# Aeronautics Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO 306</td>
<td>Aerodynamics and Flight Performance</td>
<td>4</td>
</tr>
<tr>
<td>AERO 307</td>
<td>Experimental Aerodynamics</td>
<td>2</td>
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<tr>
<td>AERO 401</td>
<td>Propulsion Systems</td>
<td>5</td>
</tr>
<tr>
<td>AERO 405</td>
<td>Supersonic and Hypersonic Aerodynamics</td>
<td>4</td>
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<tr>
<td>AERO 420</td>
<td>Aircraft Dynamics and Control</td>
<td>4</td>
</tr>
<tr>
<td>AERO 443</td>
<td>Aircraft Design I</td>
<td>3</td>
</tr>
<tr>
<td>AERO 444</td>
<td>Aircraft Design II</td>
<td>3</td>
</tr>
<tr>
<td>AERO 445</td>
<td>Aircraft Design III</td>
<td>3</td>
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**Aeronautics Approved Electives.**

Select from the following: 12 units

- AERO 351: Introduction to Orbital Mechanics
- AERO 360: Creative Problem Solving in Engineering Design 2
- AERO 355: Space Environments I
- AERO 356: Space Environments II
- AERO 406: Applied Computational Fluid Dynamics
- AERO 407: Reentry Aerodynamics
- AERO 408: Plasma Applications in Aerospace
- AERO 409: Flight Test
- AERO 421: Spacecraft Attitude Dynamics and Control
- AERO 425: Aircraft Performance
- AERO 432: Advanced Composite Structures Analysis
- AERO 434: Aerospace Structural Analysis III
- AERO 435: Aerospace Numerical Analysis
- AERO 450: Introduction to Aerospace Systems Engineering
- AERO 452: Spaceflight Dynamics II
- AERO 455: Introduction to Human Spaceflight
- AERO 446: Spacecraft Electrical and Electric Systems
- AERO 470: Selected Advanced Topics
- AERO 471: Selected Advanced Laboratory
- AERO 513: Applications of Remotely Piloted Aircraft Systems
- AERO 515: Continuum Mechanics
- AERO 522: Boundary-Layer Theory
- AERO 525: Computational Fluid Dynamics
- AERO 526: Spacecraft Thermal/Fluid Control
- AERO 532: Advanced Aerospace Composite Design
- AERO 533: Finite Elements for Aerospace Structural Analysis
- AERO 534: Aerospace Structural Dynamics Analysis
- AERO 535: Advanced Aerospace Structural Analysis
- AERO 540: Elements of Rocket Propulsion
- AERO 541: Air Breathing Propulsion
- AERO 548: Complexity in Engineered Systems
- AERO 549: Systems Engineering Applications
- AERO 553: Advanced Control Theory
- AERO 557: Advanced Orbital Mechanics
- AERO 560: Advanced Spacecraft Dynamics and Control
- AERO 561: Vehicle Integration and Testing
- AERO 562: Space Operations
- AERO 565: Advanced Topics in Aircraft Design
- AERO 568: Aerodynamic Research and Development I
- AERO 569: Aerodynamic Research and Development II
- AERO 570: Selected Advanced Topics 2
- AERO 571: Selected Advanced Topics Laboratory 2

**Total units:** 40

1. Consultation with advisor is recommended prior to selecting Approved Electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.
2. May require a petition depending on the topic. Please consult with your advisor.