

Student ID: _____ Catalog: _____
Student Name: _____ Program: Individualized Degree, B.S.
Advisor Name: _____ Minimum Credits Required: _____

Individualized Degree Program; Aerospace Systems Engineering Technology, B.S.

Students interested in pursuing a Bachelor of Science in the field of Aerospace Systems Engineering Technology may do so through the Individualized Degree Program (IDP), which allows for a combination of suggested course work across multiple departments with the flexibility to meet the needs of the individual student.

Degree/Graduation Requirements

- Multicultural Course
 - Students may fulfill the multicultural requirement by taking approved courses within one of the following categories: arts and humanities, historical, or social and behavioral sciences.
- Senior Experience

General Requirements

General Study Requirements

- Written Communication: 6 credits
 - Recommended Courses: ENG 1010 Composing Arguments (3), and ENG 1020 Research & Argument Writing (3)
- Oral Communications: 3 credits
 - Recommended Course: COMM 1010 Presentational Speaking (3)
- Quantitative Literacy: 3 credits
 - Recommended Course: MTH 1110 College Algebra (4)
- Arts and Humanities: 6 credits
 - Recommended Course: PHI 1030 Ethics (3) and another approved A&H course.
- Historical: 3 credits
- Natural & Physical Sciences: 5 credits
- Recommended Courses: PHY 2311 Gen Physics I (4) PHY 2321 Laboratory (1)
- Social and Behavioral Sciences: 6 credits
 - Recommended Courses: ECO 2010 Principles of Macroeconomics (3) & ECO 2020 Principles of Microeconomics (3)
- Global Diversity: (Can also satisfy a General Studies category, above.) 3 credits
 - Students may fulfill the global diversity requirements by taking approved courses within one of the following categories: arts and humanities; historical; natural and physical sciences; or social and behavioral sciences. (0-3)

Total of required credits for General Studies: 33-39 credits

Overview of Major Requirements

- Core classes (68 credits)
- Elective classes (7-13 credits)

See below for courses

Major Requirements

Aerospace Systems Engineering Technology Courses

- AES 2050 Av. History & Aerospace History Dev (3)
- AES 2607 Intro to Aerospace Sys Sim (3)
- AES 3000 Aircraft Systems & Propulsion (3)
- AES 3600 Space Flight Operations I (3)
- AES 3607 Orbital Mechanics & Aerospace Systems Simulations (3)
- AES 4601 Space Flight Operations II (3)
- AES 4602 Aerospace Comm Ops (3)
- AES 4603 Aerospace Ops Syst Anal & Design (3)
- CHE 1800 General Chemistry I (4)
- JMP 2610 Intro to Technical Writing (3)
- EET 2000 Electric Circuits and Machines (3)
- MET 1010 Manufacturing Processes (3)
- MET 1200 Technical Drawing I (3)
- MET 1310 Principles of Quality Assurance (3)
- CET 2150 Mechanics I – Statics (3)
- MET 2200 Materials of Engineering (3)
- MET 3110 Thermodynamics (3)
- MET 3160 Mechanics II – Dynamics (3)
- CET 3135 Mechanics of Materials w/Lab (4)
- MET 3185 Fluid Mechanics I (3)
- MET 3410 Geom Dimensioning & Tol (3)
- MET 4000 Project Engineering (3)

Electives

Students will need to take electives not listed here to meet the 120 credit hours and 40 upper division credits to complete the degree requirements. After completing the required courses there are 7-13 credit hours with 3 upper division credits that still need to be completed.

Space Commercialization

Students completing AES 3530, 3600, 4601, 4602, and 4603 will also earn an MSU Denver certificate in Space Commercialization. This certificate will provide the student with the knowledge to seek opportunities in an important and expanding part of the Colorado and national economy, as well as expand opportunities for those currently employed in the industry.

Total Aerospace Systems Engineering Technology Credits: 64 credit hours, 34 upper division

Total Credits: 123 credit hours, 40 upper division

Contact the Center for Individualized Learning here: [CIL Website](#) and [CIL Contact Form](#)

Academic Plan – Aerospace Physics

<p><u>Semester 1 – Fall</u></p> <ul style="list-style-type: none"> • CHE 1800 General Chemistry I (4) • ENG 1010 Composing Arguments (3) • MET 1010 Manufacturing Processes (3) • MTH 1110 College Algebra (4) • AES 2050 Av. History & Aerospace History Dev (3) <p>Total Credit Hours 17</p>	<p><u>Semester 2 – Spring</u></p> <ul style="list-style-type: none"> • COMM 1010 Presentational Speaking (3) • ECO 2010 Principles of Macroeconomics (3) • ENG 1020 Research & Argument Writing (3) • AES 3600 Space Flight Operations I (3) • MET 1200 Technical Drawing I (3) • MTH 1120 College Trigonometry (3) <p>Total Credit Hours 18</p>
<p><u>Semester 3 – Fall</u></p> <ul style="list-style-type: none"> • MET 1310 Principles of Quality Assurance (3) • A&H elective (3) • MTH 1410 Calculus I (4) • PHI 1030 Ethics (3) • JMP 2610 Intro to Technical Writing (3) <p>Total Credit Hours 16</p>	<p><u>Semester 4 – Spring</u></p> <ul style="list-style-type: none"> • PHY 2311 Gen Physics I (4) • PHY 2321 Gen Physics I Lab (1) • MTH 2410 Calculus II (4) • History elective (3) • CET 2150 Mechanics I – Statics (3) <p>Total Credit Hours 15</p>
<p><u>Semester 5 – Fall</u></p> <ul style="list-style-type: none"> • PHY 2331 Gen Physics II (4) • PHY 2341 Gen Physics II Lab (1) • MET 2200 Materials of Engineering (3) • MET 3160 Mechanics II – Dynamics (3) • ECO 2020 Principles of Microeconomics (3) • EET 2000 Electric Circuits and Machines (3) <p>Total Credit Hours 17</p>	<p><u>Semester 6 – Spring</u></p> <ul style="list-style-type: none"> • MET 3110 Thermodynamics (3) • CET 3135 Mechanics of Materials w/Lab (4) • MET 3185 Fluid Mechanics I (5) • AES 3000 Aircraft Systems & Propulsion (3) <p>Total Credit Hours 15</p>
<p><u>Semester 7 – Fall</u></p> <ul style="list-style-type: none"> • AES 4601 Space Flight Operations II (3) • AES 3530 Aerodynamics (3) • MET 4000 Project Engineering (3) • Major electives (7) <p>Total Credit Hours 16</p>	<p><u>Semester 8 – Spring</u></p> <ul style="list-style-type: none"> • AES 4602 Aerospace Comm Ops (3) • AES 4603 Aerospace Ops Syst Anal & Design (3) • MET 3410 Geom Dimensioning & Tol (3) • Major electives (7) <p>Total Credit Hours 16</p>