

Courses used in all engineering degree programs at ISU >> If offered at your school, focus on these courses first <<				
Iowa State	Cr	Iowa State Course Name	ECC	Cr
CHEM 1770 (or 1670)	4	General Chemistry I (for Engineers)	CHM 142	5
ENGL 1500	3	Critical Thinking and Communication	ENG 101	3
ENGL 2500	3	WOVE Composition	ENG 102	3
ENGR 1010	R	Engineering Orientation	n/a	
ENGR 1600	3	Engineering Problems	n/a	
LIB 1600	1	Information Literacy	n/a	
MATH 1650	4	Calculus I	MTH 190	5
MATH 1660	4	Calculus II	MTH 210	5
PHYS 2310/2310L	5	Classical Physics I and Lab	PHY 211	5

The College of Engineering only accepts grades of “C” or higher for transfer courses

Additional courses used in specific engineering degree programs at ISU					
Iowa State	Engineering Major(s) Requiring Course (see abbreviation key below)	Cr	Iowa State Course Name	ECC	Cr
BIOL 2110+	AE, BME	3	Principles of Biology I	BIO 113	4
BIOL 2120+	BSE, BME	3	Principles of Biology II	BIO 114	4
CE 2740	AerE, AE, BSE, CE, ConE, EnvE, IE, ME	3	Engineering Statics	EGR 152	3
CHEM 1780+Lab	AE, BSE, BME, ChE, CE, EnvE, MatE	4	General Chemistry II and Lab	CHM 143	5
CHEM 2310+Lab	BSE, BME, CE(Envr), EnvE	4	Elementary Organic Chemistry and Lab	CHM 170	5
CHEM 3310+Lab	ChE (possibly BSE)	5	Organic Chemistry I and Lab	CHM 234	5
CHEM 3320+Lab	ChE (possibly BSE)	5	Organic Chemistry II and Lab	CHM 235	5
ECON 1010 or ECON 1020	ME, SE (also accepted as an elective by all other engineering majors)	3	Principles of Microeconomics (1010) or Principles of Macroeconomics (1020)	ECN 201 Or ECN 202	3
MATH 2070	EE, CprE	3	Matrices and Linear Algebra	MTH 240	4
MATH 2650	Required (or accepted as math elective) in all majors except AE(LW), BSE	4	Calculus III	MTH 230	5
MATH 2670	All	4	Differential Equations	MTH 250	4
ME 2310	AerE, AE, BSE, ConE(MCH), EnvE, IE, ME	3	Engineering Thermodynamics I	EGR 192	3
ME 3450	AerE, AE(PM), CE, ME	3	Engineering Dynamics	EGR 252	3
PHYS 2320+Lab	AerE, BME, ChE, ConE, EE, IE, MatE, ME	5	Classical Physics II and Lab	PHY 212	5
SP CM 2120	AE, BSE, CE, EnvE, IE, ME, SE (also accepted as an elective by BME, ChE, CprE, CybE, EE, MatE)	3	Fundamentals of Public Speaking	CMS 101 or CMS 102	3

*ECC BIO 113 & BIO 114 must both be completed in order to transfer as credit for ISU BIOL 2110 and BIOL 2120

Abbreviation key for majors listed above			
Abbreviation	Major	Abbreviation	Major
AerE	Aerospace Engineering	ConE	Construction Engineering
AE	Agricultural Engineering	BE; EL;	Building Emphasis; Electrical Emphasis;
LW; AP;	Land&Water Resources option; Animal Production	HH; MCH	Heavy/Highway; Mechanical Emphasis
PM	Systems option; Power&Machinery option	CybE	Cyber Security Engineering
BSE	Biological Systems Engineering	EE	Electrical Engineering
BME	Biomedical Engineering	EnvE	Environmental Engineering
ChE	Chemical Engineering	IE	Industrial Engineering
CE	Civil Engineering	MatE	Materials Engineering
Envr	Environmental Specialization	ME	Mechanical Engineering
CprE	Computer 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 “U.S. Cultures and Communities” (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	ECC	Cr
ANTHRO 2010 ²	3	Intro to Cultural Anthropology	ATR 220	3
ECON 1010 / ECON 1020	3	Principles of Microeconomics / Macroeconomics	ECN 201 or 202	3
HD FS 2400 ¹	3	Literature for Children	LIT 225	3
HD FS 2760 ¹	3	Human Sexuality	SOC 225 or PSY 225	3
HIST 2010 ²	3	Intro to Western Civilization I	HIS 101	3
HIST 2020 ²	3	Intro to Western Civilization II	HIS 102	3
HIST 2210	3	Survey of U.S. History I	HIS 151	3
HIST 2220	3	Survey of U.S. History II	HIS 152	3
MUSIC 1020 ²	3	Intro to Music Listening	MUS 105	3
PHIL 2010	3	Intro to Philosophy	HUM 110	3
POL S 1110	3	Intro to American Government	POS 150	3
POL S 1250 ²	3	Democracy and Dictatorship: Intro to Comparative Politics	POS 250	3
POL S 1210 ²	3	Intro to International Politics	POS 251	3
PSYCH 1010	3	Intro to Psychology	PSY 100	3
PSYCH 2300	3	Developmental Psychology	PSY 218	3
PSYCH 2800	3	Social Psychology	SOC 215 or PSY 215	3
RELIG 2050 ²	3	World Religions	HUM 203	3
SOC 1340	3	Intro to Sociology	SOC 100	3
SOC 2190	3	Sociology of Intimate Relationships	SOC 210	3
SOC 2350 ¹	3	Social Problems and American Values	SOC 201	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-students.
- Email questions to engineering@iastate.edu.

Sample Elgin Community College course plan – Year One

SEMESTER 1

ECC Course Number	Credits	Course Name/Topic	Equivalent course at Iowa State
ENG 101	3	English/Composition I	ENGL 1500
MTH 190	5	Calculus I	MATH 1650
HIS 101	3	Western Civ I	HIST 2010
CHM 142	5	General Chemistry I	CHEM 1770 (or CHEM 1670)
	= 16 cr		

SEMESTER 2

ECC Course Number	Credits	Course Name/Topic	Equivalent course at Iowa State
ENG 102	3	English/Composition II	ENGL 2500
MTH 210	5	Calculus II	MATH 1660
PHY 211	5	Classical Physics I	PHYS 2310/2310L
ECN 201	3	Microeconomics	ECON 1010
	= 16 cr		