AEROSPACE ENGINEERING UNDERGRADUATE PATHWAY

Saint Louis University’s aerospace engineering undergraduate pathway program will prepare students to enter the next semester of a bachelor’s degree program in aerospace engineering in Parks College of Aviation, Engineering, and Technology. ([https://www.slu.edu/parks/](https://www.slu.edu/parks/))

Curriculum Overview
The International Year One curriculum consists of English, mathematics and general elective courses. Other courses require permission.

Program Entry Requirements
One-Semester (Accelerated) Pathway
- Secondary/high school degree or equivalent
- 2.50 minimum GPA on 4.0 scale
- Language requirement:
  - TOEFL iBT 75 or
  - IELTS 6.0 or
  - PTEA 50 or
  - Duolingo 100 or
- Completion of Two-Semester (Standard) Pathway

Two-Semester (Standard) Pathway
- Secondary/high school degree or equivalent
- 2.50 minimum GPA on 4.0 scale
- Language requirement:
  - TOEFL iBT 60 or
  - IELTS 5.5 or
  - PTEA 44 or
  - Duolingo 90 or
- Completion of Academic English Level 4 or
- Completion of Three-Semester (Comprehensive) Pathway

Three-Semester (Comprehensive) Pathway
- Secondary/high school degree or equivalent
- 2.50 minimum GPA on 4.0 scale
- Language requirement:
  - TOEFL iBT 50 or
  - IELTS 5.0 or
  - PTEA 38 or
  - Duolingo 75 or
- Completion of Academic English Level 3

Learning Outcomes
1. Students will be able to execute a variety of verbal tasks in academic settings using English that can be understood by those unaccustomed to non-native speakers.
2. Students will be able to execute a variety of written tasks in academic settings using English that can be understood by those unaccustomed to non-native writers.

3. Students will be able to apply a process-driven approach to completing verbal and written academic assignments in multiple disciplines and modes.
4. Students will be able to deploy reflective and self-regulated learning strategies.

Requirements
One-Semester (Accelerated) Pathway

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAP 1200</td>
<td>Academic Writing and Editing Skills II</td>
<td>3</td>
</tr>
<tr>
<td>EAP 1220</td>
<td>Academic Reading and Study Skills II</td>
<td>3</td>
</tr>
<tr>
<td>EAP 1010</td>
<td>Pathway Recitation Lab I</td>
<td>1</td>
</tr>
<tr>
<td>Mathematics Requirements (1 course) (p. 2)</td>
<td>3-4</td>
<td></td>
</tr>
</tbody>
</table>

*Students are placed in the appropriate mathematics class based on an online placement test. MATH 1520 is recommended.*

General Elective Requirement (1 course) (p. 2) 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIV 1010</td>
<td>Enhancing First-Year Success</td>
<td>1</td>
</tr>
<tr>
<td>AENG 1001</td>
<td>Introduction to Aerospace &amp; Mechanical Engineering</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 15-16

Two-Semester (Standard) Pathway

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAP 1000</td>
<td>Academic Writing and Editing Skills I</td>
<td>3</td>
</tr>
<tr>
<td>EAP 1010</td>
<td>Pathway Recitation Lab I</td>
<td>1</td>
</tr>
<tr>
<td>EAP 1020</td>
<td>Academic Reading and Study Skills I</td>
<td>3</td>
</tr>
<tr>
<td>EAP 1030</td>
<td>Academic Presentations and Speaking Skills</td>
<td>1</td>
</tr>
<tr>
<td>EAP 1200</td>
<td>Academic Writing and Editing Skills II</td>
<td>3</td>
</tr>
<tr>
<td>EAP 1220</td>
<td>Academic Reading and Study Skills II</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics Requirements (2 courses) (p. 2)</td>
<td>6-8</td>
<td></td>
</tr>
</tbody>
</table>

*Students are placed in the appropriate mathematics class based on an online placement test. The recommended mathematics sequence is MATH 1510 and MATH 1520.*

General Elective Requirement (2 courses) (p. 2) 6

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>UNIV 1010</td>
<td>Enhancing First-Year Success</td>
<td>1</td>
</tr>
<tr>
<td>AENG 1001</td>
<td>Introduction to Aerospace &amp; Mechanical Engineering</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 28-30

Three-Semester (Comprehensive) Pathway
For the comprehensive pathway, students are required to take the courses below followed by the standard two-semester pathway.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEP 0400</td>
<td>Writing and Grammar Level 4: High Intermediate</td>
<td>4</td>
</tr>
<tr>
<td>AEP 0410</td>
<td>Contemporary Issues Level 4: High Intermediate</td>
<td>3</td>
</tr>
<tr>
<td>AEP 0420</td>
<td>Reading and Vocabulary Level 4: High Intermediate</td>
<td>3</td>
</tr>
<tr>
<td>AEP 0430</td>
<td>Listening &amp; Speaking Level 4: High Intermediate</td>
<td>4</td>
</tr>
<tr>
<td>EAP 1210</td>
<td>Pathway Recitation Lab II</td>
<td>1</td>
</tr>
<tr>
<td>Mathematics Requirements (1 course) (p. 2)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Students are placed in the appropriate mathematics class based on an online placement test. MATH 1200 is recommended.

| Total Credits | 18 |

**Mathematics Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0260</td>
<td>Intermediate Algebra $^1$</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1200</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1320</td>
<td>Survey of Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Pre-Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1510</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1520</td>
<td>Calculus II</td>
<td>4</td>
</tr>
</tbody>
</table>

$^1$ This course does not count towards the degree.

**General Elective Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTD 1000</td>
<td>Investigating America: An Introduction to American Studies</td>
<td>3</td>
</tr>
<tr>
<td>FPA 1000</td>
<td>Intro to the Arts</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>Introduction to Politics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1600</td>
<td>Introduction to International Politics</td>
<td>3</td>
</tr>
<tr>
<td>THEO 1000</td>
<td>Theological Foundations</td>
<td>3</td>
</tr>
<tr>
<td>WGST 1900</td>
<td>Introduction to Women's and Gender Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

**Continuation Standards**

Earn a 2.70 overall grade point average (GPA) with no grades below a "C."

**Progression Requirements**

- Minimum 2.70 cumulative grade point average (GPA).
- Grade of B or better in all classes counting toward major
- No C-/D/F/W/I/P/NP/S/U grades
- Writing portfolio

**Roadmap**

Roadmaps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

Courses and milestones designated as critical (marked with !) must be completed in the semester listed to ensure a timely graduation. Transfer credit may change the roadmap.

This roadmap should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor/mentor each semester. Requirements, course availability and sequencing are subject to change.

**One-Semester (Accelerated) Pathway**

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year One</td>
<td></td>
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</tr>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAP 1200</td>
<td>Academic Writing and Editing Skills II</td>
<td>3</td>
</tr>
<tr>
<td>EAP 1220</td>
<td>Academic Reading and Study Skills II</td>
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<tr>
<td>MATH 1520</td>
<td>Calculus II</td>
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**General Elective**

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<td>EAP 1010</td>
<td>Pathway Recitation Lab I</td>
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<tr>
<td>UNIV 1010</td>
<td>Enhancing First-Year Success</td>
<td>1</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td></td>
<td><strong>16</strong></td>
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**Two-Semester (Standard) Pathway**

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<td>Academic Presentations and Speaking Skills</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1510</td>
<td>Calculus I (or higher)</td>
<td>4</td>
</tr>
<tr>
<td>Select one of the following:</td>
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<tr>
<td>FPA 1000</td>
<td>Intro to the Arts</td>
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<tr>
<td>POLS 1000</td>
<td>Introduction to Politics</td>
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<tr>
<td>Select one of the following:</td>
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<tr>
<td>POLS 1600</td>
<td>Introduction to International Politics</td>
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</tr>
<tr>
<td>WGST 1900</td>
<td>Introduction to Women's and Gender Studies</td>
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</tr>
</tbody>
</table>

**Total Credits**

| 31 |

**Three-Semester (Comprehensive) Pathway**

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<td>Pathway Recitation Lab II</td>
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<tr>
<td><strong>Credits</strong></td>
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<td><strong>15</strong></td>
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<p>| 31 |</p>
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1200</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Credits</td>
<td>18</td>
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<tr>
<td></td>
<td>Total Credits</td>
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