

Major Checklist: Aerospace Science and Engineering

*** [Please reference the UC Davis Catalog for the most recent course information](#) ***

Pre-requisite courses are italicized and notated in "[]". A (C-) or better is required.

Upper Division Composition requires a (C-) grade or better or passing score on [UCDE](#).

University Requirements & General Education (52 units needed): Arts & Humanities (must have 12 units with a max of 20 units), Science & Engineering (20 units): **Completed with LD Engineering Core Requirements**, Social Sciences (must have 12 units with a max of 20 units): **ENG 190 (3 units) will count here.** Contact the [Engineering Undergraduate Office \(EUO\)](#) if you have additional questions.

Lower Division Engineering Core Requirements – Mathematics/Physical Science (47 units)

__MAT 021A – Calculus [Satisfactory score on [math placement exam](#)]

__MAT 021B - Calculus [MAT 21A/AH OR MAT 17A (B or Better)]

__MAT 021C - Calculus [MAT 21B/BH]

__MAT 021D - Vector Analysis [MAT 21C/CH]

__MAT 022A - Linear Algebra [MAT 21C/CH, ENG 6, EME 5, ECH 60/MAT 22A*]

__MAT 022B - Differential Equations [MAT 22A]

__CHE 002A (lab) - General Chemistry [Qualifying score on [Chemistry Placement Exam](#)]

__CHE 002B (lab) - General Chemistry [CHE 2A]

__PHY 009A (lab) - Classical Physics [MAT 21B]

__PHY 009B (lab) - Classical Physics [PHY 9A, MAT 21C, MAT 21D*]

__PHY 009C (lab) - Classical Physics [PHY 9B, MAT 21D, MAT 22A*]

Communications Requirement:

CMN 001 OR ENG 003/Y

Lower Division Engineering Core Requirements – (19 units)

__ENG 004 (lab) - Engineering Graphics in Design

__ENG 006 - Engr Prob Solving [MAT 21A & MAT 21B*]

__ENG 017/V - Circuits I [MAT 21C]

__ENG 035 - Statics [PHY 009A; MAT 021D*]

__ENG 45/Y (lab) - Prop of Materials [MAT 21C, CHE 2B and PHY 9A/9HA]

Upper Division Engineering Core Requirements – (42 units)

__ENG 100 (lab) – Electr Circuits & Systems [ENG 17]

__ENG 102 - Dynamics [ENG 35 and MAT 22B]

__ENG 103 - Fluid Mech [ENG 35, MAT 22B & PHY 9B]

__ENG 104 - Mech of Materials [ENG 35 & MAT 22B]

__ENG 105 - Thermodynamics [MAT 22B & PHY 9B]

__ENG 190 - Prof Responsibilities [JR/SR Standing]

__EME 106 - Thermo-Fluid Dyn [ENG 103 & 105]

__EME 108 (lab) - Measurement Sys [ENG 100 & 102]

__EME 109 (lab) – Exp Meth Therm Fluids [EME 106]

__EME 165 – Fund. of Heat Transfer [ENG 6/ECS 30, ENG 103 & 105]

__EME 172 - Auto Cntrl of Eng. Syst [ENG 100 & 102]

Aerospace Science and Engineering Core Requirements

*Electives **DO NOT** double count.*

__ (Fall Qtr) EAE 127 – App Aircraft Aerodyn [EME 106]

__ (Winter Qtr) EAE 129 - Stability & Control of Aerospace Vehicles [ENG 102]

__ (Fall Qtr) EAE 133 - Finite Element Methods in Structure [ENG 104]

__ (Winter Qtr) EAE 135 - Aerospace Structures [ENG 104, EAE 127]

__ (Winter Qtr) EAE 138 - Aircraft Prop [EME 106]

__(Select 1) Aero Elect [4 units], __(Select 1) Astro Elective [4 units] **AND** __(Select 1) Technical Elect [4 units] – See Options in UC Davis Catalog

__Applied MAT Elect. [4 units] – See Options in UC Davis Catalog

SENIOR DESIGN CAPSTONE: EAE 130A/B Aircraft Performance & Design [EAE 127, EAE 129*] **OR** EAE 143AB Space Vehicle & Mission Design [EAE 140, EAE 142]

* Can be concurrent