The Aerospace Science and Engineering (BS) program is accredited by the Engineering Accreditation Commission of ABET.

UCDAVIS MECHANICAL AND AEROSPACE ENGINEERING

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*]*

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*