DUAL Aerospace & Mechanical Engineering Degree Curriculum ~ (Catalog Year: 2019)
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 & EML2023-(2.8 Overall GPA required for critical tracking courses).** 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 **(Tracking course "**C**" required)*	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 **(Tracking course "**C**" required)*	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
	IDS 1161	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 **(Tracking course "**C**" required)*	4	Analytical Geometry & Calculus 2 *(GE – M)*	F S Su	MAC2311
	PHY 2048 **(Tracking course "**C**" required)*	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 **(Tracking course "**C**" required)*	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 ENC1102
	Science Elective *(Pick 1)*	3	❑CHM2046/2096 ❑BSC2010 ❑PHY3101 ❑AST3018/3019	F S Su	*Check catalog for Pre-requisites*
Semester 3 (16cr)					
	MAC 2313 **(Tracking course "**C**" required)*	4	Analytical Geometry & Calculus 3 *(GE – M)*	F S Su	MAC2312
	PHY 2049 **(Tracking course "**C**" required)*	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 *#(MAE core - "**C**" required)*	3	Engineering Mechanics - Statics	F S Su	PHY2048
Semester 4 (17cr)					
	MAP 2302 **(Tracking course "**C**" required)*	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 *#(MAE core - "**C**" required)*	3	Intro to Numerical Methods of Eng. Analysis	F S	MAC2313 & COP2271-Matlab
	EGM 3520 *#(MAE core - "**C**" required)*	3	Mechanics of Materials	F S Su	EGM2511 & MAC2313
	EML 3100 *#(MAE core - "**C**" required)*	3	Thermodynamics	F S Su	CHM2045 & MAC2313 & PHY2048

Semester 5	**(18cr)**				
	GE – SS	3	Social & Behavioral Sciences	F S Su	
	EAS 4101	3	Aerodynamics *(Simultaneously counts for EGN3353C in BSME)*	F S	COP2271-Matlab & (EAS2011 or EGN3353C) & EML3100, MAC2313 & MAP2302
	EEL 3003	3	Elements of Electrical Engineering *(can sub-EEL 3111C)*	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 *(Simultaneously counts for Specialization Elective in BSME)*	F S	EAS4101 or EGN3353C
	EAS 4510	3	Astrodynamics *(Simultaneously counts as a Technical Elective in BSME)*	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 *(Simultaneously counts as a Technical Elective in BSME)*	F	EGM3520
	EAS 4400	3	Stability and Control of Aircraft	F S	EAS4101 & EML4312
	EML 4220	3	Vibrations *(Simultaneously counts as a ASE Elective in BSASE)*	F S	EGM3401 & EGM3520 & EGM3344 & MAP2302
	EML 3005	3	Mechanical Engineering Design 1 *(Simultaneously counts as a Technical Elective in BSASE)*	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	F S	EAS4101
	EAS 4700 or EAS 4710	3	Aerospace Design 1 Aerospace Design 2 *(Simultaneously counts for EML4501 in BSME)*	F S	EAS4510 & EML4312 EAS4101 & EAS4400
	EML 4140	3	Heat Transfer *(Simultaneously counts as a ASE Elective in BSASE)*	F S	(EAS4101 or EGN3353C) & MAP2302
	EML 4507	3	Finite Element Analysis & Design *(Simultaneously counts as a Technical Elective in BSASE)*	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 8/19/2019*