

METROPOLITAN STATE UNIVERSITY OF DENVER

PRE-ENGINEERING TRANSFER AGREEMENT FOR COMMUNITY COLLEGE STUDENTS

This agreement is designed for Colorado community college students planning to transfer to Metropolitan State University of Denver for a BS degree with a major in Civil Engineering Technology, Electrical Engineering Technology, or Mechanical Engineering Technology. This agreement identifies community college courses that will apply to the baccalaureate degree and will allow students beginning in a 2-yr college to earn a baccalaureate degree in about the same amount of time as students beginning at the 4-yr engineering program.

If you plan to complete an engineering bachelor's degree, recognize that:

1. You should transfer into the bachelor's program after you take the courses outlined below. Transfer hours beyond the credits below are not guaranteed to apply toward the engineering degree.
2. It is imperative that you contact an engineering advisor at the 4-year institution by the end of the first semester to clarify course work appropriate for your intended engineering major and to identify the community college courses and GPA necessary to meet the competitive admission requirements.
3. If your Colorado community college has an agreement with the 4-year institution, follow that agreement rather than this one.

Mathematics Skills: For community college students with strong math skills who are ready for Calculus I, transfer to the 4-year institution is recommended after completion of the courses below. Students who are not ready for Calculus I should consider working toward the associate degree while working with both 2-yr and 4-yr advisors on the selection of courses appropriate for transfer into an engineering program. Completion of the [gtPathways general education curriculum](#) will enhance transferability should the student switch from an engineering track to a liberal arts track.

Transfer Recommendations: A bachelor's degree in engineering is a demanding and prescribed curriculum that may take 6-8 semesters of coursework independent of the credit hours transferred from the community college. To graduate in a 4-5 year overall time frame, it is important that engineering students begin taking engineering courses during the sophomore year. Community college students within commuting distance of the 4-year institution should inquire about the possibility of concurrent registration prior to transfer.

Students who wish to continue their education at the community college beyond the number of credits in the pre-engineering program below should explore with both 2-yr and 4-yr advisors how their graduation timeline, COF stipend, and financial aid will be affected.

Guarantees and Limitations: Students who successfully complete (minimum C grade) the prescribed pre-engineering curriculum:

- are eligible to apply for admission directly into an engineering program at the 4-year institution
- are responsible for meeting all admission requirements at the 4-year institution
- are not guaranteed admission to the engineering program at the 4-year institution
- are guaranteed, once admitted, application of the transfer hours below to either lower division general education, course work required for the engineering major, or elective credit
- must consult with the 4-year institution's engineering program to utilize AP, IB, or CLEP credits
- must consult with the 4-year institution's engineering program for transferability of course work credits beyond those prescribed below as additional courses are major specific and the 4-year institution may restrict the number of community college transfer credits.

Contact Information:

303-556-2503

<http://www.msudenver.edu/et/>

Advisors: <http://www.msudenver.edu/et/advising/>

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Please note that this curriculum neither fulfills the gtPathways general education curriculum nor the associate degree requirements at the community college.

Required Courses Applicable to Engineering Majors			38 credits
General Education Knowledge Area	Credit Hours	Community College (CCCS) Course No.	Course Title and gtPathways Category
Written Communication	3	ENG 121	English Composition I (GT-CO1)
	3	ENG 122	English Composition II (GT-CO2)
Oral Communication	3	COM 115	Public Speaking
Art & Humanities	3		Any 200-Level GT-AH1, GT-AH2, GT-AH3
Social & Behavioral Science	3	ECO 201	Macroeconomics (GT-SS1)
History	3		Any 200-Level GT-HI1
Natural & Physical Sciences	5	PHY 211	Physics: Calculus-based I (GT-SC1)
	5	CHE 111	General College Chemistry I with Lab (GT-SC1)
Mathematics	5	MAT 201	Calculus I (GT-MA1)
	5	MAT 202	Calculus II (GT-MA1)

*Students are strongly encouraged to complete course sequences (such as, PHY 211 & 212 and MAT 201, 202 & 203) at the same institution before transferring.

Elective Courses Recommended by Major			0-14
Elective courses must be selected in consultation with the engineering advising office at the 4-year institution to verify they will transfer and apply to the student's chosen major requirements.			
Major Area	Credit Hours	Community College (CCCS) Course No.	Course Title
Civil Engineering Technology	4 <u>or</u>	MAT 203 <u>or</u>	Calculus III (GT-MA1) or
	5	MAT 204	Calculus III with Engineering Applications (GT-MA1)
	5	PHY 212	Physics: Calculus-based II (GT-SC1)
Electrical Engineering Technology			
Mechanical Engineering Technology	3	PHI 112	Ethics (GT-AH3)
	3		Any GT-SS1, GT-SS2, GT-SS3
	5	PHY 212	Physics: Calculus-based II (GT-SC1)

Transfer Disputes

If disagreement regarding the transferability of credits for coursework or a degree occurs between a student and a receiving two- year or four-year institution, the Department will facilitate an expeditious review and resolution of the matter pursuant to Commission Policy, Section I, Part T: Student Complaint Policy. For more information, contact the Department at 303-862-3001 or file a complaint at <http://higherred.colorado.gov/Academics/Complaints/default.html>

Minimum Admission Requirements			
Students 19 or younger		Students 20 or older	
GPA – Cumulative	2.3	GPA - Cumulative	N/A
Credit Hours Completed	30*	Credit Hours Completed	30 or high school diploma or GED
Mathematics	Must be at college level	Mathematics	N/A
Science	Must be at college level	Science	N/A

Students must have completed the same high school course requirements as entering freshman. Meeting minimum admission criteria is not a guarantee of admission to the institution or a specific program, but rather a minimum requirement a student should attain before attempting application. Please consult <http://www.msudenver.edu/admissions/apply/transfer/transferadmissionrequirements/> for more information. Students with <30 transferable hours will be considered on an individual basis, based on high school GPA, ACT/SAT scores and college course work completed.

Addendum

MSU Certificates in Advanced Composite Materials & Manufacturing and Additive Manufacturing Engineering

Both certificates can be earned while seeking a 4-year degree at MSU Denver. Colorado Community Colleges Common Course Numbering System (CCNS) courses that have been evaluated and approved for articulation into these certificates are listed below.

Required Courses for Advanced Composite Materials & Manufacturing Certificate			15 credits
MSU Course	Credit Hours	Community College (CCCS) Course No. and Title	
MET 1010 Manufacturing Processes	3	<i>Any one of the following:</i> MAC 101 Introduction to Machine Shop MAC 110 Introduction to Engine Lathe MAC 120 Intro to Milling Machine MTE 101 Introduction to Manufacturing MTE 120 Manufacturing Processes	
MET 1310 Principles of Quality Assurance	3		
MET 2200 Materials of Engineering	3	<i>Any one of the following:</i> EGT 201 MAC 252	
MET 3215 Composite Manufacturing	3		
MET 4370 Advanced Composite Structures: Design, Damage, Repair and Testing	3		

Required Courses for Additive Manufacturing Engineering Certificate			18 credits
MSU Course	Credit Hours	Community College (CCCS) Course No. and Title	
MET 1010 Manufacturing Processes	3	<i>Any one of the following:</i> MAC 101 Introduction to Machine Shop MAC 110 Introduction to Engine Lathe MAC 120 Intro to Milling Machine MTE 101 Introduction to Manufacturing MTE 120 Manufacturing Processes	
MET 1200 Technical Drawing I	3	<i>Any one of the following:</i> CAD 100 Print Reading for CAD CAD 102 Computer Aided Drafting II EGT 101 Technical Drafting I EGT 102 Technical Drafting II MAC 102 Print Reading for Machinists MAC 240 CAD/CAM 2D	
MET 1210 3D Modeling	3	<i>Any one of the following:</i> CAD 153 Intro to Pro Engineer/Basics CAD 240 Inventor I/Autodesk CAD 244 Advanced Inventor CAD 255 SolidWorks/Mechanical	
MET 1310 Principles of Quality Assurance	3		
MET 3260 Direct Digital Manufacturing	3	*CAD 262 3D Printing	
MET 3410 Geometric Dimensioning and Tolerance	3	*EGT 205 Geometric Dimension/Tolerance	

**this course will meet the requirements for this upper division MET course but will not be counted toward the 40 hours of required upper division credit required for the MET degree385*