

# IOWA STATE UNIVERSITY

## College of Engineering

### Illinois Central 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 and/or college trigonometry/prep for calculus.
- The College of Engineering requires two years of a single foreign language in high school or the equivalent in college.
- Beginning Fall 2023, ISU is offering a new degree program, Biomedical Engineering. This program requires a separate application and certain first-year course requirements. If you have interest in this degree, please consult with [engineering@iastate.edu](mailto:engineering@iastate.edu)

<b>Courses required in all engineering degree programs at ISU</b>				
<i>&gt;&gt; focus on these courses first &lt;&lt;</i>				
Iowa State	Cr	Iowa State Course Name	ICC	Cr
CHEM 177 (or 167)	4	General Chemistry I (for Engineers)	CHEM 130	4
ENGL 150	3	Critical Thinking and Communication	ENGL 110	3
ENGL 250	3	WOVE Composition	ENGL 111	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	MATH 222	5
MATH 166	4	Calculus II	MATH 223	4
PHYS 231/231L*	5	Classical Physics I and Lab	PHYS 211 & 213	(5)*

<b>Additional courses required in specific engineering degree programs at ISU</b>					
Iowa State	Engineering Major(s) Requiring Course (see abbreviation key below)	Cr	Iowa State Course Name	ICC	Cr
AGRON 182	AE(LW,PM)	3	Intro to Soil Science	AGRI 112	3
BIOL 211*	AE	3	Principles of Biology I	BIOL 160	4
BIOL 212*	BSE	3	Principles of Biology II	BIOL 161	4
CE 274	All except ChE,CprE,CybE,EE,MatE,SE	3	Engineering Statics	ENGR 251	3
CHEM 178/178L	ChE,CE,EnvE,MatE (possibly AE,BSE)	4	General Chemistry II and Lab	CHEM 132	4
CHEM 331/333L	ChE (possibly BSE)	5	Organic Chemistry I and Lab	CHEM 220	5
CHEM 332/334L	ChE (possibly BSE)	5	Organic Chemistry II and Lab	CHEM 230	4
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)	ECON 111 or ECON 110	3
MATH 265	Required (or accepted as math elective) in all majors except AE(LW), BSE	4	Calculus III	MATH 224	4
MATH 267 or 266	All	4	Differential Equations	MATH 250	3
ME 345	AerE, AE(PM), CE, ME	3	Engineering Dynamics	ENGR 252	3
PHYS 232/232L*	AerE,ChE,ConE,EE,IE,MatE,ME	5	Classical Physics II and Lab	PHYS 212&213	(5)*
SP CM 212	AE,BSE,CE,EnvE,IE,ME,SE (also accepted as an elective by ChE,CprE,CybE,EE,MatE)	3	Fundamentals of Public Speaking	COMM 212	3

\*When ICC PHYS 211, PHYS 212, and PHYS 213 are all taken the courses will transfer as ISU PHYS 231/231L (5) and PHYS 232/232L (5)

\*ICC BIOL 160 and BIOL 161 must both be completed in order to transfer as credit for ISU BIOL 211 and BIOL 212

<b>Abbreviation key</b>			
<b>Abbreviation</b>	<b>Major</b>	<b>Abbreviation</b>	<b>Major</b>
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>EC; FB; OP</i>	Biological Systems Engineering Ecological option; Food & Bioprocess 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 <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.

<b>Social science/humanities (SS/H) courses widely accepted in ISU engineering degree programs</b>				
<b>Iowa State</b>	<b>Cr</b>	<b>Iowa State Course Name</b>	<b>ICC</b>	<b>Cr</b>
ANTHRO 201 <sup>2</sup>	3	Intro to Cultural Anthropology	SOC 213	3
ECON 101 or ECON 102	3	Principles of Microeconomics or Macroeconomics	ECON 111 or 110	3
HD FS 240 <sup>1</sup>	3	Literature for Children	CHILD 231	3
HD FS 276 <sup>1</sup>	3	Human Sexuality	PSY 118	3
HIST 201 <sup>2</sup>	3	Intro to Western Civilization I	HIST 117	3
HIST 202 <sup>2</sup>	3	Intro to Western Civilization II	HIST 118	3
HIST 221	3	Survey of U.S. History I	HIST 201	3
HIST 222	3	Survey of U.S. History II	HIST 202	3
MUSIC 102 <sup>2</sup>	3	Intro to Music Listening	MUS 150	3
PHIL 201	3	Intro to Philosophy	PHIL 110	3
POL S 111	3	Intro to American Government	POLSC 115	3
POL S 125 <sup>2</sup>	3	Democracy and Dictatorship: Intro to Comparative Politics	POLSC 124	3
POL S 121 <sup>2</sup>	3	Intro to International Politics	POLSC 122	3
PSYCH 101	3	Intro to Psychology	PSY 110	3
PSYCH 230	3	Developmental Psychology	PSY 202	3
PSYCH 280	3	Social Psychology	SOC 218 or PSY 210	3
RELIG 205 <sup>2</sup>	3	World Religions	PHIL 112	3
SOC 134	3	Intro to Sociology	SOC 110	3
SOC 219	3	Sociology of Intimate Relationships	SOC 120	3
SOC 235 <sup>1</sup>	3	Social Problems and American Values	SOC 114	3
SOC 241	3	Youth and Crime	CRJ 118	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](http://www.engineering.iastate.edu/transfer-students).
- Email questions to [engineering@iastate.edu](mailto:engineering@iastate.edu)

## Sample Illinois Central College course plan – Year One

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

### SEMESTER 1

<b>ICC Course Number</b>	<b>Credits</b>	<b>Course Name/Topic</b>	<b>Equivalent course at Iowa State</b>
ENGL 110	3	English/Composition I	ENGL 150
MATH 222	5	Calculus I	MATH 165
PHYS 211	4	Classical Physics I	PHYS 231/231L
PHYS 213	2		
	= 14 cr		

### SEMESTER 2

<b>ICC Course Number</b>	<b>Credits</b>	<b>Course Name/Topic</b>	<b>Equivalent course at Iowa State</b>
ENGL 111	3	English/Composition II	ENGL 250
MATH 223	4	Calculus II	MATH 166
PHYS 212	4	Classical Physics II	PHYS 232/232L
ECON 111	3	Microeconomics	ECON 101
	= 14 cr		

### SUMMER 1

<b>ICC Course Number</b>	<b>Credits</b>	<b>Course Name/Topic</b>	<b>Equivalent course at Iowa State</b>
CHEM 130	4	General Chemistry I	CHEM 177/177L
	= 4 cr		