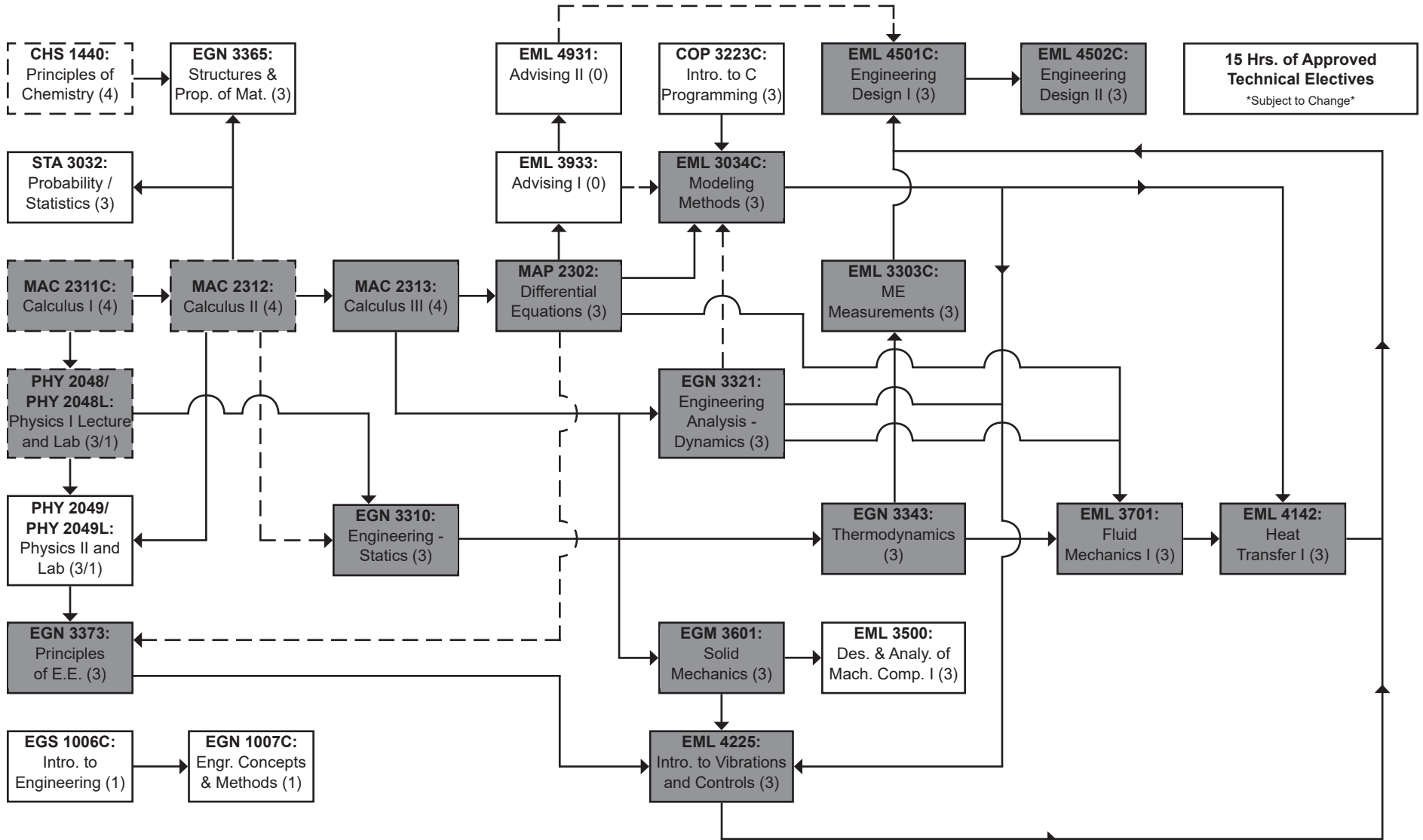


MECHANICAL ENGINEERING FLOWCHART: 2022 - 2023



Select 1 of 2 Laboratories

EML 4306C: Energy Systems Lab (3)	EML 4301C: Mechanical Systems Lab (3)
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Select 2 of 5 Advanced Courses

EML 3101: Thermodynamics of Mechanical Systems (3)	EML 4504: Des. & Analysis of Machine Comp. II (3)	EML 4703: Fluid Mechanics II (3)	EML 4143: Heat Transfer II (3)	EML 4313: Intermediate System Dynamics and Controls (3)
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Co-Requisite: - - - ->
Pre-Requisite: ———>

Pending Requirements

Critical Path Courses

Department of Mechanical and Aerospace Engineering

Suggested Program of Study Mechanical Engineering: 2022 - 2023

FIRST YEAR

Fall (12 credit hours, 16 contact hours) ENC 1101 English Composition I – GEP 1 3(3,0) *MAC 2311C Calc. I w/ Analytic Geometry – GEP 7 4(3,2) <i>(PR: "C" (2.0) or better in MAC 1114C, MAC 1140C)</i> Pick One - *CHS 1440 Principals of Chemistry <i>or</i> *CHM 2045C Chemistry Fundamentals I – GEP 11 4(3,1) *EGS 1006C Intro to the Engr Prof 1(1,2)	Spring (15 credit hours, 20 contact hours) ENC 1102 English Composition II – GEP 2 3(3,0) SPC 1608 Oral Communications – GEP 3 3(3,0) *EGN 1007C Engr Concepts & Methods 1(1,2) *PHY 2048C (or PHY 2048 & PHY 2048L) General Physics Using Calc I – GEP 11 4(3,3) <i>(PR: "C" (2.0) or better in MAC 2311C)</i> *MAC 2312 Calculus II w/ Analytic Geometry 4(4,0) <i>(PR: "C" (2.0) or better in MAC 2311C)</i>	Summer (10 credit hours, 11 contact hours) *MAC 2313 Calc. III w/ Analytic Geometry 4(4,0) <i>(PR: "C" (2.0) or better in MAC 2312)</i> *EGN 3310 Engr Analysis Statics 3(3,0) <i>(PR: "C" (2.0) or better in MAC 2311C, PHY 2048C (or PHY 2048 & PHY 2048L), CR: MAC 2312)</i> *COP 3223C Intro to Programming with C 3(3,1) <i>(PR: "C" (2.0) or better in COP 2500C or Appropriate score on the UCF CS Placement Exam)</i>
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SECOND YEAR

Fall (13 credit hours, 16 contact hours) *EGN 3321 Engineering Analysis - Dynamics 3(3,0) <i>(PR: "C" (2.0) or better in MAC 2313, EGN 3310)</i> *MAP 2302 Differential Equations 3(3,0) <i>(PR: "C" (2.0) or better in MAC 2313)</i> *PHY 2049C (or PHY 2049 & PHY 2049L) General Physics Using Calc II 4(3,3) <i>(PR: "C" (2.0) or better in PHY 2048C (or PHY 2048 & PHY 2048L), MAC 2312)</i> *EGN 3365 Structure & Properties of Materials 3(3,0) <i>(PR: "C" (2.0) or better in CHS 1440 or CHM 2045C, MAC 2312)</i>	Spring (12 credit hours, 12 contact hours) *EGN 3373 Principles of Electrical Engr 3(3,0) <i>(PR: PHY 2049C (or PHY 2049 & PHY 2049L); CR: MAP 2302)</i> *EGN 3343 Thermodynamics 3(3,0) <i>(PR: "C" (2.0) or better in MAC 2313, EGN 3310)</i> *EGM 3601 Solid Mechanics 3(3,0) <i>(PR: "C" (2.0) or better in MAC 2311C, MAC 2312, MAC 2313, PHY 2048C (or PHY 2048 & PHY 2048L), EGN 3310)</i> Historical Foundation – GEP 4 3(3,0)	Summer (9 credit hours, 9 contact hours) *STA 3032 Prob. & Statistics for Engineers – C2 3(3,0) <i>(PR: "C" (2.0) or better in MAC 2312)</i> Cultural Foundation – GEP 5 3(3,0) Social Foundation – GEP 9 3(3,0)
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THIRD YEAR

Fall (15 credit hours, 19 contact hours) EML 3933 Career/Academic Advising I 0(0,0) <i>(PR: "C" (2.0) or better in MAP 2302)</i> *EML 3034C Modeling Methods in MAE 3(3,1) <i>(PR: "C" (2.0) or better in MAC 2311C, MAC 2312, MAC 2313, MAP 2302, PHY 2048C (or PHY 2048 & PHY 2048L), COP 3223C; CR: EGN 3321, EML 3933)</i> *EML 3701 Fluid Mechanics 3(3,0) <i>(PR: "C" (2.0) or better in MAC 2311C, MAC 2312, MAC 2313, MAP 2302, PHY 2048C (or PHY 2048 & PHY 2048L), EGN 3321, EGN 3343)</i> *EML 3303C Mechanical Engr Measurements 3(2,3) <i>(PR: "C" (2.0) or better in EGN 3343)</i> *EML 3500 Design & Analysis of Machine Components 3(3,0) <i>(PR: "C" (2.0) or better in EGM 3601)</i> Life Sciences Foundation – GEP 12 3(3,0)	Spring (15 credit hours, 15 contact hours) *EML 4142 Heat Transfer 3(3,0) <i>(PR: "C" (2.0) or better in EML 3701, EML 3034C)</i> *EML 4225 Introduction to Vibrations & Controls 3(3,0) <i>(PR: "C" (2.0) or better in EGN 3321, EGM 3601, EML 3034C, EGN 3373)</i> *Approved Technical Elective 3(3,0) *Approved Technical Elective 3(3,0) Social Foundation – GEP 10 3(3,0)	
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FOURTH YEAR

Fall (15 credit hours, 19 contact hours) EML 4931 Career/Academic Advising II 0(0,0) <i>(PR: EML 3933, Department Consent)</i> *EML 4501C Mechanical Design I 3(2,4) <i>(PR: "C" (2.0) or better in EGN 3373, EML 3303C, EML 3701, EML 4142, EML 4225 and Department Consent; CR: EML 4931)</i> *Approved Technical Elective 3(3,0) *Approved Technical Elective 3(3,0) *Option Course (Choose 1 of 5, See List Below) 3(3,0) Cultural Or Historical Foundation – GEP 6 3(3,0)	Spring (12 credit hours, 19 contact hours) *EML 4502C Engineering Design II 3(2,4) <i>(PR: EML 4931 and "C" (2.0) or better in EML 4501C)</i> *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)	
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IMPORTANT NOTICES:

***Grade of "C" (2.0) or better is required in these courses.**

Must complete Lecture and Lab components of Physics courses with a "C" (2.0) or better:

- PHY 2048C or (PHY 2048 & PHY 2048L)
- PHY 2049C or (PHY 2049 & PHY 2049L)

Courses should be taken in the noted term 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.

ALL Mechanical Students Will Select 2 of 5 Courses (6 Credit Hours):

EML 4143 Heat Transfer II 3(3,0) <i>(PR: "C" (2.0) or better in EML 4142) Fall Only</i>	EML 3101 Thermodynamics of Mech Systems 3(3,0) <i>(PR: "C" (2.0) or better in EGN 3343) Spring Only</i>	
EML 4313 Inter Systems Dynamics & Controls 3(3,0) <i>(PR: "C" (2.0) or better in MAP 2302, EGN 3321, EGN 3373, EML 4225) Fall Only</i>	EML 4504 Design & Analysis of Mach Comp II 3(3,0) <i>(PR: "C" (2.0) or better in EML 3500) Spring Only</i>	
EML 4703 Fluid Mechanics II 3(3,0) <i>(PR: "C" (2.0) or better in EML 3701) Fall Only</i>		

ALL Mechanical Students Will Select 1 of 2 Laboratory Courses (3 Credit Hours):

EML 4301C Mechanical Systems Lab 3(2,3) <i>(PR: "C" (2.0) or better in EML 3303C, EGM 3601; CR: EML 4225)</i>	EML 4306C Energy Systems Lab 3(2,3) <i>(PR: "C" (2.0) or better in EML 3303C; CR: EML 4142)</i>
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**UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE
ADVISING CONTACTS**

Office of Academic Affairs:

General Information, General Education, Pending Majors, etc.

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Civil, Environmental, & Construction Engineering

Mary Smith	ENG 2 211	407-823-2841	Mary.Smith2@ucf.edu
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Ms. Bonnie Esparza	HEC 345	407-823-2341	Bonnie.Esparza@ucf.edu

Electrical & Computer Engineering

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Industrial Engineering

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Photonics Science and Engineering

Mr. Mike McKee	CREOL 108	407-823-6376	Mike.McKee@ucf.edu
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Materials Science and Engineering

Ms. Pamela Ross	ENGR 207	407-823-3806	Pamela.Ross@ucf.edu
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Forms, Policies, & Procedures:

Check out our resources at <https://advising.cecs.ucf.edu/>

*Computer Science majors will be assigned a faculty advisor when they pass the foundation exam.



Computer Recommendations for incoming students in 2022-2023

The College of Engineering and Computer Science **does not require** students to have their own personal computer. Students will have access to computers through their department, college, and university here on campus. However, we do feel that having a personal computer can be a great advantage to some of our students. Students that do plan on having their own computer are encouraged to follow the recommendations of the university set forth below.

These recommendations have been developed to achieve the following minimum standards for personal computing at UCF:

A desktop or notebook computer with sufficient resources to run current software products with very good performance.

PC Minimum Requirements:

Windows 10
Intel i5 Processor
8GB Ram
Integrated video Card
512GB HDD or SSD storage

Engineering Specifications:

Intel i7 Processor
8GB RAM
2GB dedicated graphics card
1 TB HDD or SSD storage
15" Display

*Windows may be required for some applications

Budget

Windows 10
i5Processor
8GB RAM
Integrated Graphics
512GB HDD or SDD

Power User

Windows 10
i7Processor
8GB RAM
16GB Graphics

Mac

OSX High Sierra
i7Processor
16GB RAM
2GB Dedicated Graphics

The UCF Technology Product Center can provide recommendations in addition to offering many computers and accessories for purchase, or consulting regarding any of the above hardware or software products. Complete "Network Ready" PC and Macintosh configurations, including pre-loaded application software and network adapters are available.

The UCF Technology Product Center can be found in the Technology Commons, by email tpc@ucf.edu or by phone at (407) 823-5603.