



CCD to CU-Denver Transfer Advising Guide for Mechanical Engineering (B.S.)

College of Engineering, Design and Computing

[Mechanical Engineering Department Website](#)

Program Overview:

The Mechanical engineering offers interesting and challenging career opportunities in research, design, development, manufacturing, testing and marketing for either private industry or government. As a mechanical engineer, you may work on products such as engines, transmissions, compressors, pumps, computer disk drives, CAD/CAE software, oil field drilling rigs, missiles, space satellites, earth moving equipment, container manufacturing machines and medical equipment.

Admission Requirements:

[Please see this website for more information regarding CU Engineering admission criteria.](#)

CCD Course Summary: (the following courses will apply directly to the degree)

Core Curriculum: (Please consult [CU Denver Core Curriculum](#) and [Transferology](#)) CCD Credits

ENG 121	English Composition 1	(3 credits)
ENG 122	English Composition 2	(3 credits)
Arts & Humanities	Two Courses (GT-AH1, AH2, AH3, or AH4)	(6 credits)
Social & Behavior Science	Two courses (GT-SS1, GT-SS2, or GT-SS3)	(6 credits)
History	GT-HI1	(3 credits)

Mathematics:

MAT 201	Calculus 1	(5 credits)
MAT 202	Calculus 2	(5 credits)
MAT 203	Calculus 3	(4 credits)
MAT 204	Calculus 3 with Engineering Applications	(5 credits)
MAT 255	Linear Algebra	(3 credits)
MAT 265	Differential Equations	(3 credits)
MAT 266	Differential Equations with Linear Algebra	(4 credits)

Science:

PHY 211	Calc-based Physics I	(5 credits)
PHY 212	Calc-based Physics II	(5 credits)
CHE 111	General Chemistry I	(5 credits)

Engineering/Computer Science:

CSC 160	Computer Science	(4 credits)
CAD 255	SolidWorks/Mechanical	(3 credits)
EGG 106	Robotics Design	(1 credit)
EGG 151	Experimental Design	(2 credits)

Suggested Five-Year Course Plan for Mechanical Engineering

This is a suggested guide of coursework only and is subject to change. Students should consult with a CU Denver academic advisor as soon as possible prior to transferring. CU Denver courses may be reverse transferred to count toward a community college associate degree. Course credits shown below reflect those awarded by the institution offering the course.

* denotes courses that do not apply to the B.S. degree

Community College of Denver (CCD) first two years

Fall Semester 1

Course	Course Title	CCD Credits
EGG 106	Robotics Design	1
MAT 121	College Algebra* GT:MA1	4
CAD 101	Computer Aided Drafting I*	3
ECO 202	Microeconomics	3
ENG 121	English Composition I GT-CO1	3
	Total Credits	14

Spring Semester 1

Course	Course Title	CCD Credits
EGG 151	Experimental Design	2
MAT 166	Pre-Calculus* GT:MA1	5
CHE 111	College Chemistry I (with lab) GT-SC1	5
ENG 122	English Composition II GT-CO2	3
	Total Credits	15

Fall Semester 2

Course	Course Title	CCD Credits
CAD 255	Solid Works/Mechanical	3
MAT 201	Calculus I GT:MA1	5
PHI 112	Ethics GT-AH3	3
COM 220	Intercultural Comm GT-SS3	3
Elective		1
	Total Credits	15

Spring Semester 2

Course	Course Title	CCD Credits
MAT 202	Calculus II GT:MA1	5
PHY 211	Physics Calculus Based (with lab) GT-SC1	5
Varies	GT-HI1	3
Varies	GT-AH1-2, 4	3
	Total Credits	16

CU-Denver (last three years)

Fall Semester 3

Course	Course Title	CU Credits
MATH 2421	Calculus III	4
MECH 2024	Materials Science	3
MECH 2034	Properties of Materials Lab	1
MECH 2023	Statics	3
	IWKS 2300	3
	Total Credits	14

CU-Denver (last three years)...continued

Spring Semester 3

Course	Course Title	CU Credits
MATH 3195	Linear Algebra & Differential Equations	4
MECH 1045	Manufacturing	3
MECH 3043	Strength of Materials	3
PHYS 2331/2341	General Physics II with Lab	5
	Total Credits	15

Fall Semester 4

Course	Course Title	CU Credits
MECH 3012	Thermodynamics	3
MECH 3010	Elem. Numerical Methods & Programming	3
ELEC 3030/MECH 3032	Electric Circuits & Systems w/ Lab	4
MECH 2033	Dynamics	3
	Total Credits	13

Spring Semester 4

Course	Course Title	CU Credits
MECH 3021	Introduction to Fluid Mechanics	3
MECH 3031	Fluids Thermal Lab	1
MECH 3022	Thermodynamics II	3
MECH 3035	Design of Mechanical Elements	3
MECH 3023	System Dynamics I	3
	Total Credits	13

Fall Semester 5

Course	Course Title	CU Credits
MECH 4023	System Dynamics II	3
MECH 4035	Senior Design I	3
MECH 3042	Heat Transfer	3
	Technical Elective 3000+	3
	Cultural Diversity	3
	Total Credits	15

Spring Semester 5

Course	Course Title	CU Credits
MECH 4045	Senior Design II	3
MECH 3027/3028	Measurements w/ Lab	4
MECH 4142	Thermal Systems Design	3
	Technical Elective 3000+	3
MECH	Total Credits	13