



## College of Engineering

Engineering Student Success Team

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# COLLEGE OF ENGINEERING

## IOWA COMMUNITY COLLEGE TRANSFER GUIDE

The College of Engineering at the University of Iowa (UI) welcomes transfer students from **community colleges in the State of Iowa**. This guide outlines transfer coursework equivalent to the UI core engineering curriculum (required of all engineering majors), general education courses, and major specific coursework. Transfer courses must have a grade of "C-" or above to be applied towards a degree.

Please have an official transcript sent to: *University of Iowa, Office of Admissions, 2900 University Capitol Centre, 201 S. Clinton Street, Iowa City, IA 52242* when you have completed the course(s) and receive final grades.

## CORE ENGINEERING CURRICULUM

The following courses are required for all undergraduate engineering students, regardless of their specific major. Students can transfer in the required courses by taking the course(s) listed under "Iowa Community College Equivalency".

<b>CORE ENGINEERING CURRICULUM AND EQUIVALENCIES</b>			
<b>University of Iowa Course Details</b>		<b>Iowa Community College Equivalency</b>	
<b>Course Code</b>	<b>Course Title</b>	<b>Course Code</b>	<b>Course Title</b>
RHET:1030	Rhetoric	ENG 105 and ENG 106 and SPC 101 or SPC 112	Composition I and Composition II and Fund. of Oral Comm. or Public Speaking
MATH:1550	Engineering Calculus I	MAT 210	Calculus I
MATH:1560	Engineering Calculus II	MAT 216	Calculus II
MATH:2550	Engineering Matrix Algebra	MAT 149	Linear Algebra
MATH:2560	Engineering Differential Equations	MAT 227	Differential Equations
CHEM:1110	Principles of Chemistry I	CHM 165	General Chemistry I
PHYS:1611	Introductory Physics I	PHY 212	Classical Physics I
ENGR:1100	Introduction to Engineering Problem Solving	EGR 400 or EGR 410* or EGR 160* or EGR 192* or EGR 166*	Introduction to Engineering Design or Principles of Engineering* or Engineering I* or Engineering Graphics/Design* or Engr Graphics/Conceptual Design*
ENGR:1300	Introduction to Engineering Computing	CIS 161 <sup>‡</sup> or CIS 169 or CIS 171 or EGR 167*	C++ <sup>‡</sup> or C# or Java or Engineering II*

### KEY:

\* Course may not be offered at all Iowa community colleges

<sup>‡</sup> Course is recommended for **Electrical** or **Computer Science & Engineering** majors

## GENERAL EDUCATION COMPONENTS

The College of Engineering requires students to complete Rhetoric and 15 semester hours of general education credit. These credits must be earned from a specific general education component broken down below:

- **RHET:1030 Rhetoric** (transfer equivalency under the *Core Engineering Curriculum and Equivalencies* section)
- 9 semester hours of **approved general education** credit
- 3 semester hours of an Engineering **Be Creative** course
- 3 semester hours of a **Cultural Perspective, Values, and Society** (CPVS)

More information can be found on website: <http://www.engineering.uiowa.edu/current-students/academic-support/advising/general-education-component>

### General Education Components - Be Creative OR Cultural Perspective, Values, and Society:

The following courses will directly transfer as “Be Creative” or “Cultural Perspective, Values, and Society (CPVS)” credit. Please note that this list is **NOT** all inclusive. Any of the courses listed below can alternatively count as an “approved general education component”.

<b>BE CREATIVE AND CULTURAL PERSPECTIVE, VALUES, AND SOCIETY</b>					
<b>University of Iowa Course Details</b>		<b>Iowa Community College Equivalency</b>		<b>Classification</b>	
<b>Course Code</b>	<b>Course Title</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Be Creative</b>	<b>CPVS</b>
CW:2100	Creative Writing	ENG 221	Creative Writing	●	
CW:2875	Creative Poetry Writing	ENG 225	Creative Writing: Poetry	●	
THTR:1140	Basic Acting	DRA 130	Acting I	●	
ANTH:1101	Cultural Anthropology	ANT 105	Cultural Anthropology		●
COMM:1174	Media and Society	MMS 101 or JOU 110	Mass Media		●
PHIL:1861	Introduction to Philosophy	PHI 101	Introduction to Philosophy		●
PHIL:2402	Introduction to Ethics	PHI 105	Introduction to Ethics		●
RELS:1130	Introduction to Islamic Civilization	REL 125	Introduction to Islam		●
RELS:1404	Introduction to Asian Religions	REL 130	Introduction to Religion in the East		●

Students are able to take course(s) not on this list, however, the student will need to appeal if they want it to count as a *Be Creative* or *Cultural Perspective, Values, and Society* credit. Appeals can be submitted once a student is officially enrolled in College of Engineering at the University of Iowa.

The most common appeal is to count a studio arts course (e.g. ceramics, photography, painting, drawing, graphic design, or metal arts/jewelry arts) as the *Be Creative* general education component. It is highly encouraged that students submit an appeal if they have taken these types of courses, however, appeals are not guaranteed.

## General Education Component – Approved General Education Courses:

The following courses will directly transfer to the University of Iowa as an approved general education course. The following list is **NOT** all inclusive but includes frequently transferred courses.

<b>APPROVED GENERAL EDUCATION COURSES</b>			
<b>University of Iowa Course Details</b>		<b>Iowa Community College Equivalency</b>	
<b>Course Code</b>	<b>Course Title</b>	<b>Course Code</b>	<b>Course Title</b>
ACCT:2100	Introduction to Financial Accounting	ACC 152	Financial Accounting
ACCT:2200	Managerial Acct Analytics and Data Visualization	ACC 156 or ACC 222	Managerial Accounting or Cost Accounting
CINE:1601	Introduction to Film Analysis	DRA 116	Film Analysis
CRIM:1410	Introduction to Criminology	CRJ 200	Criminology
ECON:1100	Principles of Microeconomics	ECN 130	Principles of Microeconomics
ECON:1200	Principles of Macroeconomics	ECN 120	Principles of Macroeconomics
ENGL:1200	Introduction to Literature	LIT 101	Introduction to Literature
ENTR:2000	Entrepreneurship and Innovation	MGT 300	Introduction to Entrepreneurship
HIST:1261	American History to 1877	HIS 151	U.S. History to 1877
HIST:1262	American History from 1877 to Present	HIS 152	U.S. History Since 1877
HIST:1401	The West and the World: Ancient	HIS 126	West & World I Prehistory-500
HIST:1402	The West and the World: Medieval	HIS 127	West & World II 500-1750
HIST:1403	The West and the World: Modern	HIS 128	West & World III 1750-Present
MUS:1201	Musicianship and Theory I	MUS 120	Music Theory I
POLI:1001	Introduction to Politics	POL 110	Introduction to Political Science
POLI:1100	Introduction to American Politics	POL 111	American National Government
PSY:1001	Elementary Psychology	PSY 111	Introduction to Psychology
PSY:2401	Developmental Psychology	PSY 121 or ECE 170	Developmental Psychology or Child Growth & Development
SOC:1010	Introduction to Sociology	SOC 110	Introduction to Sociology

## TRANSFER ADMISSIONS REQUIREMENTS

The College of Engineering looks for an overall GPA that indicates the likelihood for success in engineering.

To transfer into the College of Engineering, students must have demonstrated success in math, science and engineering courses (grades of B- or higher in these foundation subjects, with no grade lower than a C).

At a minimum, transfer students must have completed Calculus I and the equivalent of either Iowa's *CHEM:1110* Principles of Chemistry I or *PHYS:1611* Introductory Physics I (e.g., the first semester of Chemistry designed for majors or the first semester of Calculus-based Physics). Students may transfer into engineering upon the successful completion of Calculus and Chemistry or Physics; it is not necessary to have 24 hours earned.

## ENGINEERING MAJOR SPECIFIC TRANSFER COURSE OPTIONS

As students advance in their studies beyond the engineering core curriculum, the degree requirements differ by engineering major. The following table details which courses are required based on the selected engineering major. Students can transfer in these courses by taking the "Iowa Community College Equivalency" listed in the right-most column.

### ENGINEERING MAJOR KEY:

**BME:** Biomedical Engineering

**CSE:** Computer Science & Engineering

**ISE:** Industrial & Systems Engineering

**CBE:** Chemical & Biochemical Engineering

**EE:** Electrical Engineering

**ME:** Mechanical Engineering

**CEE:** Civil Engineering

**ENVI:** Environmental Engineering

UI COURSE		UI COURSE IS REQUIRED FOR THE FOLLOWING MAJOR(S)								IOWA COMMUNITY COLLEGE EQUIVALENCY	
COURSE CODE	COURSE NAME	BME	CBE	CEE	CSE	EE	ENVI	ISE	ME	COURSE CODE	EQUIVALENT COURSE
CHEM:1120	Principles of Chemistry II	●	●	● (OR PHYS:1612)			●			CHM 175	General Chemistry II
PHYS:1612	Introductory Physics II	●		● (OR CHEM:1120)	●	●		●	●	PHY 222	Classical Physics II
MATH:3550	Engr Vector Calculus					●			●	MAT 219	Calculus III
BIOL:1411	Foundations of Biology	●					●			BIO 112	General Biology I
HHP:2400	Fund. Human Physiology	●								BIO 168 & BIO 173	Human Anatomy Physiology I & Human Anatomy Physiology II
CHEM:2210	Organic Chemistry I		●				●			CHM 262	Organic Chemistry I
CHEM:2220	Organic Chemistry II		●							CHM 272	Organic Chemistry II
CHEM:2410	Organic Chemistry Lab		●							CHM 262 & CHM 272	Excess Hours of Organic Chemistry I & II
CS:1210	Computer Science I: Fundamentals				●					CSC 142	Computer Science I
CS:2210	Discrete Structures				●					MAT 150	Discrete Math
CS:2230	Computer Science II: Data Structures				●					CSC 153	Data Structures
ENGR:2110	Statics	●		●			●	□	●	EGR 180	Statics
ENGR:2120	Electrical Circuits	●			●	●		□	●	EGR 285	Introduction to Electrical Sciences
ENGR:2130	Thermodynamics	●	●	●			●	□	●	EGR 290	Thermodynamics
ENGR:2710	Dynamics			●			●	□	●	EGR 280	Dynamics
ENGR:2720	Materials Science		●				●	□	●	EGR 170	Materials Science

□ ISE students may select up to 4 of these courses