

ASSOCIATE IN ENGINEERING SCIENCE

Engineering, Math and Computer Science

Program Overview

These requirements apply to students who first enrolled for Fall 2025 or later. Students who first enrolled prior to Fall 2025 should obtain the appropriate sheet of requirements from a Student Development Center.

Completion of the Associate in Engineering Science degree does not fulfill the requirements of the Illinois General Education core curriculum. After transfer, AES students will need to complete the general education requirements of the institution to which they transfer.

No more than two GEG and two HST courses (except HST 105) may be used to fulfill the General Education requirements.

Program Requirements

Communications

2 courses

Hours Required: 6

Code	Title	Hours
ENG 101	Composition I ¹	3
ENG 102	Composition II ¹	3

¹ A grade of C or better is required.

Mathematics

Hours Required: 15

Code	Title	Hours
MTH 200	Calculus I	5
MTH 201	Calculus II	5
MTH 202	Calculus III	5

Computer Science

Computer Science elective should be chosen based on engineering specialty and requirements of institution to which students transfer.

Hours Required: 4

Code	Title	Hours
CSC 121	Computer Science I	4

Physical and Life Sciences

Hours Required: 15

Code	Title	Hours
CHM 121	General Chemistry I	5
PHY 201	General Physics I-Mechanics	5
PHY 202	General Physics II-Electricity and Magnetism	5

Humanities and Fine Arts

Minimum of 3 hours required from this category.

One 3 credit-hour + course is required for graduation and must be from either the Humanities/Fine Arts or the Social Behavioral Sciences. An additional Humanities/Fine Arts course may be required at the transfer institution.

Hours Required: 3

Humanities

Code	Title	Hours
FRN 202	Intermediate French II	4
FRN 210	Introduction to French Literature	3
GER 202	Intermediate German II	4
GER 210	Introduction to German Literature ⁺	3
HST 105	Great Ideas of World Civilizations	3
or HUM 105	Great Ideas of World Civilizations	
HUM 104	Introduction to Middle Eastern Civilizations ⁺	3
HUM 120	Classical Mythology	3
HUM 125	World Mythology ⁺	3
JPN 202	Intermediate Japanese II	4
LIT 105	Poetry	3
LIT 115	Fiction	3
LIT 208	Non-Western Literature ⁺	3
LIT 210	Introduction to Shakespeare	3
LIT 219	Children's Literature	3
LIT 220	Japanese Literature in Translation ⁺	3
LIT 221	American Literature, Colonial Days to Civil War	3
LIT 222	American Literature: Civil War to Present	3
LIT 223	Multicultural American Literature ⁺	3
LIT 224	Women in Literature ⁺	3
LIT 231	English Literature to 1800	3
LIT 232	English Literature 1800-1914	3
PHI 101	Critical Thinking	3
PHI 105	Introduction to Philosophy	3
PHI 115	Ethics	3
PHI 120	Social and Political Philosophy	3
PHI 160	Non-Western Philosophy ⁺	3
PHI 205	Religions of the World ⁺	3
PHI 215	Religion in America ⁺	3
PHI 220	Philosophy of Religion	3
PHI 231	History of Philosophy--Ancient and Medieval	3
PHI 232	History of Philosophy-Modern	3
SGN 202	American Sign Language IV	3
SGN 210	American Sign Language: Cultural Perspective ⁺	4
SPA 202	Intermediate Spanish II	4
SPA 210	Introduction to Spanish Literature ⁺	3

⁺ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Fine Arts

Code	Title	Hours
ART 105	Introduction to Visual Art	3
ART 114	Introduction to Film	3
ART 130	Ancient and Medieval Art	3

ART 131	Gothic through Romantic Art	3
ART 132	Modern and Contemporary Art	3
ART 133	Non-Western Art ⁺	3
MCM 200	Film History ⁺	3
MUS 103	Music Appreciation	3
MUS 104	Introduction to American Music ⁺	3
MUS 106	Introduction to Jazz	3
MUS 120	Introduction to Music Literature	3
THE 111	Introduction to Theatre ⁺	3
THE 121	Ethnic Traditions in American Theatre	3

⁺ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Interdisciplinary Studies

Code	Title	Hours
HUM 101	Ancient through the Medieval West ⁺	3
HUM 102	Renaissance through the Modern West ⁺	3
HUM 106	The Cultures of Asia ⁺	3
HUM 107	The Cultures of Africa ⁺	3
HUM 110	Women and Creativity ⁺	3
LIT 112	Literature and Film	3

⁺ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Social and Behavioral Sciences

Minimum of 3 hours required from the category.

One 3 credit-hour course is required for graduation and must be from either the Humanities/Fine Arts or the Social Behavioral Sciences. An additional Social/Behavioral Science course may be required at the transfer institution.

Hours Required: 3

Code	Title	Hours
ANT 101	Introduction to Anthropology ⁺	3
ANT 202	Cultural Anthropology ⁺	3
ANT 205	Physical Anthropology	3
ANT 206	Archeology ⁺	3
ECO 200	Introduction to Economics ⁺	3
ECO 211	Microeconomics	3
ECO 212	Macroeconomics	3
GEG 100	Cultural Geography ⁺	3
GEG 101	World Regional Geography ⁺	3
GEG 103	The Developing World ⁺	3
GEG 104	The Developed World ⁺	3
GIS 100	Introduction to Geospatial Technologies	3
HED 202	Human Sexuality ⁺	3
HST 111	American Experience to 1877	3
HST 112	American Experience Since 1877	3
HST 121	History of Mexico, Central and South America ⁺	3
HST 141	History of Western Civilization to 1650	4
HST 142	History of Western Civilization Since 1650	4

HST 231	History of the Middle East to 1453	3
HST 232	History of the Middle East 1453 to Present	3
HST 241	History of China: Earliest Time through Ming Dynasty	3
HST 242	History of China: From the Ching Dynasty to Present	3
HST 243	Far East in the Modern World	3
HST 245	The World Since 1945	3
PSC 101	American Politics and Government	3
PSC 220	State and Local Government in the U.S.	3
PSC 250	Comparative Politics ⁺	3
PSC 270	Global Politics ⁺	3
PSC 280	Non-Western Comparative Politics ⁺	3
PSY 101	Introduction to Psychology ⁺	3
PSY 216	Child Psychology I	3
PSY 217	Adolescent Psychology	3
PSY 218	Adult Psychology	3
PSY 228	Psychology of Human Development	3
SOC 101	Introduction to Sociology ⁺	3
SOC 120	Family in Contemporary Society ⁺	3
SOC 205	Social Problems ⁺	3
SOC 215	Introduction to Social Psychology ⁺	3
SOC 230	Sociology of Sex and Gender ⁺	3
SOC 235	Race and Ethnicity ⁺	3

⁺ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Engineering

Specialty courses approved in consultation with the engineering department chair.

Hours Required: 16

Code	Title	Hours
CHM 122	General Chemistry II	5
CHM 204	Organic Chemistry I	5
CHM 205	Organic Chemistry II	5
CSC 122	Computer Science II	4
CSC 211	Introduction to C Programming and UNIX	4
CSC 214	Java Programming	4
CSC 216	Data Structures and Algorithm Analysis	4
CSC 217	Assembler Programming and Machine Organization	4
EGR 100	Introduction to Engineering	1
EGR 105	Problem-Solving with Matlab and Excel	1
EGR 110	Introduction to Electrical and Computer Engineering	4
EGR 120	Engineering Graphics I (CAD)	4
EGR 210	Analytical Mechanics - Statics	3
EGR 211	Analytical Mechanics - Dynamics	3
EGR 212	Mechanics of Solids	3
EGR 240	Thermodynamics	3
EGR 265	Circuit Analysis	4

EGR 295	Independent Study in Engineering	1-4
MTH 203	Linear Algebra	4
MTH 212	Differential Equations	3
MTH 220	Discrete Mathematics	3
PHY 203	General Physics III-Thermal and Quantum Physics	5

World Cultures and Diversity Requirement

One 3-credit hour course is required. Courses that fulfill this requirement may also be used to fulfill requirements the General Education category.

Select one course marked with a + from the above Groups.

Total Hours Required

Hours Required: 62