

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	COD	Cr
CHEM 1770 (or 1670)	4	General Chemistry I (for Engineers)	CHEM 1551	5
ENGL 1500	3	Critical Thinking and Communication	ENGLI 1101	3
ENGL 2500	3	WOVE Composition	ENGLI 1102	3
ENGR 1010	R	Engineering Orientation	ENGIN 1100	1
ENGR 1600	3	Engineering Problems	CIS 2485	3
LIB 1600	1	Information Literacy	EDUCA 1116	1
MATH 1650	4	Calculus I	MATH 2231	5
MATH 1660	4	Calculus II	MATH 2232	5
PHYS 2310/2310L	5	Classical Physics I and Lab	PHYSI 2111	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	COD	Cr
BIOL 2110+	AerE, BME	3	Principles of Biology I	BIOLO 1151	5
BIOL 2120+	BSE, BME	3	Principles of Biology II	BIOLO 1152	5
CE 2740	AerE, AE, BSE, CE, ConE, EnvE, IE, ME	3	Engineering Statics	ENGIN 2201	3
CHEM 1780+Lab	AE, BSE, BME, ChE, CE, EnvE, MatE	4	General Chemistry II and Lab	CHEM 1552	5
CHEM 3310+Lab	ChE (possibly BSE)	5	Organic Chemistry I and Lab	CHEM 2551	5
CHEM 3320+Lab	ChE (possibly BSE)	5	Organic Chemistry II and Lab	CHEM 2552	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)	ECONO 2202 or ECONO 2201	3
EM 3240	AerE, AE, BSE, CE, ConE, EnvE, ME	3	Mechanics of Materials	ENGIN 2203	3
MATH 2070	EE, CprE	3	Matrices and Linear Algebra	MATH 2245	4
MATH 2650	Required (or accepted as math elective) in all majors except AE(LW), BSE	4	Calculus III	MATH 2233	4
MATH 2670	All	4	Differential Equations	MATH 2270	4
ME 2310	AerE, AE, BSE, ConE(MCH), EnvE, IE, ME	3	Engineering Thermodynamics I	ENGIN 2205	3
ME 3450	AerE, AE(PM), CE, ME	3	Engineering Dynamics	ENGIN 2202	3
PHYS 2320+Lab	AerE, BME, ChE, ConE, EE, IE, MatE, ME	5	Classical Physics II and Lab	PHYSI 2112	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	SPEEC 1100	3

*COD BIOL 1151 & BIOL 1152 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; HH; MCH	Building Emphasis; Electrical Emphasis; Heavy/Highway; Mechanical Emphasis
LW; AP; PM	Land&Water Resources option; Animal Production 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	COD	Cr
ANTHRO 2010 ²	3	Intro to Cultural Anthropology	ANTHR 1100	3
ECON 1010 / ECON 1020	3	Principles of Microeconomics / Macroeconomics	ECONO 2202 or 2201	3
HD FS 2400 ¹	3	Literature for Children	EDUCA 1157	3
HD FS 2760 ¹	3	Human Sexuality	PSYCH 1140	3
HIST 2010 ²	3	Intro to Western Civilization I	HISTO 1110	3
HIST 2020 ²	3	Intro to Western Civilization II	HISTO 1120	3
HIST 2210	3	Survey of U.S. History I	HISTO 1130	3
HIST 2220	3	Survey of U.S. History II	HISTO 1140	3
MUSIC 1020 ²	3	Intro to Music Listening	MUSIC 1100	3
PHIL 2010	3	Intro to Philosophy	PHILO 1100	3
POL S 1110	3	Intro to American Government	POLS 1100	3
POL S 1250 ²	3	Democracy and Dictatorship: Intro to Comparative Politics	POLS 2203	3
POL S 1210 ²	3	Intro to International Politics	POLS 2220	3
PSYCH 1010	3	Intro to Psychology	PSYCH 1100	3
PSYCH 2300	3	Developmental Psychology	PSYCH 2237	3
PSYCH 2800	3	Social Psychology	PSYCH 2240	3
RELIG 2050 ²	3	World Religions	RELIG 1150	3
SOC 1340	3	Intro to Sociology	SOCIO 1100	3
SOC 2190	3	Sociology of Intimate Relationships	SOCIO 2220	3
SOC 2350 ¹	3	Social Problems and American Values	SOCIO 2210	3
SOC 2410	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 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 College of DuPage course plan for “Mechanical majors” - Year One

SEMESTER 1

COD Course Number	Credits	Course Name/Topic	Equivalent course at Iowa State
ENGLI 1101	3	English/Composition I	ENGL 1500
MATH 2231	5	Calculus I	MATH 1650
CHEMI 1551	5	General Chemistry I	CHEM 1770 (or 1670)
ECONO 2202	3	Microeconomics	ECON 1010
	= 16 cr		

SEMESTER 2

COD Course Number	Credits	Course Name/Topic	Equivalent course at Iowa State
ENGLI 1102	3	English/Composition II	ENGL 2500
MATH 2232	5	Calculus II	MATH 1660
PHYSI 2111	5	Classical Physics I and Lab	PHYS 2310 and 2310L
CIS 2485	3	C++ for Engineers	CPRE 1850 (ENGR 1600)
	= 16 cr		