Department of Mechanical Aerospace Engineering
Suggested Program of Study
Mechanical Engineering: 2015 - 2016

FIRST YEAR

Fall (12 credit hours, 14 contact hours)		Spring (15 credit hours, 19 contact hours)		Summer (10 credit hours, 10 contact hours)	
EGS 1006C Intro to the Engr Prof	1(1,2)	EGN 1007C Engr Concepts & Methods	1(1,2)	*MAC 2313 Calc. III w/ Analytic Geometry	4(4,0)
ENC 1101 English Composition I	3(3,0)	ENC 1102 English Composition II	3(3,0)	EGN 3365 Struct & Prop of Matls.	3(3,0)
*CHS 1440 Principals of Chem/CHM 2045C w/lab	4(3,1)	*MAC 2312 Calc. II w/ Analytic Geometry	4(4,0)	*(PR: CHS 1440 or CHM 2045C & MAC 2312)*	
*MAC 2311C Calc. I w/ Analytic Geometry	4(4,0)	*PHY 2048C Physics for Engineers I w/lab	4(3,3)	Social Foundations	3(3,0)
		SPC 1608 Oral Communications	3(3,0)		

SECOND YEAR

Fall (13 credit hours, 15 contact hours)		Spring (12 credit hours, 12 contact hours)		Summer (9 credit hours, 9 contact hours)	
STA 3032 Probability & Statistics	3(3,0)	EML 3217 Engineering Mechanics - Dynamics	3(3,0)	ECO 2013 or ECO 2023 Economics I or II	3(3,0)
(PR :MAC 2312)		*(PR: EGN 3310, MAC 2313 CR: MAP 2302)*		Cultural & History Foundations	3(3,0)
*MAP 2302 Differential Equations	3(3,0)	EGN 3343 Thermodynamics	3(3,0)	Cultural & History Foundations	3(3,0)
(PR: MAC 2313)		*(CR: EML 3217, MAP 2302)*			
PHY 2049C Phys for Engr II w/ lab	4(3,3)	EGM 3601 Solid Mechanics[1]	3(3,0)		
(PR: MAC 2312, PHY 2048C)		*(PR: EGN 3310, CR: MAP 2302)*			
EGN 3310 Engr Analysis Statics	3(3,0)	EGN 3373 Principles of Electrical Engr	3(3,0)		
(PR: MAC 2311, PHY 2048C, CR: MAC 2312)		*(PR: PHY 2049C; CR: MAP 2302)*			

[1] Grade of C or better is required in Calculus, MAC 2311, MAC 2

THIRD YEAR

Fall (15 credit hours, 18 contact hours)		Spring (15 credit hours, 17 contact hours)	
EML 3034C Modeling Methods in MAE[1]	3(3,1)	EML 4225 Introduction to Vibrations & Controls	3(3,0)
(PR: MAP 2302, CR: EML 3217, EML 3990)		*(PR: EML 3217, EGM 3601, EML 3034C, EGN 3373)*	
EML 3990 Career/Academic Advising I	0(0,0)	EML 4142 Heat Transfer	3(3,0)
(PR: MAP 2302)		*(PR: EML 3701, EML 3034C)*	
EML 3701 Fluid Mechanics[1]	3(3,0)	Approved Technical Elective	3(3,0)
(PR: MAP 2302, EML 3217, EGN 3343)		Approved Technical Elective	3(3,0)
EML 3303C ME Engr Measurements	3(2,3)	Cultural & History Foundations	3(3,0)
(PR: EGN 3343, CR: EGM 3601)			
EML 3500 Design and Analysis of Machine Components	3(3,0)		
(PR: EGM 3601)			
Science Foundation	3(3,0)		

FOURTH YEAR

Fall (15 credit hours, 19 contact hours)		Spring (12 credit hours, 18 contact hours)	
EML 4501C Engineering Design I	3(1,6)	EML 4502C Engineering Design II	3(1,6)
(PR: EGN 3373, EML 3303C, EML 3701, EML 4142, EML 4225)		*(PR: EML 4501C, EML 4991)*	
(CR: EML 4991)	0(0,0)	Approved Technical Elective	3(3,0)
EML 4991 Career/Academic Advising II		Laboratory Course (Choose 1 of 2)	3(2,3)
(PR: EML 3990, Department Consent)	3(3,0)	*(See List Below)*	
Approved Technical Elective	3(3,0)	Option Course (Choose 1 of 5)	3(3,0)
Approved Technical Elective	3(3,0)	*(See List Below)*	
Approved Technical Elective	3(3,0)		
Option Course (Choose 1 of 5)			
(See List Below)			

IMPORTANT NOTICES:

* Grade of C or better is required in these courses.

[1] Grade of C or better is required in MAC 2311C, MAC 2312 MAC 2313, PHY 2048C, and CHS 1440/ CHM 2045

Bolded 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.

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.

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

EML 4143: Heat Transfer II	3(3,0)	OR	EML 3101: Thermodynamics of Mechanical Systems	3(3,0)	OR
(PR: EML 4142) Fall Only			*(PR: EGN 3343)* Spring Only		
EML 4313 Intermediate System Dynamics & Controls	3(3,0)	OR	EML 4504: Design and Analysis of Machine Components II	3(3,0)	
(PR: EML 3217, EML 4225) Fall Only			*(PR: EML 3500; CR: EML 4535C)* Spring Only		
EML 4703: Fluid Mechanics II	3(3,0)	OR			
(PR: EML 3701) Fall Only					

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

EML 4301C Mechanical Systems Lab	3(2,3)	OR	EML 4306C Energy Systems Lab	3(2,3)
(PR: EML 3303C, EGM 3601 ; CR: EML 4225)			*(PR: EML 3303C; CR: EML 4142)*	
Spring Only			Spring Only	

Revised: 3/27/2015