

# ASSOCIATE IN ENGINEERING SCIENCE



A.E.S. Degree

Minimum 62 hours

See [www.iTransfer.org](http://www.iTransfer.org) • Minimum 2.0 OGPA • Major Code: DAES

Bachelor's engineering programs are highly structured to meet the standards established by the Accreditation Board of Engineering and Technology (ABET) required for candidates seeking Illinois registration as a professional engineer. Students are strongly encouraged to complete the Associate in Engineering Science degree prior to transfer. To transfer as a junior into a bachelor's engineering program, students must complete a minimum of 60 semester hours up to a maximum of 68 hours, including all of the essential prerequisite courses listed below. Students with fewer than 68 semester hours at transfer are not likely to earn the bachelor's degree within two years after transfer.

Students admitted to the program must meet the state's high school course requirements: 4 years English, 3 years in math, science, and social studies. A fourth year of math is recommended. Students are advised that admission to senior institutions is highly competitive and that completion of the courses alone does not guarantee admission.

## General Education Core Courses

General education courses are described in the Illinois General Education Core Curriculum. Since completion of this engineering curriculum does not fulfill the requirements of the Illinois General Education Core Curriculum, students will need to complete the general education requirements of the institution to which they transfer.

\*Students are encouraged to select at least one course in either the humanities/fine arts or the social/behavioral sciences that emphasizes non-Western cultures or minority cultures within the United States. If two courses are selected in a field, a two-semester sequence in the same discipline is recommended.

## COMMUNICATIONS: 6 semester hours required (2 courses)

Students must successfully complete courses with a grade of A, B, or C.

_____	ENG	121-3	(C1 900)	Rhetoric & Composition I
_____	ENG	122-3	(C1 901R)	Rhetoric & Composition II

## HUMANITIES AND FINE ARTS: 0-9 semester hours (up to 3 courses)

### Area 1

_____	ART	121-3	(F2 900)	Art Appreciation
_____	ART	222-3	(F2 901)	Prehistory to Medieval Art
_____	ART	223-3	(F2 902)	Renaissance to Contemporary Art
_____	COM	128-3	(F2 905)	Film Appreciation
_____	MUS	121-3	(F1 900)	Music Appreciation
_____	MUS	126-3	(F1 904)	Intro to American Music
_____	THTR	121-3	(F1 907)	Introduction to Theater

### Area 2

_____	ENG	243-3	(H3 902)	Introduction to Drama
_____	ENG	245-3	(H3 906)	World Literature
_____	ENG	246-3	(H3 907)	Modern Literature
_____	ENG	261-3	(H3 914)	American Literature
_____	ENG	262-3	(H3 915)	American Literature II
_____	PHIL	121-3	(H4 900)	Intro to Philosophy
_____	PHIL	122-3	(H4 906)	Fundamentals of Logic
_____	PHIL	221-3	(H4 904)	Fundamentals of Ethics
_____	PHIL	224-3	(HS 904)	Comparative Religions

## SOCIAL & BEHAVIOR SCIENCES: 0-9 semester hours (up to 3 courses)

### Area 1

_____	ECE	141-3	(S6 903)	Child Development
_____	PSYC	121-3	(S6 900)	Intro Psychology
_____	PSYC	221-3	(S6 903)	Child Psychology
_____	SOC	121-3	(S7 900)	Introductory Sociology
_____	SOC	221-3	(S7 902)	The Family in Society

### Area 2

_____	HIST	121-3	(S2 902)	Western Civilization to 1648
_____	HIST	122-3	(S2 903)	Western Civilization from 1648
_____	HIST	141-3	(S2 901N)	Latin American History
_____	HIST	241-3	(S2 900N)	American History I
_____	HIST	242-3	(S2 901N)	American History II

### Area 3

_____	ECON	121-3	(S3 901)	Macroeconomics
_____	ECON	122-3	(S3 902)	Microeconomics
_____	GOVT	121-3	(S3 900)	American Government
_____	GOVT	226-3	(S3 904N)	Intro International Relations

## ESSENTIAL PREREQUISITE COURSES: 36 semester hours

### PHYSICAL & LIFE SCIENCES

#### Mathematics: 18 hours (Calculus I, II, III)

MATH 162-5, MATH 221-5, MATH 222-5, MATH 225-3 Differential Equations

Chemistry: CHEM 121-5, 5 semester hours

Calculus-Based Physics for Engineers I & II; (with lab)

PHYS 221-5, PHYS 222-5, 10 semester hours

Computer Programming: (structured modern language)

MATH 165-3, 3 semester hours

### ENGINEERING SPECIALTY COURSES: 14 semester hours

\_\_\_\_\_ CHEM 122-5 General Chemistry & Analysis II

\_\_\_\_\_ GRAP 121-3 Engineering Graphics 1

\_\_\_\_\_ PHYS 241-3 Statistics

\_\_\_\_\_ PHYS 242-3 Dynamics

Consult the college catalog of the college or university you are transferring to for engineering specialty courses required for your major. See a counselor for professional guidance.

Students should select courses in consultation with an engineering advisor and should decide on their engineering specialty and their preferred transfer school at the beginning of the sophomore year (at 30 semester hours) since engineering course selection varies by specialty and school. Usually, a grade of C or better is required for a course to fulfill a degree requirement. Since admission is very competitive, completion of the courses alone does not guarantee admission.

\_\_\_\_\_ 12 hours General Education Core

\_\_\_\_\_ 14 hours Engineering Specialty Courses

\_\_\_\_\_ 36 hours Essential Prerequisite Courses

\_\_\_\_\_ 62 Total Semester Hours Minimum for A.E.S. degree