

EXHIBIT A

The following is a list of required courses for the Associates of Engineering Science degree.

Community College Courses

CC Course #	CC Course Name	Units	MSU Course #	MSU Course Name	Units
ENG 1021	English Comp I	3	ENG 1010	Composing Arguments	3
ENG 1022	English Comp II	3	ENG 1020	Research Arg. Writing	3
COM 1150	Public Speaking	3	COMM 1010	Presentational Speaking	3
*MAT 1440	Pre-calculus	5	MTH 1400	Pre-calculus	4
MAT 2410	Survey of Calculus I	5	MTH 1410	Calculus I	4
MAT 2420	Survey of Calculus II	5	MTH 2410	Calculus II	4
PHY 2111	Physics: Calculus-Based I	5	PHY 2311	General Physics I	4
			PHY 2321	General Physics Lab	1
PHY 2112	Physics: Calculus-Based II	5	PHY 2331	General Physics II	4
			PHY 2341	General Physics II Lab	1
CHE 1111	General College Chemistry	5	CHE 1100	General Chemistry	4
			CHE 1150	General Chem I Lab	1
**EGG 1040	Intro to Engineering	3	CET/EET/ MET 1040	Intro to Engineering	3
	***Engineering Elective	3			
	GT-SBS	3		GT-SBS	3
	†GT- AH-1	3		GT- AH -1	3
	††GT-History	3		GT- History	3
Total		60			58

* Students who have taken Pre-calculus before attending Community College will take 4 credits of Engineering electives instead. Students who have taken both Pre-calculus and Calculus before attending Community College will take 8 credit units of electives.

** EGG 1040 transfers to MSU Denver as either CET 1040, EET 1040, or MET 1040.

Computer Engineering students should take MAT 1260 Introduction to Statistics which transfers to MSU Denver as MTH 1210 which is required for Computer Engineering.

Environmental Engineering students should take ENV 1010 Environmental Science with Lab which transfers to MSU Denver as ENV 1200 Introduction to Environmental Science.

*** Computer Engineering students should take CSC 1060 Computer Science I which transfers to MSU Denver as CS 1050 Computer Science I.

†MSU Denver requires one 3-credit course to fulfill the Ethnic Studies and Social Justice (ESSJ) requirement that must be taken at the university. An additional 3-credit course is needed to fulfill the Global Diversity requirement.

The following 3-credit Arts and Humanities and History courses are recommended because they fulfill both the General Studies and Global Diversity requirements at MSU Denver.

ARTH 1600	World Art I: Art Prior to 1400
ART 1112	Art History - Renaissance - 1900
ART 1302	Painting II
HIS 1110	The World: Antiquity - 1500
HIS 1112	The World: 1500 – present
HIS 2300	The Middle Ages
HIS 2610	History of Modern China
HIS 1320	Western Civ: 1650-present
HIS 2200	History of Latin America
HIS 2005	Women in World History

MSU Courses: Mechanical Engineering Technology

Required Major Courses

CET 2150 - Mechanics I-Statics	3
CET 3135 - Mechanics of Materials with Laboratory	4
EET 2000 - Electric Circuits and Machines	3
EET 2350 - Advanced Technical Programming	3
EET 3010 - Industrial Electronics OR	4
EET 3730 - Process Control Systems (2) AND EET 3740 – Programmable Logic Controllers (2)	
JMP 2610 - Introduction to Technical Writing	3
MET 1010 - Manufacturing Processes	3
MET 1200 - Technical Drawing I	3
MET 1210 - 3D Modeling	3
MET 1310 - Principles of Quality Assurance	3
MET 2200 - Materials of Engineering	3
MET 3110 - Thermodynamics	3
MET 3160 - Mechanics II-Dynamics	3
MET 3185 - Fluid Mechanics	3
MET 3410 - Geometric Dimensioning and Tolerancing	3
MET 4000 - Project Engineering	3
MET 4100 - Senior Project I	1
MET 4110 - Senior Project II	2
Total	53

Select one of the following two concentrations:

Manufacturing Concentration

MET 2010 - CNC Machining & Inspection	3
MET 3000 - Manufacturing Analysis	4
MET 3250 - Tool Design and Production Tooling	3
MET 3300 - Statistical Process Control	3
MET 3330 - Robotics for Manufacturing	3
Upper Division Elective Units	3
MET 4080 - Computer Aided Manufacturing	3
Total	22

Mechanical Concentration

MET 3070 - Machine Design	3
MET 3125 - Heat Transfer with Laboratory	3
MET 3320 - Instrumentation Laboratory	3
MET 4070 - Computer Aided Design	3
MET 4280 - Advanced Energy Technology	3
Upper Division Elective Units	6
Total	21

Transfer credits	58
Required major courses	53
Concentration	21/22
ESSJ Requirement	3
Total	135/136