EML 3303C, EML 3701, EML 4142; CR: EML 4991)
- EML 4991 Career/Academic Advising II 0(0,0)
  (PR: EML 3990, Department Consent)
- Approved Technical Elective 3(3,0)
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- Approved Technical Elective 3(3,0)
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Fall Only
- EML 4502C Engineering Design II 3(1,6)
  (PR: EML 4501C, EML 4991)
- Approved Technical Elective 3(3,0)
- Laboratory Course (Choose 1 of 2) 3(3,0)
  (See List Below)
- Option Course (Choose 1 of 5) 3(3,0)
  (See List Below)

ALL MECHANICAL STUDENTS WILL SELECT 2 OF 5 COURSES (6 CREDIT HOURS):
- EML 3101: Thermodynamics of Mechanical Systems 3(3,0)
- EML 4501C Engineering Design I 3(1,6)
- EML 4502C Engineering Design II 3(1,6)
- EML 4991 Career/Academic Advising II 0(0,0)
- Option Course (Choose 1 of 5) 3(3,0)
  (See List Below)

ALL MECHANICAL STUDENTS WILL SELECT 1 OF 2 LABORATORY COURSES (3 CREDIT HOURS):
- EML 4301C Mechanical Systems Lab 3(2,3)
  (PR: EML 3303C, EGM 3601, CR: EML 4225) Spring Only
- EML 4306C Energy Systems Lab 3(1,3)
  (PR: EML 3303C, CR: EML 4142) Spring Only

Revised: 2/28/2014