

Iowa State University College of Engineering Requirements

- Courses must be completed with a grade of “C” or better in order to be considered for transfer credits into the College of Engineering.
- All engineering students must successfully complete **BASIC PROGRAM** courses (listed below) before progressing to upper level engineering program course work.
- Students not adequately prepared for success in Calculus I may need to take courses in addition to those listed in the Basic Program. Some students may first need to successfully complete college algebra (MATH 140; DuPage MATH 1431) and/or college trigonometry/prep for calculus (MATH 143; DuPage MATH 1432).
- The College of Engineering requires two years of a single foreign language in high school – OR – an equivalent in college (typically two semesters).

BASIC PROGRAM courses: required in all engineering degree programs at ISU

ISU Course	Cr	DuPage Course	Cr	
CHEM 177 or 167	4	General Chemistry for Engineers	CHEMI 1551	5
ENGL 150	3	Critical Thinking and Communication	ENGLI 1101	3
ENGL 250	3	WOVE Composition	ENGLI 1102	3
ENGR 101	R	Engineering Orientation		
ENGR 160	3	Engineering Problems		
LIB 160	1	Information Literacy		
MATH 165	4	Calculus I	MATH 2231	5
MATH 166	4	Calculus II	MATH 2232	5
PHYS 221	5	Classical Physics I	PHYSI 2111 and 2115 [^]	9 [^]

Additional courses required in *specific* engineering degree programs (majors) at ISU
(see abbreviation key on second page)

ISU Course	Engineering Major Requiring	Cr	DuPage Course	Cr	
BIOL 211 ⁺	AE, CE(Envr)	3	Principles of Biology I	BIOLO 1151 ⁺	4
BIOL 212 ⁺	BSE	3	Principles of Biology II	BIOLO 1152 ⁺	4
CHEM 178/178L	ChE, CE, MatE (& AE, BSE if 177 completed)	4	General Chemistry II & Lab	CHEMI 1552	5
CHEM 231/231L	CE(Envr)	4	Elementary Organic Chemistry	CHEMI 1212	5
CHEM 331/333L	BSE(BR,Pre), ChE	5	Organic Chemistry I	CHEMI 2551	5
CHEM 332/334L	BSE(BR,Pre), ChE	5	Organic Chemistry II	CHEMI 2552	5
ECON 101 or 102	ConE, ME (also accepted as an elective by all engineering majors)	3	Intro to Microeconomics (101) or Intro to Macroeconomics (102)	ECONO 2202 or 2201	3
EM 274	All <i>except</i> ChE, CprE, EE, SE	3	Engineering Statics	ENGIN 2201	3
EM 324	AerE, AE, BSE, CE, ConE, MatE, ME	3	Mechanics of Materials	ENGIN 2203	3
EM 345	AerE, AE(PM), CE, ME	3	Dynamics	ENGIN 2202	3
ME 231	AerE, AE, BSE, ConE(MC), IE, ME	3	Thermodynamics	ENGIN 2205	3
MATH 207	EE	3	Linear Algebra	MATH 2245	4
MATH 265	All <i>except</i> AE, BSE, SE	4	Calculus III	MATH 2233	4
MATH 267	ALL	4	Elem. Differential Equations	MATH 2270	4
PHYS 222	All <i>except</i> AE, BSE, CE(Envr), SE	5	Classical Physics II	PHYSI 2112	5
SP CM 212	CE, IE, SE (also accepted as an elective by AE, BSE, ChE, CprE, EE, MatE, ME)	3	Fundamentals of Public Speaking	SPEEC 1100	3

⁺The combination of DuPage BIOL 1151 and 1152 will transfer as credit for ISU BIOL 211 and BIOL 212
[^]The combination of DuPage PHYSI 2111 and 2115 will transfer as credit for ISU PHYS 221 (5 cr) and PHYS 2TXX (4 cr)

Abbreviation key:

Abbreviation	Major	Abbreviation	Major
AerE	Aerospace Engineering	CprE	Computer Engineering
AE	Agricultural Engineering	ConE	Construction Engineering
LW; AP; PM	Land&Water Resources option; Animal Production Systems option; Power & Machinery option	BU; EL; MC; HH	Building; Electrical; Mechanical; Heavy Highway emphasis
BSE	Biological Systems Engineering	EE	Electrical Engineering
BE; FE	Bioenvironmental option; Food Engineering option;	IE	Industrial Engineering
BR; Op	Biorenewable Resources option; Open option	MatE	Materials Engineering
ChE	Chemical Engineering	ME	Mechanical Engineering
CE	Civil Engineering	SE	Software Engineering
Envr	Environmental option		

Social Science/Humanities/General Education (SS/H) Requirements

- Engineering degree programs require between 12 and 15 credits in social sciences/humanities/general education (SS/H). The list below offers course options that are accepted by all ISU engineering departments; however, each program has unique requirements—please confirm choices on an individual basis if you know your intended engineering program.
- Iowa State University requires each student to complete three credits of course work categorized as “US Diversity” (indicated below with ¹); and 3 credits of course work categorized as “International Perspective” (indicated below with ²). These can be included within the 12-15 credits of SS/H requirements.

**Social science/humanities/general education (SS/H) courses accepted
in all ISU engineering degree programs**

ISU Course	Cr		DuPage Course	Cr
ANTHR 201 ²	3	Introduction to Cultural Anthropology	ANTHR 1100	3
ECON 101	3	Principles of Microeconomics	ECONO 2202	3
ECON 102	3	Principles of Macroeconomics	ECONO 2201	3
ENGL 201	3	Introduction to Literature	ENGLI 1130	3
HD FS 240 ¹	3	Children’s Literature	ENGLI 1157 or EDUCA 2211	3
HD FS 276 ¹	3	Human Sexuality	PSYCH 1140	3
HIST 201 ²	3	Introduction To Western Civilization I	HISTO 1110	3
HIST 202 ²	3	Introduction To Western Civilization II	HISTO 1120	3
HIST 221	3	Survey of U.S History I	HISTO 1130	3
HIST 222	3	Survey of U.S History II	HISTO 1140	3
MUSIC 102 ²	3	Introduction to Music Listening	MUSIC 1100	3
PHIL 201	3	Introduction to Philosophy	PHILO 1100	3
RELIG 205 ²	3	Introduction to World Religions	PHILO 1150 or RELIG 1150	3
POL S 215	3	Introduction to American Government	POLS 1101	3
POL S 241 ²	3	Comparative Politics	POLS 2203	3
POL S 251 ²	3	International Politics	POLS 2220	3
PSYCH 101	3	Introduction to Psychology	PSYCH 1100	3
PSYCH 230	3	Developmental Psychology	PSYCH 2237	3
PSYCH 280	3	Social Psychology	PSYCH 2240	3
SOC 134	3	Introduction to Sociology	SOCIO 1100	3
SOC 219	3	Sociology of Intimate Relationships	SOCIO 2220	
SOC 235 ¹	3	Social Problems and American Values	SOCIO 2210	3
SOC 241	3	Youth and Crime	CRIMJ 2240	3

More information and resources

- Please use this transfer plan as a guide as you confirm course choices with an academic adviser in your major of interest.
- Additional transfer student resources are available at www.engineering.iastate.edu/transfer.
- Email questions to engrapp@iastate.edu.