



ADVANCED MANUFACTURING SCIENCES MAJOR, B.S.

Industrial Design Concentration | 2022-2023

SAMPLE ACADEMIC PLAN OF STUDY

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

Semester 1 - Fall	
ENG 1010 Composing Arguments (GS)	3
Oral Communication (GS)	3
Art and Humanities (GS; Multicultural or Global Diversity)	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; Multicultural or Global Diversity)	3
Art and Humanities (GS; Multicultural or Global Diversity)	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	
IND 1000 Introduction to Industrial Design	1
EET 1001 Electronics: An Introduction	3
JMP 2610 Introduction to Technical Writing	3
MET 1040 Introduction to Engineering (GS)	3
MET 1200 Technical Drawing OR IND 1450 Technical Drawing and CAD OR CET 1215 Engineering Graphics	3
TOTAL CREDIT HOURS	13

Semester 4 - Spring	
IND 1100 Materials I: Materials and Fabrication	3
IND 1470 Design Drawing Techniques	3
MET 1310 Principles of Quality Assurance	3
PHY 1000 Introduction to Physics (GS)	4
Social & Behavioral Science (GS)	3
TOTAL CREDIT HOURS	16

Semester 5 - Fall	
IND 2100 Digital Composition	3
AMS 3010 Additive Manufacturing Stratasys Cert Prep	3
MET 2010 CNC Machining and Inspection	3
MET 3000 Manufacturing Analysis	4
MET 3630 Lean Manufacturing Systems Engineering	3
TOTAL CREDIT HOURS	16

Semester 6 - Spring	
CET 3120 Engineering Economy (GS)	3
IND 2455 Industrial Design Studio for Non-Majors	3
IND 3000 Design Thinking	3
CS 1030 Computer Science Principles	4
Advisor Approved Elective	3
TOTAL CREDIT HOURS	16

Semester 7 - Fall	
IND 3400 Product Usability and Ergonomics	3
MET 3260 Direct Digital Manufacturing	3
CSS 2751 Principles of Cybersecurity	3
Advisor Approved Elective	3
Advisor Approved Elective	3
TOTAL CREDIT HOURS	15

Semester 8 - Spring	
AMS 4950 Professional Internship	3
IND 3660 Computer Aided Modeling	3
CSS 3753 Computing & Security for Manufacturing	3
Advisor Approved Elective	3
Advisor Approved Elective	2
TOTAL CREDIT HOURS	14

Advisor Approved Electives: (14) credit hours with a minimum of (12) 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.