Aeronautical and astronautical engineering (AAE) focuses upon the challenges of flight. The proper aerodynamic shape, the correct engine for clean propulsion, the best materials for lightweight structures, and the safest control systems must be integrated to produce an efficient and economical flying machine. Our faculty brings their expertise in the varied disciplines of aerospace engineering to the classroom and laboratory and use extensive research activities to enhance their lectures. A fascination with flight and an interest in airplanes or spacecraft is often the primary motivation for starting a career in aeronautical and astronautical engineering. By the time a student graduates, they had developed a technical interest in aerodynamics, structures, dynamics, propulsion, controls, design, or systems. Those going on to obtain graduate degrees do so because they are interested in specific technical areas in which they wanted to develop more expertise.

**Career Areas/Job Titles:**

<table>
<thead>
<tr>
<th>Management and Industry</th>
<th>Operations Specialist</th>
<th>Design Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneur</td>
<td>Guidance and Control Systems</td>
<td>Education</td>
</tr>
<tr>
<td>Structural Design Expert</td>
<td>Communication and Media</td>
<td>K-12 Teacher</td>
</tr>
<tr>
<td>Manager</td>
<td>Technical Writer</td>
<td>Professor</td>
</tr>
<tr>
<td>Manufacturing Expert</td>
<td>Grant Writer</td>
<td>Government/Politics</td>
</tr>
<tr>
<td>Consultant</td>
<td>Marketing Specialist</td>
<td>Lobbyist</td>
</tr>
<tr>
<td>Materials Specialist</td>
<td>Science and Technology</td>
<td>Lawyer</td>
</tr>
<tr>
<td>Propulsion Expert</td>
<td>Research and Design Specialist</td>
<td></td>
</tr>
<tr>
<td>Sales Person</td>
<td>Aerospace Engineer</td>
<td></td>
</tr>
</tbody>
</table>

*Some careers may require licensure, certification, or further education. Talk to an advisor about specific requirements.*

**Transferable Skills:**

- Basic Computer Skills
- Engineering Fundamentals
- Mathematic Skills
- Physics Foundation
- Persuasion
- Provide/Respond to Feedback
- Use Technology Effectively
- Written Communication
- Teamwork
- Willingness to Take Risks
- Conceptualization
- Defining Needs
- Forecasting/Predicting
- Identifying Problems
- Setting Goals
- Adaptability/Flexibility
- Attention to Detail
- Judgment & Decision Making
- Initiative
- Delegating Tasks
- Organization Skills
- Planning
- Prioritizing Tasks
- Strategic Planning/Visioning
- Creating Innovative Solutions
- Quantitative Reasoning
- Analytical/Critical Thinking

*This is not an extensive list of transferable skills. See larger list of skills you might develop here: [http://ccss.osu.edu](http://ccss.osu.edu)*

**Professional Links:**

- American Institute of Aeronautics and Astronautics: [https://www.aiaa.org](https://www.aiaa.org)
- Aerial Robotics Team at Ohio State: [http://engineering.osu.edu/studentorgs/buckeye-aerial-robotics-team](http://engineering.osu.edu/studentorgs/buckeye-aerial-robotics-team)
- AAE at Ohio State: [http://mae.osu.edu/undergraduate/aeronautical-and-astronautical-engineering-program](http://mae.osu.edu/undergraduate/aeronautical-and-astronautical-engineering-program)