

IOWA STATE UNIVERSITY

College of Engineering

Waubonsee Community College Transfer Plan

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 credit into the College of Engineering.
- Students not adequately prepared for success in Calculus I may need to take courses in addition to those listed below. Some students may first need to successfully complete college algebra (MATH 140; WCC MTH 110 or 111) and/or college trigonometry/prep for calculus (MATH 143; WCC MTH 112 or 129/130).
- The College of Engineering requires two years of a single foreign language in high school or the equivalent in college (typically two semesters).

Courses required in all engineering degree programs at ISU				
>> focus on these courses first <<				
Iowa State	Cr	Iowa State Course Name	Waubonsee	Cr
CHEM 177 (or 167)	4	General Chemistry I (for Engineers)	CHM 121	4
ENGL 150	3	Critical Thinking and Communication	ENG 101	3
ENGL 250	3	WOVE Composition	ENG 102	3
ENGR 101	R	Engineering Orientation	n/a	
ENGR 160	3	Engineering Problems	n/a	
LIB 160	1	Information Literacy	n/a	
MATH 165	4	Calculus I	MTH 131	4
MATH 166	4	Calculus II	MTH 132	4
PHYS 221 (or 231/231L)	5	Classical Physics I and Lab	PHY 221 & 223 [^]	5 [^]

Additional courses required in specific engineering degree programs at ISU					
Iowa State	Engineering Major(s) Requiring Course (see abbreviation key below)	Cr	Iowa State Course Name	Waubonsee	Cr
BIOL 211 ⁺	AE, CE (<i>Envr</i>)	3	Principles of Biology I	BIO 120*	4
BIOL 212 ⁺	BSE	3	Principles of Biology II	BIO 122*	4
CE 274	All except ChE, CprE, CybE, EE, MatE, SE	3	Engineering Statics	EGR 220	3
CHEM 178/178L	ChE, CE, EnvE, MatE (possibly AE, BSE)	4	General Chemistry II and Lab	CHM 122	4
CHEM 331/333L	ChE (possibly BSE)	5	Organic Chemistry I and Lab	CHM 231	5
CHEM 332/334L	ChE (possibly BSE)	5	Organic Chemistry II and Lab	CHM 232	5
ECON 101 or ECON 102	ME, SE (also accepted as an elective by all other engineering majors)	3	Principles of Microeconomics (101) or Principles of Macroeconomics (102)	ECN 122 or 201 ECN 121 or 202	3
MATH 265	Required (or accepted as math elective) in all majors except AE (<i>LW</i>), BSE	4	Calculus III	MTH 233	4
MATH 267 or 266	All	4	Differential Equations	MTH 240	3
ME 345	AerE, AE (<i>PM</i>), CE, ME	3	Engineering Dynamics	EGR 230	3
PHYS 232/232L	AerE, ChE, CprE, ConE, EE, IE, MatE, ME	5	Classical Physics II and Lab	PHY 222	5
SP CM 212	CE, EnvE, IE, SE (also accepted as an elective by AE, BSE, ChE, CprE, CybE, EE, MatE, ME)	3	Fundamentals of Public Speaking	COM 200	3

*WCC BIO 120 and BIO 122 must both be completed in order to transfer as credit for ISU BIOL 211 and BIOL 212
[^]When both WCC PHY 221 and 223 are completed credit will transfer to ISU as PHYS 221 (5 cr) and 4 additional general PHYS credits

Abbreviation key			
Abbreviation	Major	Abbreviation	Major
AerE	Aerospace Engineering	CprE	Computer Engineering
AE <i>LW; AP; PM</i>	Agricultural Engineering Land&Water Resources option; Animal Production Systems option; Power&Machinery option	ConE <i>BE; EL; HH; MCH</i>	Construction Engineering Building Emphasis; Electrical Emphasis; Heavy/Highway; Mechanical Emphasis
BSE <i>BE; FE; BR; Op</i>	Biological Systems Engineering Bioenvironmental option; Food Engineering option; Biorenewable Resource option; Open option	CybE	Cyber Security Engineering
ChE	Chemical Engineering	EE	Electrical Engineering
CE	Civil Engineering	EnvE	Environmental Engineering
<i>Envr</i>	Environmental Specialization	IE	Industrial Engineering
		MatE	Materials Engineering
		ME	Mechanical Engineering
		SE	Software Engineering

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

- Engineering degree programs require between 9 and 15 general education credits in social sciences and humanities (SS/H). The list below offers course options that are widely accepted by ISU engineering majors; however, each program has unique requirements—please confirm choices on an individual basis if you know your intended engineering major.
- Iowa State University requires each student to complete three credits of course work categorized as “US Diversity” (indicated below with ¹); and three credits of course work categorized as “International Perspective” (indicated below with ²). These can be included within the SS/H requirements.

Social science/humanities (SS/H) courses widely accepted in ISU engineering degree programs				
Iowa State	Cr	Iowa State Course Name	Waubensee	Cr
ANTHRO 201 ²	3	Intro to Cultural Anthropology	ANT 101	3
ECON 101 or ECON 102	3	Principles of Microeconomics or Macroeconomics	ECN 122 or 201 or ECN 121 or 202	3
HIST 201 ²	3	Intro to Western Civilization I	HIS 101 and 111	6
HIST 202 ²	3	Intro to Western Civilization II	HIS 102 and 112	6
HIST 221	3	Survey of U.S. History I	HIS 121	3
HIST 222	3	Survey of U.S. History II	HIS 122	3
MUSIC 102 ²	3	Intro to Music Listening	MUS 100	3
PHIL 201	3	Intro to Philosophy	PHL 100	3
POL S 215	3	Intro to American Government	PSC 100	3
POL S 241 ²	3	Democracy and Dictatorship: Intro to Comparative Politics	PSC 220	3
POL S 251 ²	3	Intro to International Politics	PSC 260	3
PSYCH 101	3	Intro to Psychology	PSY 100	3
PSYCH 280	3	Social Psychology	PSY 235	3
RELIG 205 ²	3	World Religions	PHL 120 or RLG 120	3
SOC 134	3	Intro to Sociology	SOC 100	3
SOC 235 ¹	3	Social Problems and American Values	SOC 210	3
WGS 201 ¹	3	Intro to Women's and Gender Studies	IDS 110	3

More information and resources

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

