

IOWA STATE UNIVERSITY

College of Engineering

Black Hawk 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.

Courses required in all engineering degree programs at ISU				
<i>>> focus on these courses first <<</i>				
Iowa State	Cr	Iowa State Course Name	BHC	Cr
CHEM 177 (or 167)	4	General Chemistry I (for Engineers)	CHEM 101	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	MATH 124	4
MATH 166	4	Calculus II	MATH 225	4
PHYS 231/231L	5	Classical Physics I and Lab	PHYS 201	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	BHC	Cr
AGRON 181	AE(LW)	3	Intro to Crop Science	AG 138 or 283	3,4
AGRON 182	AE(LW,PM)	3	Intro to Soil Science	AG 131 or 282	4
BIOL 211 ⁺	AE	3	Principles of Biology I	BIOL 105 ⁺	5
BIOL 212 ⁺	BSE	3	Principles of Biology II	BIOL 106 ⁺	5
CE 274	All except ChE,CprE,CybE,EE,MatE,SE	3	Engineering Statics	GE 201	3
CHEM 178/178L	ChE,CE,EnvE,MatE (possibly AE,BSE)	4	General Chemistry II and Lab	CHEM 102	4
CHEM 231/231L	BSE, CE(Envr), EnvE	4	Elementary Organic Chemistry and Lab	CHEM 111	4
CHEM 331/333L	ChE (possibly BSE)	5	Organic Chemistry I and Lab	CHEM 203	5
CHEM 332/334L	ChE (possibly BSE)	5	Organic Chemistry II and Lab	CHEM 204	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)	ECON 222 or ECON 221	3
EM 324	AerE, AE, BSE, CE, ConE, EnvE, ME	3	Mechanics of Materials	GE 205	3
ENGR 170	AE, BSE, CE, ConE, MatE, ME	3	Engineering Graphics & Intro to Design	GE 101	3
MATH 207	EE, CprE	3	Matrices and Linear Algebra	MATH 230	3
MATH 265	Required (or accepted as math elective) in all majors except AE(LW), BSE	4	Calculus III	MATH 226	5
MATH 267 or 266	All	4	Differential Equations	MATH 235	3
ME 345	AerE, AE(PM), CE, ME	3	Engineering Dynamics	GE 202	3
PHYS 232/232L	AerE,ChE,ConE,EE,IE,MatE,ME	5	Classical Physics II and Lab	PHYS 202	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	SPEC 101	3

*BHC BIOL 105 AND BIOL 106 must both be completed in order to transfer as credit for ISU BIOL 211 and BIOL 212

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>EC; FB; OP</i>	Biological Systems Engineering Ecological option; Food & Bioprocess option; Open option	CybE	Cyber Security Engineering
		EE	Electrical Engineering
		EnvE	Environmental Engineering
ChE	Chemical Engineering	IE	Industrial Engineering
CE <i>Envr</i>	Civil Engineering Environmental Specialization	MatE	Materials Engineering
		ME	Mechanical Engineering
		SE	Software Engineering

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

- There is no requirement that any SS/H courses be completed prior to transfer. If a student chooses to complete SS/H courses at BHC, we recommend you contact Iowa State directly to ensure your intended engineering major accepts the specific course.
- 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	BHC	Cr
ANTHRO 201 ²	3	Intro to Cultural Anthropology	ANTH 102**	3
ECON 101 or ECON 102	3	Principles of Microeconomics or Macroeconomics	ECON 222 or 221	3
HD FS 240 ¹	3	Literature for Children	ENG 240	3
HD FS 276 ¹	3	Human Sexuality	PSYC 119	3
HIST 201 ²	3	Intro to Western Civilization I	HIST 125	3
HIST 202 ²	3	Intro to Western Civilization II	HIST 127	3
HIST 221	3	Survey of U.S. History I	HIST 105	3
HIST 222	3	Survey of U.S. History II	HIST 106	3
MUSIC 102 ²	3	Intro to Music Listening	MUSC 113 or 154	3
PHIL 201	3	Intro to Philosophy	PHIL 101	3
POL S 111	3	Intro to American Government	POL S 122	3
PSYCH 101	3	Intro to Psychology	PSYC 101	3
PSYCH 230	3	Developmental Psychology	PSYC 262 or 200	3
PSYCH 280	3	Social Psychology	PSYC 230	3
RELIG 205 ²	3	World Religions	HIST 222**	3
SOC 134	3	Intro to Sociology	SOC 101	3
SOC 219	3	Sociology of Intimate Relationships	SOC 251	3
SOC 235 ¹	3	Social Problems and American Values	SOC 102	3

**Also meets BHC’s non-western studies requirement

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

Last updated on 7/23/23 based on course listings in the ISU 2022-23 catalog and the BHC 2022-23 catalog.