

ADVANCED MANUFACTURING SCIENCES MAJOR, B.S.

Computer Science Concentration | 2021-2022

SAMPLE ACADEMIC PLAN OF STUDY

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

Semester 1 - Fall	
ENG 1010 Composing Arguments	3
Oral Communication	3
MTH 1110 College Algebra for Calculus	4
Art and Humanities (Multicultural or Global Diversity)	3
AMS 1010 Survey of Advanced Manufacturing & Workplace Prep	3
TOTAL CREDIT HOURS	16

Semester 2 - Spring	
ENG 1020 Research and Argument Writing	3
Historical (Multicultural or Global Diversity)	3
Art and Humanities (Multicultural or Global Diversity)	3
MET 1010 Manufacturing Processes (Recommended) OR IND 2830 Manufacturing Materials and Processes	3
CS 1050 Computer Science 1	4
TOTAL CREDIT HOURS	16

Semester 3 - Fall	
EET 1001 Electronics: An Introduction	3
MET 1200 Technical Drawing (Recommended)	
OR IND 1450 Technical Drawing and CAD	3
<u>OR</u> CET 1215 Engineering Graphics	
MTH 1120 College Trigonometry	3
CS 2050 Computer Science 2	4
Introduction to Engineering (CET 1040, EET 1040, MET 1040)	3
TOTAL CREDIT HOURS	16

Semester 4 - Spring	
PHY 2010 College Physics I	4
PHY 2030 College Physics Lab	1
MET 1310 Principles of Quality Assurance	3
CS 1400 Computer Organization 1	4
MTH 1410 Calculus I	4
TOTAL CREDIT HOURS	16

Semester 5 - Fall	
ECO 2020 Principles of Microeconomics (Recommended)	3
MET 3000 Manufacturing Analysis	3
MTH 2140 Computational Matrix Algebra	2
CS 2400 Computer Organization 2	4
CS 3140 Human-Computer Interaction	4
TOTAL CREDIT HOURS	16

Semester 6 - Spring	
CET 3120 Engineering Economy	3
CSS 1751 Computing and Security for Manufacturing	3
MET 2010 CNC Machining and Inspection	3
CS 3410 Embedded Systems	4
CS 3510 Computer Graphics	4
TOTAL CREDIT HOURS	17

Semester 7 - Fall	
JMP 2610 Introduction to Technical Writing	3
CS 3600 Operating Systems	4
CS 3750 - Computer and Network Security	4
AMS 3010 Additive Manufacturing Stratasys Cert Prep	3
TOTAL CREDIT HOURS	14

Semester 8 - Spring	
AMS 4950 Professional Internship	3
Advisor Approved Elective	3
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TOTAL CREDIT HOURS	12

Advisor Approved Electives: (7) credit hours with a minimum of (7) upper division courses.

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.