



ADVANCED MANUFACTURING SCIENCES MAJOR, B.S.

Aerospace Concentration | 2023-2024

SAMPLE ACADEMIC PLAN OF STUDY

The following academic plan is a *sample* pathway to completing degree requirements for this major/concentration.

GS – General Studies
 EESJ - Ethnic Studies & Social Justice
 GD – Global Diversity

Semester 1 - Fall	
ENG 1010 Composing Arguments (GS)	3
Oral Communication (GS)	3
Art and Humanities (GS; EESJ or GD)	3
Quantitative Literacy (GS)	3
AMS 1010 Survey of Advanced Manufacturing & Workplace Prep	3
TOTAL CREDIT HOURS	15

Semester 2 - Spring	
ENG 1020 Research and Argument Writing (GS)	3
Historical (GS; EESJ or GD)	3
Art and Humanities (GS; EESJ or GD)	3
MET 1010 Manufacturing Processes OR IND 2830 Manufacturing Materials and Processes	3
MTH 1120 College Trigonometry	3
TOTAL CREDIT HOURS	15

Semester 3 - Fall	
AES 1050 Introduction to Space	3
EET 1001 Electronics: An Introduction	3
JMP 2610 Introduction to Technical Writing	3
MET 1040 Introduction to Engineering (GS Natural & Physical Sciences)	3
MET 1200 Technical Drawing (Recommended) OR IND 1450 Technical Drawing and CAD OR CET 1215 Engineering Graphics	3
TOTAL CREDIT HOURS	15

Semester 4 - Spring	
AES 2607 Introduction to Aerospace Systems Simulation	3
AES 3530 Aerodynamics	3
MET 1310 Principles of Quality Assurance	3
PHY 1000 Introduction to Physics (GS Natural & Physical Sciences)	4
Social & Behavioral Science (GS)	3
TOTAL CREDIT HOURS	16

Semester 5 - Fall	
AES 3600 Space Flight Operations I	3
AMS 3010 Additive Manufacturing Stratasyss Cert Prep	3
MET 2010 CNC Machining and Inspection	3
MET 3000 Manufacturing Analysis	4
Advisor Approved Elective	3
TOTAL CREDIT HOURS	16

Semester 6 - Spring	
AES 4601 Space Flight Operations II	3
CS 1030 - Computer Science Principles	4
CET 3120 Engineering Economy (GS Social & Behavioral Sciences)	3
Advisor Approved Elective	3
TOTAL CREDIT HOURS	13

Semester 7 - Fall	
AES 3610 Elements of Spacecraft Design I	3
AES 4603 Aerospace Operations System Analysis and Design	3
CSS 2751 - Principles of Cybersecurity	3
MET 3630 Lean Manufacturing Systems Engineering	3
Advisor Approved Elective	3
TOTAL CREDIT HOURS	15

Semester 8 - Spring	
AMS 4950 Professional Internship	3
AES 4620 Elements of Space Craft Design II	3
CSS 3753 Computing & Security for Manufacturing	3
Advisor Approved Elective	3
Advisor Approved Elective	3
TOTAL CREDIT HOURS	15

Advisor Approved Electives: (15) credit hours with a minimum of (6) upper-division credit hours.

Metropolitan State University of Denver reserves the right to withdraw courses; revise the academic calendar; or change curriculum, graduation procedures, requirements and policies that apply to students at any time.