



John A. Logan College

# Associate in Engineering Science Degree in Industrial Engineering

Transfer Curriculum AES 0096  
Associate in Engineering Science:  
66-67 Hrs. Min.  
Major Code: 1.1 143501  
Effective Date: Fall 2020

## GENERAL EDUCATION (IAI GECC, 27-39 CREDITS)

The Illinois Articulation Initiative (IAI) General Education Core Curriculum (GECC) requires 27 to 39 credit hours from the following five areas: communication; mathematics; physical and life sciences; humanities; and social and behavioral sciences. Courses selected to meet IAI GECC requirements may also meet course requirements for a specific major.

Consult with the transfer institution to determine if certain courses require a grade of "C" or higher, or if there is a minimum grade point average for admission to your declared major. Please select courses on this guide in accordance with the Articulation Notes for your transfer institution.

### FIRST SEMESTER (FALL)

Dept.	No.		Hrs.	Grade
MAT	131	Calculus I	5	_____
EGR	101	Engineering Graphics or Elective***	3	_____
ENG	101	English Composition I	3	_____
CHM	151	Chemical Principles	5	_____
ORI	100	College 101	1	_____
			17	

#### Fall Only Courses:

EGR 101  
CHM 201  
CPS 215  
MAT 202  
PHY 201  
PHY 206

#### Spring Only Courses:

CHM 202  
CPS 206  
MAT 205  
PHY 202  
PHY 203  
PHY 214/224

\*Recommended Social Science electives: ANT 111, ANT 202, ANT 216, GEO 112, SOC 215. For other IAI Social Science Electives, see below.

### SECOND SEMESTER (SPRING)

Dept.	No.		Hrs.	Grade
MAT	201	Calculus II	5	_____
PHY	205	University Physics I	5	_____
CPS	206	Computer Science I	4	_____
ENG	102	English Composition II	3	_____
			17	

\*\*Recommended Humanities/Fine Arts Electives: HIS 103, HIS 104, HIS 213, LIT 284, LIT 295, PHL 200. For other IAI Humanities, see below.

\*\*\*Choose electives based on your chosen transfer institution requirements.

**IAI INFORMATION:** This guide follows the guidelines established by the IAI Engineering major Panel for an Associates in Engineering Science Degree. This guide is not designed to complete the full IAI GECC component. You will need to fulfill the remaining IAI GECC courses at your transfer institution

### THIRD SEMESTER (FALL)

Dept.	No.		Hrs.	Grade
MAT	202	Calculus III	3	_____
PHY	206	University Physics II	5	_____
PHY	201	Statics	3	_____
ECO	201	Macroeconomics or Social Science Elective*	3	_____
		Fine Arts/Humanities Elective**	3	_____
			17	

#### IAI Fine Arts Electives:

Art: ART 111, 220, 221, 291  
Literature: LIT 275  
Music: MUS 105, 225  
Theater: THE 113

#### IAI Humanities Electives:

Foreign Language: FRE 202, GER 202, SPN 202  
History: HIS 101, 102, 213  
Literature: LIT 210, 230, 235, 264, 280, 281, 284, 295  
Philosophy: PHL 111, 121, 131, 200, 260

### FOURTH SEMESTER (SPRING)

Dept.	No.		Hrs.	Grade
MAT	205	Differential Equations	3	_____
PHY	202	Dynamics	3	_____
PHY	203	Mechanics of Materials	3	_____
ECO	202	Microeconomics or Social Science Elective*	3	_____
		IAI Life Science Elective or Elective***	3-4	_____
			15-16	

#### IAI Social and Behavioral Sciences Electives:

Anthropology: ANT 111, 202, 216, 240  
Economics: ECO 201, 202  
Geography: GEO 112  
History: HIS 103, 104, 201, 202  
Political Science: PSC 131, 211, 212, 213, 289  
Psychology: PSY 132, 200, 203, 262  
Sociology: SOC 133, 215, 263, 264

#### IAI Life Science Electives:

Biology: BIO 100, 101, 105, 225  
Interdisciplinary: PHS 101 with PHS 111, SCI 210A and SCI 210B  
Life Science: SCI 215

**\*Please see your advisor for possible specific four-year university transfer guides.**

**ARTICULATION NOTES:** Consult your academic advisor and/or transfer institution to assess if any courses required for your major require a grade of C or higher and if there is a minimum grade point average needed for admission consideration into your major.

#### IAI ENGINEERING MAJOR PANEL INFORMATION

Take EGR 101 (EGR 9410, PHY 201 (EGR 942), PHY 202 (EGR 943) and PHY 203 (EGR 945).

Take MAT 131 (MTH 901), MAT 201 (MTH 902) and MAT 202 (MTH 903). Take CHM 151 (CHM 911), PHY 205 (PHY 911), PHY 206 (PHY 912) and CPS 206 (CS

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911). Take ECO 202 (IAI S3 902). IF TWO COURSES ARE SELECTED FROM THIS IAI GECC CATEGORY, A TWO COURSE SEQUEENCE IS RECOMMENDED (take ECO 201-IAI GECC S3 901).

#### SIUC TRANSFER INFORMATION

SIUC does not offer a B.S. degree in INDUSTRIAL ENGINEERING. SIUC does offer a B.S. degree in industrial Management and Applied Engineering under the Department of Technology. This is an management oriented technical profession that is built upon sound knowledge and understanding of materials , processes, technical management and human relations; and a proficiency level in the physical sciences, mathematics and technical skills to permit the graduate to capably resolve technical-management an production problems.

#### SIUE TRANSFER INFORMATION

SIUE offers a B.B. degree in Industrial Engineering.

Take ENG 101 (ENG 101, ENG 102 (ENG 102) and ACS 103 (COM 116). Take MAT 131 (MATH 150), MAT 201 (MATH 152), MAT 202 (MATH 250 and MAT 205 (MATH 305). Take EGR 101 (CE 204), PHY 201 (CE 240), PHY 203 (CE 242), PHY 205 (PHYS 151L), PHY 206 (PHYS 152L), PHY 214 or PHY 215 (ECE 210) and ECO 201 (ECON 111).

#### UIUC TRANSFER INFORMATION

UIUC offers a B.S. degree in Industrial Engineering.

It is generally expected that applicants have a minimum of 3.00 (A= 4.00) overall GPA. The average GPA of a 2019 admitted transfer student in Industrial Engineering was at 3.85.

Take ENG 101/102 (RHET 105). CHM 151 (CHEM 102/103) CHM 202 (CHEM 104/105), MAT 131 (MATH 220), MAT 201 (MATH 231) and PHY 205 (PHYS 211). Take ECO 202 (ECON 102) or ECO 201 (ECON 103) and CPS 206 (CS 101 or 125.)

FOREIGN LANGUAGE THROUGH THE THIRD LEVEL (FRE 201, GER 201 or SPN 201) IS NOT REQUIRED FOR ADMISSION BUT IS REQUIRED AS A GRADUATION REQUIREMENT.

Take MAT 202 (FOR MATH 241 CREDIT, STUDENT WILL NEED TO TAKE UIUC BRIDGE COURSE-MATH 292), MAT 205 (MATH 284), PHY 206 (PHYS 212), PHY 201 (TAM211), PHY 202 (TAM 212), PHY 203 (TAM 251).

#### OTHER

UIC and CSU OFFER A BS DEGREE IN INDUSTRIAL ENGINEERING NIU OFFERS A BS DEGREE IN INDUSTRIAL AND SYSTEMS ENGINEERING