

ADVANCED MANUFACTURING SCIENCES MAJOR, B.S.

Mechanical Engineering Technology Concentration | 2023-2024

SAMPLE ACADEMIC PLAN OF STUDY

The following academic plan is a sample pathway to completing degree requirements for this major. GS – General Studies

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; ESSJ 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; ESSJ or GD)	3
MET 1010 Manufacturing Processes OR IND 2830 Manufacturing Materials and Processes	3
MTH 1120 College Trigonometry	3
Art and Humanities (GS; ESSJ or GD)	3
TOTAL CREDIT HOURS	15

Semester 3 - Fall	
PHY 1000 Introduction to Physics (GS Natural & Physical Sciences)	4
CHE 1100 Principles of Chemistry	4
CHE 1150 Principles of Chemistry Laboratory	1
EET 1001 Electronics: An Introduction	3
MET 1200 Technical Drawing (Recommended)	
<u>OR</u> IND 1450 Technical Drawing and CAD	3
<u>OR</u> CET 1215 Engineering Graphics	
TOTAL CREDIT HOURS	15

Semester 4 - Spring	
JMP 2610 Introduction to Technical Writing	3
MET 1310 Principles of Quality Assurance	3
MET 1210 3D Modeling	3
MET 2200 Materials of Engineering	3
MTH 1410 Calculus I	4
TOTAL CREDIT HOURS	16

Semester 5 - Fall	
AMS 3010 Additive Manufacturing Stratasys Cert Prep	3
MET 2010 CNC Machining and Inspection	3
MET 3000 Manufacturing Analysis	4
MET 3215 Composites Manufacturing	3
Social & Behavioral Sciences	3
TOTAL CREDIT HOURS	16

Semester 6 - Spring	
CET 3120 Engineering Economy (GS Social & Behavioral	3
Sciences)	3
CS 1030 Computer Science Principles	4
MET 3410 Geometric Dimensioning and Tolerancing	3
MET 4370 Advanced Composite Structures	3
Advisor Approved Elective	3
TOTAL CREDIT HOURS	16

Semester 7 - Fall	
AMS 4950 Professional Internship	3
CSS 2751 Principles of Cybersecurity	3
MET 3630 Lean Manufacturing Systems Engineering	3
Natural & Physical Sciences (GS)	3
Advisor Approved Elective	3
TOTAL CREDIT HOURS	15

Semester 8 - Spring	
CSS 3753 Computing & Security for Manufacturing	3
MET 3260 Direct Digital Manufacturing	3
MET 4080 Computer Aided Manufacturing	3
Advisor Approved Elective	3
TOTAL CREDIT HOURS	12

Advisor Approved Electives: (9) credit hours with a minimum of (9) 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.