

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	North Hennepin	Cr
CHEM 1770 (or 1670)	4	General Chemistry I (for Engineers)	CHEM 1061	4
ENGL 1500	3	Critical Thinking and Communication	ENGL 1201	4
ENGL 2500	3	WOVE Composition	ENGL 1202	2
ENGR 1010	R	Engineering Orientation	Not Offered	
ENGR 1600	3	Engineering Problems	Not Offered	
LIB 1600	1	Information Literacy	Not Offered	
MATH 1650	4	Calculus I	MATH 1221	5
MATH 1660	4	Calculus II	MATH 1222	5
PHYS 2310/2310L	5	Classical Physics I and Lab	PHYS 1601	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	North Hennepin	Cr
BIOL 2110+	AE, BME	3	Principles of Biology I	BIOL 1101	4
BIOL 2120+	BSE, BME	3	Principles of Biology II	BIOL 1102	4
CE 2740	AerE, AE, BSE, CE, ConE, EnvE, IE, ME	3	Engineering Statics	ENGR 2301	3
CHEM 1780+Lab	AE, BSE, BME, ChE, CE, EnvE, MatE	4	General Chemistry II and Lab	CHEM 1062	4
CHEM 3310+Lab	ChE (possibly BSE)	5	Organic Chemistry I and Lab	CHEM 2061	5
CHEM 3320+Lab	ChE (possibly BSE)	5	Organic Chemistry II and Lab	CHEM 2062	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)	ECON 1070 or 1060	3
EM 3240	AerE, AE, BSE, CE, ConE, EnvE, ME	3	Mechanics of Materials	ENGR 2302	3
MATH 2650	Required (or accepted as math elective) in all majors except AE(LW), BSE	4	Calculus III	MATH 2220	5
MATH 2670	All	4	Differential Equations	MATH 2400	4
ME 3450	AerE, AE(VS), CE, ME	3	Engineering Dynamics	ENGR 2303	3
MICRO 2010+Lab	AE(LW)	3	Intro to Microbiology	BIOL 2100	4
PHYS 2320+Lab	AerE,BME,ChE,ConE,EE,IE,MatE,ME	5	Classical Physics II and Lab	PHYS 1602	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	SPCH 1010	3

\*Anoka-Ramsey BIOL 1101 and BIOL 1102 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
VS	Systems option; Vehicle Systems 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 <sup>1</sup>); and three credits of course work categorized as “International Perspective” (indicated below with <sup>2</sup>). 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	North Hennepin	Cr
ANTHRO 2010 <sup>2</sup>	3	Intro to Cultural Anthropology	ANTH 1010	3
ECON 1010 / ECON 1020	3	Principles of Microeconomics / Macroeconomics	ECON 1070 or 1060	3
HD FS 2760 <sup>1</sup>	3	Human Sexuality	PSYC 2340	3
HIST 2010 <sup>2</sup>	3	Intro to Western Civilization I	HIST 1110	4
HIST 2020 <sup>2</sup>	3	Intro to Western Civilization II	HIST 1120	4
HIST 2210	3	Survey of U.S. History I	HIST 1200	4
HIST 2220	3	Survey of U.S. History II	HIST 1210	4
MUSIC 1020 <sup>2</sup>	3	Intro to Music Listening	MUSC 1220	3
PHIL 2010	3	Intro to Philosophy	PHIL 1010	3
POL S 1110	3	Intro to American Government	POLS 1100	3
PSYCH 1010	3	Intro to Psychology	PSYC 1150 or 1160	4
PSYCH 2300	3	Developmental Psychology	PSYC 1250	4
PSYCH 2800	3	Social Psychology	PSYC 2110	3
RELIG 2050 <sup>2</sup>	3	World Religions	PHIL 1080	3
SOC 1340	3	Intro to Sociology	SOC 1110	3
SOC 2350 <sup>1</sup>	3	Social Problems	SOC 1130	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.
- Email questions to [engineering@iastate.edu](mailto:engineering@iastate.edu). Additional resources are available at [www.engineering.iastate.edu/transfer-students](http://www.engineering.iastate.edu/transfer-students).

### Sample North Hennepin course plan – Year One

(Shown as an example only – please personalize when working with your academic advisor.)

#### SEMESTER 1

North Hennepin Course	Credits	Course Name/Topic	Equivalent course at Iowa State
ENGL 1201	4	English/Composition I	ENGL 1500
MATH 1221	5	Calculus I	MATH 1650
CHEM 1061	4	General Chemistry I	CHEM 1770 (or CHEM 1670)
MUSC 1220	3	Music Appreciation	MUSIC 1020
	= 16 cr		

#### SEMESTER 2

North Hennepin Course	Credits	Course Name/Topic	Equivalent course at Iowa State
ENGL 1202	2	Writing/Composition II	Engl 2500
MATH 1222	5	Calculus II	MATH 1660
PHYS 1601	6	Classical Physics I	PHYS 2310 & 2310L
ECON 1070	3	Microeconomics	ECON 1010
	= 16 cr		