

DUAL Aerospace-Mechanical Engineering Degree Curriculum ~ (Catalog Year: 2016-2018)

Bachelors of Science in Mechanical Engineering & Aerospace Engineering

Although this is a suggested outline - All courses listed below are **REQUIRED** for this degree. Refer to the Undergraduate Catalog for verification

Student's Name: _____ UFID: _____ Today's Date: _____

You MUST complete all 8 tracking courses before you can **OFFICIAL** apply for the Dual Degree Program. This is a sample curriculum and schedule that illustrates the dual ME-ASE Bachelor of Science degree with a minimum number of additional hours (9 hours in this case for a 137 hour total program). Other combinations of elective courses are also possible, but may require more than 9 additional hours.

①The tracking courses for MAE are: MAC2311, MAC2312, MAC2313, MAP2302, PHY2048, PHY2049, CHM2045 & Sci Elec: (CHM2046, BSC2010, PHY3101 or AST3018/3019) ②All undergraduate students (except those transferring to UF with an A.A. degree from a Florida State/Community College or University) are required to satisfy: 15cr-Humanities/Social Science(H/SS); 3cr-Diversity(D); 3cr-International(N). {Some (D/N) courses will double count with H/SS courses, check the undergraduate catalog for further explanation, under "General Education Requirement"}. ③Writing Requirement-24,000 words(WR). ④Summer Requirement-9cr {Must be taken at any State of Florida University not State/Community Colleges}. ⑤*asterisk-(tracking course) or #hashtag-(MAE core) ~ (requires a Grade of "C" or better).

✓	Course Prefix and Number	Cr	Course Title	Projected Offer	Pre-Requisites
Semester 1 (15cr)					
	CHM 2045/2095 <i>*(Tracking course "C" required)</i>	3	General Chemistry 1 / Chemistry for Engineers 1 (GE - P)	F S Su	Chemistry Readiness Assessment
	CHM 2045L	1	General Chemistry Lab 1 (GE - P)	F S Su	
	MAC 2311 <i>*(Tracking course "C" required)</i>	4	Analytical Geometry & Calculus 1 (GE - M)	F S Su	Mathematics Placement Exam (ALEKS)
	GE - C	3	Composition - [WR-6000]	F S Su	ACT/SAT scores do not exempt this requirement
	IUF 1000	3	What Is The Good Life (GE - H)	F S Su	All incoming freshmen w/out an AA degree
	EML 2920	1	Departmental & Professional Orientation	F S	
Semester 2 (17cr)					
	MAC 2312 <i>*(Tracking course "C" required)</i>	4	Analytical Geometry & Calculus 2 (GE - M)	F S Su	MAC2311
	PHY 2048 <i>*(Tracking course "C" required)</i>	3	Physics with Calculus 1 (GE - P)	F S Su	MAC2311
	PHY 2048L/2053L	1	Physics Lab 1 (GE - P)	F S Su	
	EML 2023	3	Computer Aided Graphics & Design (Laptop required)	F S Su	
	ENC 3246	3	Professional Communication for Engineers - (GE - C) [WR-6000]	F S Su	ENC1101 or test score equivalency
	Science Elective (Pick 1) <i>*(Tracking course "C" required)</i>	3	☐CHM2046/2096 ☐BSC2010 ☐PHY3101 ☐AST3018/3019	F S Su	Check catalog for Pre-requisites
Semester 3 (16cr)					
	MAC 2313 <i>*(Tracking course "C" required)</i>	4	Analytical Geometry & Calculus 3 (GE - M)	F S Su	MAC2312
	PHY 2049 <i>*(Tracking course "C" required)</i>	3	Physics with Calculus 2 (GE - P)	F S Su	MAC2312 & PHY2048
	PHY 2049L/2054L	1	Physics Lab 2 (GE - P)	F S Su	
	COP 2271 (Lab is optional)	2	Computer Programming for Engineers Matlab (no exceptions)	F S Su	MAC2312
	EAS 2011	3	Introduction to Aerospace Engineering (Simultaneously counts as a Technical Elective in BSME)	F S	PHY2048 & MAC2311
	EGM 2511 <i>*(MAE core - "C" required)</i>	3	Engineering Mechanics - Statics	F S Su	PHY2048
Semester 4 (17cr)					
	MAP 2302 <i>*(Tracking course "C" required)</i>	3	Elementary Differential Equations	F S Su	MAC2312
	EML 2322L	2	Design and Manufacturing Laboratory	F S Su	EML2023 & ENC3246 & ASE/ME majors only
	EMA 3010	3	Materials	F S Su	CHM2045
	EGM 3344 <i>*(MAE core - "C" required)</i>	3	Intro to Numerical Methods of Eng. Analysis	F S	MAC2313 & COP2271-Matlab
	EGM 3520 <i>*(MAE core - "C" required)</i>	3	Mechanics of Materials	F S Su	EGM2511 & MAC2313
	EML 3100 <i>*(MAE core - "C" required)</i>	3	Thermodynamics	F S Su	CHM2045 & MAC2313 & PHY2048

Semester 5 (18cr)				
GE – SS	3	Social & Behavioral Sciences	F S Su	
EAS 4101	3	Aerodynamics <i>(Simultaneously counts for EGN3353C in BSME)</i>	F S	COP2271-Matlab & (EAS2011 or EGN3353C) & EML3100, MAC2313 & MAP2302
EEL 3003	3	Elements of Electrical Engineering <i>(can sub-EEL 3111C)</i>	F S Su	MAC2313 & PHY2049
EGM 3401 #(MAE core - "C" required)	3	Engineering Mechanics - Dynamics	F S	EGM2511 & MAC2313
EML 3301C	3	Mechanics of Materials Laboratory - [WR-6000]	F S Su	EGM3344 & EGM3520 & ENC3246
MAP 4305/MAP5304	3	Diff Equations for Engineers and Physical Scientists	F S Su	MAP2302 & MAS3111 or MAS4105 or EGM3344-(C or better required)
Semester 6 (15cr)				
EAS 4132/EML 5714	3	Compressible Flow <i>(Simultaneously counts for Specialization Elective in BSME)</i>	F S	EAS4101 or EGN3353C
EAS 4510	3	Astrodynamics <i>(Simultaneously counts as a Technical Elective in BSME)</i>	S	EGM3401 & (EGM4313 or MAP4305 or MAP5304)
EAS4810C	3	Aerospace Sciences Lab & Design	F S Su	(EAS4101 or EGN3353C) & EML3100 & EML3301C
EML 4312	3	Control of Mechanical Eng. Systems	F S	EGM3401 & EGM3344 & MAP2302
GE – SS	3	Social and Behavioral Sciences	F S Su	
Semester 7 (15cr)				
GE – H	3	Humanities	F S Su	
EAS 4200C	3	Aerospace Structures <i>(Simultaneously counts as a Technical Elective in BSME)</i>	F	EGM3520
EAS 4400	3	Stability and Control of Aircraft	F S	EAS4101 & EML4312
EML 4220	3	Vibrations <i>(Simultaneously counts as a ASE Elective in BSASE)</i>	F S	EGM3401 & EGM3520 & EGM3344 & MAP2302
EML 3005	3	Mechanical Engineering Design 1 <i>(Simultaneously counts as a Technical Elective in BSASE)</i>	F S	COP2271-Matlab & EGM3520 & EML2322L
Semester 8 (15cr)				
GE – H or GE – SS	3	Humanities or Social & Behavioral Sciences	F S Su	
EAS 4300	3	Aerospace Propulsion	S	EAS4101
EAS 4700 or EAS 4710	3	Aerospace Design 1 Aerospace Design 2 <i>(Simultaneously counts for EML4501 in BSME)</i>	F S	EAS4510 & EML4312 EAS4101 & EAS4400
EML 4140	3	Heat Transfer <i>(Simultaneously counts as a ASE Elective in BSASE)</i>	F S	(EAS4101 or EGN3353C) & MAP2302
EML 4507	3	Finite Element Analysis & Design <i>(Simultaneously counts as a Technical Elective in BSASE)</i>	F S	COP2271-Matlab & EGM3520 & EGM3344
Semester 9 (15cr)				
EML 4147C	3	Thermal Systems Design & Lab	F S Su	EML3100 & EML3301C & EML4140
EML 4321	3	Manufacturing Engineering	F S	EMA3010, EML2322L & EML3005
EML 4314C	3	Dynamics & Controls System Design Lab	F S	EML3301C & EML4312
EML 4502	3	Mechanical Engineering Design 3	F S	EML4501 or EAS4700 or EAS4710

Total Hours 143

Revised 9/12/2018