# Aerospace Engineering Curriculum Sheet (2025—2026)

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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 (no overrides) |
|---|---|---|---|---|---|
| **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 | 3 | Writing in the Disciplines - Engineering Focused *(GE–C)* [WR-6000] | F S Su | ENC1101 or ENC1102 |
| | COP 2273 | 3 | Python Programming for Engineers | F S Su | MAC2311 |
| **Semester 3** | | | | | **(16 credits)** |
| | EAS 2011 | 3 | Introduction to Aerospace Engineering | F S | PHY2048 |
| | * MAC 2313 | 4 | Analytical Geometry & Calculus 3 *(GE – M)* | F S Su | MAC2312 |
| | * PHY 2049 | 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** | F S Su | MAC2312 |
| | # EGM 2511 | 3 | Engineering Mechanics - Statics | F S Su | PHY2048 |
| **Semester 4** | | | | | **(17 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)* |
| | EML 2322L | 2 | Design & Manufacturing Lab | F S Su | EML2023, AE/ME majors only |
| | * MAP 2302 | 3 | Elementary Differential Equations | F S Su | MAC2312 |
| | # EGM 3344 | 3 | Intro to Numerical Methods of Eng. Analysis | F S | MAC2313 & COP2271-**Matlab** |
| | # EGM 3520 | 3 | Mechanics of Materials | F S Su | EGM2511 & MAC2313 |
| | # EML 3100 | 3 | Thermodynamics | F S Su | CHM2045, MAC2313, PHY2048 |
| **Semester 5** | | | | | **(18 credits)** |
| | EMA 3010 | 3 | Materials | F S Su | CHM2045 |
| | 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 |
| | EAS 4101 | 3 | Aerodynamics | F S | EAS2011 or EGN3353C, COP2271, MAC2313, EML3100, MAP2302 |
| | MAP 4305 or MAP 5304 | 3 | Differential Equations for Engineers | F S Su | MAP2302, EGM3344 |
| | § GE – SS | 3 | Gen. Ed. Social & Behavioral Sciences – [WR-6000] | F S Su | *https://catalog.ufl.edu/course-search/ w/ SOCSCI + 6000* |

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| **Semester 6** | | | | | **(15 credits)** |
| | EML 3301C | 3 | Mechanics of Materials Lab - [WR-6000] | F S | EMA3010, COP2271, EGM3520, ENC2256 |
| | EAS 4132 *or* EML 5714 | 3 | Compressible Flow | F S | EAS4101 or EGN3353C |
| | EAS 4510 | 3 | Astrodynamics | F S | EGM3401, (MAP4305 or MAP5304) |
| | EML 4312 | 3 | Control of Dynamic Systems | F S | EGM3401, EGM3344, MAP2302 |
| | Choose one: | 3 | Aerospace Elective 1 of 2 | | Varies |
| | EAS 4240 | | Aerospace Composites | TBD | EGM3520 |
| | EAS 4412 | | Dynamics and Control of Space Vehicles | TBD | MAP4305 or MAP5304 |
| | EML 4140 | | Heat Transfer | F S | EGN3353C & MAP2302 |
| | EML 4220 | | Vibrations | F S | EGM3401, EGM3520, EGM3344, MAP2302 |
| | EML 4507 | | Finite Element Analysis & Design | F S | MAP2302, EGM3520, EGM3344 |
| | EML 4722 | | Computational Fluid Dynamics | TBD | EAS4101 or EGN3353C |
| | *Or* | | Any graduate-level course taught by MAE | - | Varies |
| **Semester 7** | | | | | **(15 credits)** |
| | EAS 4200 | 3 | Aerospace Structures | TBD | EGM3520 |
| | EAS 4400 | 3 | Stability and Control of Aircraft | F S | EAS4101, EML4312 |
| | EAS 4810C | 3 | Aerospace Sciences Lab and Design | F S | EAS4101, EAS4132, EML3301C |
| | § State Core GE – H | 3 | State Core Gen Ed Humanities (*list in Degree Audit*) | F S Su | See also: Here |
| | Choose one in above list | 3 | Aerospace Elective 2 of 2 | | Varies |
| **Semester 8** | | | | | **(15 credits)** |
| | EAS 4300 | 3 | Aerospace Propulsion | F S | EAS4132 |
| | § State Core GE – SS | 3 | State Core Gen Ed Social & Behavioral (*list is in Degree Audit*) | F S Su | See also: Here |
| | Choose one: | 3 | Capstone Design Course | | |
| | EAS 4700 | | Aero Design 1 | F | EAS4510, EML4312, EGM3520 |
| | EAS 4710 | | Aero Design 2 | S | EAS4400, EAS4101, EGM3520 |
| | ¶ Tech Elective 1 of 2 | 3 | See list of Technical Electives: Here | - | *See list for prereqs and restrictions.* |
| | ¶ Tech Elective 2 of 2 | 3 | See list of Technical Electives: Here | - | *See list for prereqs and restrictions.* |
| **AE 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.

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**. Electives allow pursuit of a desired technical affinity. See the list of courses: Here.

ver: 08/20/25