Mechanical Engineering Curriculum Sheet (2026—2027)

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Important notes: Your degree audit and the **model semester plan** for your catalog year (Here) take precedence over this curriculum sheet. Each course line below is required and must be satisfied independently. A single course cannot be used to satisfy two lines.

✓	Course	Cr	Course Title and Info	+ When	Prerequisites (Required)
Semester 1					**(15-16 credits)**
	* CHM 2045 *or* CHM 2095	3	General Chemistry 1 *or* Chemistry for Engineers 1 *(GE – P)*	F S Su	CHM1025, MAC1147 *or* MAC1140 *plus* MAC1114 *or* higher MAC course (C or higher in all of these courses)
	§ CHM 2045L	1	General Chemistry Lab 1 *(GE – P)*	F S Su	(same as above)
	* MAC 2311	4	Analytical Geometry & Calculus 1 *(GE – M)*	F S Su	Mathematics Placement Exam (ALEKS)
	§ ENC 1101 *or* ENC 1102	3	Composition *(GE – C)* - [WR-6000]	F S Su	
	§ Quest 1 Course	3	Quest 1: Humanities *(GE – H)*	F S Su	*https://catalog.ufl.edu/course-search/ w/ Quest1 + HUM*
	EML 2920 *or* EGN 2020C	1,2	Dept & Professional Orientation *or* Engineering Design & Society	F S	
Semester 2					**(17 credits)**
	* MAC 2312	4	Analytical Geometry & Calculus 2 *(GE – M)*	F S Su	MAC2311
	* PHY 2048	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 2256 *or* ‡ ENC 3246	3	Writing in the Disciplines – **Eng. Focused** *(GE–C) or* Prof. Comm. for Engineers (see ‡) [WR-6000]	F S Su	ENC1101 or ENC1102
	COP 2273	3	Python Programming for Engineers	F S Su	MAC2311
Semester 3					**(18 credits)**
	§ Quest 2	3	Quest 2: Gen Ed Biological Sciences *(GE-B)* or Physical Sciences *(GE-P) only*	F S Su	*https://catalog.ufl.edu/course-search/ w/ Quest2 + (PHYSSCI or BIOSCI)*
	* MAC 2313	4	Analytical Geometry & Calculus 3 *(GE – M)*	F S Su	MAC2312
	* PHY 2049	3	Physics with Calculus 2 *(GE – P)* (PHY 2049L is not required)	F S Su	MAC2312 & PHY2048
	MAS 3114	3	Computational Linear Algebra	F S Su	MAC2312 & COP2273
	# EGM 2511	3	Engineering Mechanics - Statics	F S Su	PHY2048
	EML 2322L	2	Design & Manufacturing Lab	F S Su	EML2023, AE/ME majors only
Semester 4					**(18 credits)**
	§ State Core GE – H	3	State Core Gen Ed Humanities (*list in Degree Audit*)	F S Su	See also: Here
	EMA 3010	3	Materials	F S Su	CHM2045
	* MAP 2302	3	Elementary Differential Equations	F S Su	MAC2312
	# EGM 3344	3	Numerical Methods of Eng. Analysis	F S	MAC2313 & COP2273 & MAS3114
	# EGM 3520	3	Mechanics of Materials	F S Su	EGM2511 & MAC2313
	# EML 3100	3	Thermodynamics	F S Su	CHM2045, MAC2313, PHY2048
Semester 5					**(15 credits)**
	§ State Core GE – SS	3	State Core Gen Ed Social & Behavioral (*list is in Degree Audit*)	F S Su	See also: Here
	EEL 3003 or EEL 3111C	3	Elements Electrical Engineering *or* Circuits 1	F S Su	MAC2313 & PHY2049
	# EGM 3401	3	Engineering Mechanics - Dynamics	F S	EGM2511 & MAC2313
	EGN 3353C	3	Fluid Mechanics	F S	EGM2511, MAC2313, EML3100
	EML 3301C	3	Mechanics of Materials Lab - [WR-6000]	F S	EMA3010 & EGM3520 & MAS3114 & COP2273 & (ENC2256 or ENC3246)

Semester 6					**(15 credits)**
	§ GE – SS	3	Gen. Ed. Social & Behavioral Sciences – [WR-6000]	F S Su	*https://catalog.ufl.edu/course-search/ w/ SOCSCI + 6000*
	EML 3005	3	Mechanical Engineering Design 1	F S	COP2273 & MAS3114 & EML2322L & EGM3520 & EGM3401
	EML 4140	3	Heat Transfer	F S	EGN3353C & MAP2302
	EML 4220	3	Vibrations	F S	EGM3401, EGM3520, EGM3344, MAP2302
	EML 4312	3	Control of Dynamic Systems	F S	EGM3401, EGM3344, MAP2302
Semester 7					**(15 credits)**
	EML 4147C	3	Thermal Systems Design & Lab	F S	EML3100, EML3301C, EML4140
	Choose one:	3	Capstone Design Course		
	EML 4501		Mechanical Eng Design 2	F S	EML4140 & EML3005 & EML4312
	EGN 4951		IPPD 1 (*must also do IPPD 2*)	F	(same as above)
	EAS 4700		Aero Design 1 (e.g. dual ME/AE majors)	F	EAS4510, EML4312, EGM3520
	EAS 4710		Aero Design 2 (e.g. dual ME/AE majors)	S	EAS4400, EGM3520
	EML 4507	3	Finite Element Analysis & Design	F S	MAP2302, EGM3520, EGM3344
	¶ Tech Elective 1 of 3	3	See list of Technical Electives: Here	-	*See list for prereqs and restrictions.*
	¶ Tech Elective 2 of 3	3	See list of Technical Electives: Here	-	*See list for prereqs and restrictions.*
Semester 8					**(15 credits)**
	EML 4321	3	Manufacturing Engineering	F S	EMA3010, EML2322L & EML3005
	EML 4314C	3	Dynamics & Controls System Design Lab	F S	EML3301C, EML4312
	Choose one:	3	Realization Course		
	EML 4502C		Mechanical Eng Design 3	F S Su	EML4501 *or* EAS 4700 *or* EAS 4710
	EML 4535C		Automation in Production Engineering	TBD	EML4501
	EML 4914		Undergraduate Realization Thesis	-	EML4501 *or* EAS 4700 *or* EAS 4710
	EML 4842C		Autonomous Vehicles	TBD	EML4501 *or* EAS 4700 *or* EAS 4710
	EGN 4952		IPPD 2 (*must have done IPPD 1*)	S	EGN4951
	¶ Specialization Elective	3	See list of Specialization Electives: Here	-	*See list for prereqs and restrictions.*
	¶ Tech Elective 3 of 3	3	See list of Technical Electives: Here	-	*See list for prereqs and restrictions.*
ME Program Total					**(128 credits)**

+: **Projected Terms**. Terms are projected by best effort and could change. Review updated Schedule of Courses once published.

*: **Critical Tracking (CT)**. Eight MAE CT courses function as a barometer of future success in the major. Students must earn a C or better within two attempts of each CT course, including drops, by end of CT semester five, typically Fall of the Junior year. Students must earn the required grade to use a course as a prerequisite. Students who do not pass a CT course upon first attempt are placed on probation. Per MAE policy, a second attempt cannot be transient. Note: *Change of Major is Necessary Under Any of the Following Circumstances*--second unsuccessful CT attempt; repeat of three CT courses; unsuccessful completion of all eight CT courses within first five CT semesters; completion of all eight CT courses below a 2.80 GPA. Changing majors within the first five semesters is feasible and offers the best opportunity for success in an alternate major. Change of major after CT5 is rare. Additional notes: **Grade forgiveness** occurs in the calculation of CT GPA (only GPA with this feature). Students may use "pass by exam" for a first course as a prerequisite; however, once the second course is passed, credit cannot be gained for retaking the first course in an effort to boost CT GPA.

#: **Five MAE Core Courses**. Each MAE core course requires a C or better, which is needed before the course can serve as a prerequisite. Unlimited attempts of core courses (or any non-critical tracking course) are permitted; however, students must maintain at least a 2.00 GPA.

§: **General Education Courses**. Incoming students w/out an articulated AA degree must satisfy UF Gen. Ed. requirements. Each course requires a C or better. Additionally, students must complete the three-hour GE-N "International" requirement, which must be earned concurrently with another area. For example, a course designated as Humanities/International can count toward both the Humanities and International requirements. Go: https://catalog.ufl.edu/course-search/; select desired Gen. Ed. category in the dropdown menu to find courses; select desired Quest level if appropriate.

‡: **Technical Writing.** Students who satisfy the 6-credit GE-C requirement beforehand should take ENC 3246.

WR: **Writing Requirement.** The above plan satisfies completion of a total of 24,000 words. Writing course grades assigned by the instructor have two components: the writing component and a course grade. To receive writing credit, students must satisfactorily complete the writing component and earn a C or better. It is possible to earn a C in a class and fail to meet the Writing Requirement, so students should review their degree audit to verify receipt of credit for the writing component.

¶: **Technical Electives and Specialization Elective**. Electives allow pursuit of a desired technical affinity. An acceptable specialization elective is generally a MAE 4000-level course or above with an EML, EGM, or EAS prefix. Pay attention to projected semester of course offerings, e.g., specialization electives are typically **not** offered in Summer. Technical electives offer more options. See the two lists: Here.

ver: 08/20/26