



**METROPOLITAN STATE UNIVERSITY<sup>SM</sup>**  
**OF DENVER**

**College of Professional Studies**

Advanced Manufacturing Sciences, B.S. - Industrial Design Concentration  
 Minor (Not Required)  
 2019 - 2020 Catalog Year

First Year		
Fall: 13 Credits	ENG 1010 (3) Composing Arguments	
	Oral Communication (3)	
	MTH 1110 (4) College Algebra	
	PHI 1030 (3) Introduction to Ethics (Recommended)	
Spring: 15 Credits	ENG 1020 (3) Research and Argument Writing	
	Historical (3) MC or GD recommended	
	AMS 1010 (3) Survey of Adv Manuf & Workplace Prep	
	MET 1010 (3) Manufacturing Processes (Recommended) <b>OR</b>	
	IND 2830 (3) Manufacturing Materials and Processes	
CIS 1010 (3) Introduction to Computers*		

Third Year		
Fall: 16 Credits	CET 3120 (3) Engineering Economy	
	AMS 3010 (3) Additive Manufacturing Stratasys Cert Prep	
	MET 3000 (4) Manufacturing Analysis	
	IND 2450 (4) Beginning Industrial Design Studio	
	IND 3100 (4) Composites: Materials and Fabrication	
Spring: 16 Credits	CSS 1751 (3) Computing and Security for Manufacturing	
	MET 2010 (3) CNC Machining and Inspection	
	IND 3000 (3) Design Thinking or Any 3000-4000 IND	
	IND 3660 (3) Computer Aided Modeling	
Advisor Approved Elective*		

Second Year		
Fall: 15 Credits	Art and Humanities (3) MC or GD recommended	
	EET 1001 (3) Electronics: An Introduction	
	JMP 2610 (3) Introduction to Technical Writing	
	MET 1200 (3) Technical Drawing I (Recommended) <b>OR</b>	
	IND 1450 (3) Technical Drawing and CAD <b>OR</b>	
	CET 1215 (3) Engineering Graphics	
MTH 1120 (3) College Trigonometry		
Spring: 14 Credits	ECO 2020 (3) Principles of Microeconomics (Recommended)	
	PHY 2010 (4) College Physics I	
	PHY 2030 (1) College Physics Laboratory	
	MET 1310 (3) Principles of Quality Assurance	
	IND 1130 (3) Plastics: Materials and Fabrication	

Fourth Year		
Fall: 15 Credits	IND 3260 (3) Dir Digital Manufacturing or Any 3000-4000 IND	
	IND 3400 (3) Product Usability and Ergonomics	
	Advisor Approved Elective*	
Spring: 15 Credits	Advisor Approved Elective*	
	Advisor Approved Elective*	
	AMS 4950 (3) Professional Internship	
	IND 3680 (3) Comp Modeling f Manuf or Any 3000-4000 IND	
	IND 4200 (3) Util of Comp in Manuf or Any 3000-4000 IND	
Advisor Approved Elective*		
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\*Students need to complete 25 credits of AMS advisor approved electives. A minimum of 6 credits of electives must be Upper Division (3000 or 4000 level). All students are required to complete 40 credits of Upper Division to graduate. *NOTE: If not a transfer student, may need to complete an additional 1-credit of GS Natural & Physical Sciences*