# Aerospace Engineering Curriculum Flowchart

## First Year

### Fall
- MATH 1A 4
- MAT SCI 45 + 45L 4
- SCIENCE ELEC 3 TO 5
- AERO ENG 1 1
- R&C A 4 OR 5

### Spring
- MATH 1B 4
- PHYSICS 7A 4
- ENGIN 7 OR COMPSCI 61A* 4
- AERO ENG 2 1
- R&C B 4

## Second Year

### Fall
- MATH 53 4
- PHYSICS 7B 4
- MEC ENG 103 3
- AERO ENG 10 4
- H/SS 3 OR 4

### Spring
- MATH 54 OR PHYSICS 89 (4)
- MEC ENG C85 3
- STAT & DS 3 OR 4
- H/SS UPPER DIV 3 OR 4

## Third Year

### Fall
- CONTROLS 2,3 3 OR 4
- DYNAMICS 2,4 3
- MEC ENG 106 3
- TECH ELECS 3 OR 4
- H/SS UPPER DIV 3 OR 4

### Spring
- ELECTRONICS 4
- STAT & DS 3 OR 4
- TECH ELECS 3 OR 4
- FREE ELECS 2 TO 4

## Fourth Year

### Fall
- MEC ENG 103 4
- MEC ENG 163 3

### Spring
- AERO ENG 100 4
- FREE ELECS 2 TO 4

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### Programming Notes (Note 1)

Students who choose to take COMPSCI 61A can take it in the fall and MATSCI 45 in the spring. Please note that COMPSCI 61A is an impacted course and AE students are not likely to get in.

### Technical Electives

Please see this page for details: [https://engineering.berkeley.edu/students/undergraduate-guide/degree-requirements/major-programs/aerospace-engineering/#f5](https://engineering.berkeley.edu/students/undergraduate-guide/degree-requirements/major-programs/aerospace-engineering/#f5)

### Science Elective Course Options

Choose one of the following: ASTRON 7A, C10; BIOLOGY 1A+1AL, 1B; CHEM 1A/1AL, 1B, 3A/3AL, 3B/3BL, 4A, 4B; MCELLBI 32; PHYSICS 7C. Some of these courses require prerequisites and would therefore be more appropriately taken in a later semester.

1. Students who plan to take MECENG 40 for their Thermodynamics requirement in sophomore year will need to take CHEM 1A/1AL to fulfill their Science Elective, because CHEM 1A/1AL are prerequisites for MECENG 40.

### Fall Only Courses (Note 2)

2. Please note that these are fall semester-only courses: ENGIN 40, MEC ENG 132, EECS 149, MEC ENG 163, and CIV ENG 126.

### Controls Course Options (Note 3)

- ELENG C128/MEC ENG C134
- MEC ENG 132

### Dynamics Course Options (Note 4)

- CIV ENG 126
- MEC ENG 104

### Electronics Options (Note 5)

- EECS 149
- ELENG 120
- MEC ENG 100

### Statistics & Data Science Options (Note 6)

- CIV ENG 93
- ENGIN 178
- DATA/COMPSCI/STAT C100*

The enrollment system enforces **prerequisites for DATA/COMPSCI/STAT C100**; therefore, students who have not completed C8 will be unable to enroll in the course.
## COURSE PREREQUISITES

**COURSE SEQUENCING MATTERS!**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO ENG 10</td>
<td>MATH 1A; MATH 1B; PHYSICS 7A; and COMPSCI 61A or ENGIN 7; Co-Requisite: MATH 53.</td>
</tr>
<tr>
<td>AERO ENG 100</td>
<td>TBA</td>
</tr>
<tr>
<td>CIV ENG 93</td>
<td>ENGIN 7 or COMPSCI C8 / INFO C8 / STAT C8. Student should consult instructor prior to enrolling</td>
</tr>
<tr>
<td>CIV ENG 126</td>
<td>MATH 1A or MATH 1B; MATH 53, PHYSICS 7A; PHYSICS 7B; or consent of instructor</td>
</tr>
<tr>
<td>COMPSCI 61A</td>
<td>MATH 1A (may be taken concurrently); programming exp. equivalent to that gained from a score of 3 or above on the AP CS A exam</td>
</tr>
<tr>
<td>DATA/CS/STAT C100</td>
<td>COMPSCI C8 / DATA C8 / INFO C8 / STAT C8 with a C- or better, or Pass; and COMPSCI 61A, COMPSCI/DATA C88C, or ENGIN 7 with a C- or better, or Pass; Corequisite: MATH 54, 56 or EECS 16A (C- or better, or Pass, required if completed prior to Data C100)</td>
</tr>
<tr>
<td>EE C128/ME C134</td>
<td>EECS 16A or MEC ENG 100; MEC ENG 132 or EL ENG 120</td>
</tr>
<tr>
<td>EECS 149</td>
<td>COMPSCI 61C; COMPSCI 70; EECS 16A; and EECS 16B; or permission of instructor</td>
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<tr>
<td>ELENG 120</td>
<td>EECS 16A and EECS 16B; or MEC ENG 100 (which covers the similar topics to 16A and 16B)</td>
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<tr>
<td>ENGIN 7</td>
<td>MATH 1B (may be taken concurrently)</td>
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<tr>
<td>ENGIN 40</td>
<td>PHYSICS 7B and MATH 54. CHEM 1B recommended</td>
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<tr>
<td>ENGIN 178</td>
<td>ENGIN 7, MATH 1A, MATH 1B MATH 53, and MATH 54 (may be taken concurrently)</td>
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<tr>
<td>MAT SCI 45</td>
<td>Students should have completed high school AP or honors chemistry and physics</td>
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<tr>
<td>MATH 1A</td>
<td>3.5 years of high school math, including trigonometry and analytic geometry. Students with HS exam credits (such as AP credit) should consider choosing a course more advanced than 1A</td>
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<tr>
<td>MATH 1B</td>
<td>MATH 1A or MATH N1A</td>
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<tr>
<td>MATH 53</td>
<td>MATH 1B or MATH N1B</td>
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<tr>
<td>MATH 54</td>
<td>MATH 1B, MATH N1B, MATH 10B, or MATH N10B</td>
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<tr>
<td>MEC ENG 40</td>
<td>CHEM 1A, ENGIN 7, MATH 1B, and PHYSICS 7B</td>
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<tr>
<td>MEC ENG C85</td>
<td>MATH 53; MATH 54 (may be taken concurrently); Physics 7A</td>
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<tr>
<td>MEC ENG 100</td>
<td>ENGIN 7, COMPSCI 10, COMPSCI 61A, COMPSCI C8, or equivalent background in computer programing; MATH 1A; PHYSICS 7A.</td>
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<tr>
<td>MEC ENG 103</td>
<td>MEC ENG 40; MEC ENG C85 / CIV ENG C30; MEC ENG 100; MEC ENG 106 (can be taken concurrently), and MEC ENG 109 (can be taken concurrently)</td>
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<tr>
<td>MEC ENG 104</td>
<td>MEC ENG C85, and one of ENGIN 7 or COMPSCI 61A</td>
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<tr>
<td>MEC ENG 106</td>
<td>MEC ENG C85 / CIV ENG C30 and MEC ENG 104 (104 may be taken concurrently)</td>
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<tr>
<td>MEC ENG 132</td>
<td>MATH 53, MATH 54, PHYSICS 7A, and PHYSICS 7B</td>
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<tr>
<td>MEC ENG 163</td>
<td>MEC ENG 40, MEC ENG 106</td>
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<tr>
<td>PHYSICS 7A</td>
<td>High school physics; MATH 1A; MATH 1B (which may be taken concurrently)</td>
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<tr>
<td>PHYSICS 7B</td>
<td>PHYSICS 7A; MATH 1A; MATH 1B; MATH 53 (may be taken concurrently)</td>
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<tr>
<td>PHYSICS 89</td>
<td>MATH 53; PHYSICS 5A or PHYSICS 7A (can be taken concurrently); or instructor’s consent</td>
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Please note that the most current prerequisite information can always be found in the UC Berkeley Course Catalog: https://guide.berkeley.edu/courses/.