



## Illinois Valley Community College and NIU CEET Transfer Guidelines for B.S. Degree in Industrial and Systems Engineering

### The 2+2 Plan for Community College Students

The **Department of Industrial and Systems Engineering** welcomes transfer students from Illinois community colleges. Students find it easy to continue their studies at NIU if they plan well. Therefore, following the course guidelines in this brochure while completing an Associate in Engineering Science (AES) Degree is highly recommended [1]. Students should always work closely with their community college advisor.

### Courses at Illinois Valley Community College

Courses at Illinois Valley Community College		Equivalent courses at NIU
*SPH 1001	Fundamentals of Speech	COMS 100
**ENG 1001	English Composition I	ENGL 103
**ENG 1002	English Composition II	ENGL 203
***ECN 2002 <b>OR</b> ***ECN 2003	Principles of Microeconomics <b>OR</b> Principles of Macroeconomics	ECON 260 <b>OR</b> ECON 261
***PSY 1000	General Psychology	PSYC 102
CHM 1006	General Chemistry I	CHEM 210 and CHEM 212
CSI 1007	C++ Programming	CSCI 240 ( <b>see CSCI Department to adjust</b> )
MTH 2001	Calculus and Analytic Geometry I	MATH 229
MTH 2002	Calculus and Analytic Geometry II	MATH 230
MTH 2003	Calculus and Analytic Geometry III	MATH 232
MTH 2007	Differential Equations	MATH 336
PHY 1001	General Physics I	PHYS 253
PHY 2001 <b>AND</b> PHY 2002	General Physics <b>AND</b> General Physics	PHYS 273
EGR 1000	Engineering Graphics I	MEE 270
TAM 2001	Theoretical and Applied Mechanics (Statics and Dynamics)	MEE 210 and MEE 211
ELT 1204	Fundamentals of Electronics: DC/AC Theory and Circuit Analysis	TECH 175 and TECH 175A
<p>*Satisfies NIU Foundational Studies Oral Communication Requirement.  **Satisfies NIU Foundational Studies Writing Requirement.  ***Satisfies NIU Society and Culture Knowledge Domain (Gen Ed) Requirement.</p>		



[1] Only A.A. and A.S. degrees satisfy NIU's general education requirements.

### General Education Requirements

NIU's College of Engineering and Engineering Technology no longer requires special sequences in Social Sciences and Humanities. Therefore, students only need to satisfy NIU's general education requirements. When choosing general education ("knowledge domain") courses, please consult with your IVCC advisor, verify general education requirements in the [NIU Undergraduate Catalog](#), and check the [NIU Community College Articulation Tables](#) for transferability. Students are also required to fulfill a Human Diversity requirement, which may be fulfilled by a knowledge domain course.

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### Courses at NIU

Remaining classes to be taken at NIU's College of Engineering and Engineering Technology to earn a Bachelor of Science Degree in **Industrial and Systems Engineering**:

ISYE 220	Engineering Economy
ISYE 250	Introduction to Lean Systems Engineering
ISYE 310	Work Measurement and Work Design
ISYE 335	Probability and Statistics for Engineers
ISYE 350	Principles of Manufacturing Processes
ISYE 370	Operations Research: Deterministic Models
ISYE 371	Operations Research: Probabilistic Models
ISYE 410	Human Factors Engineering
ISYE 430	Quality Control
ISYE 435	Experimental Design for Engineering
ISYE 440	Production Planning and Control
ISYE 450	Lean Manufacturing Systems
ISYE 460	Facilities Planning and Design
ISYE 480	Simulation Modeling and Analysis
ISYE 492	Industrial and Systems Engineering Senior Design Project Proposal
ISYE 495	Senior Design Project
UEET 101/301	Introduction to Engineering/Transition to the Profession of Engineering

### 15 semester hours of Technical Electives

At least 9 semester hours must be from non-required ISYE courses at the 300- or 400-level. The remaining 6 semester hours may be chosen from: non-required ISYE 300- or 400-level courses **or** 300- or 400-level courses from ELE or MEE with the exception of MEE 330 and MEE 331 **or** from the following: ACCY 206, ACCY 207, ACCY 288, BIOS 311, COMS 302, COMS 361, ECON 301, ECON 361, ECON 386, MATH 240, MATH 360, MATH 380, MATH 434, MATH 435, MATH 439, MGMT 333, OMIS 351, OMIS 442, PSYC 345, PSYC 372, STAT 400/ACSC 400X, STAT 435, STAT 438/ACSC 438X.

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NORTHERN ILLINOIS UNIVERSITY

## College of Engineering and Engineering Technology

### For More Information

#### Department of Industrial and Systems Engineering

CEET EB 230  
Northern Illinois University  
DeKalb, IL 60115-2854  
(815) 753-1269

Visit our [Home Page](#). This site provides information on course descriptions, course syllabi, lab tours, faculty profiles, student organizations, suggested 4-year degree plan, other useful links, etc.

#### For undergraduate application materials, contact:

Office of Admissions  
Northern Illinois University  
DeKalb, IL 60115-2857  
[admissions@niu.edu](mailto:admissions@niu.edu)

Apply online at: <http://www.admissions.niu.edu/admissions/>

#### For more information on transfer programs at NIU:

Call **(815) 753-0446** or **(800) 892-3050 (toll free)** and ask to speak with a Transfer Counselor.

#### For more information about the Engineering Transfer Program at Illinois Valley Community College, contact:

Counseling and Advising at (815) 224-0360.

**Disclaimer:** Although NIU attempts to accommodate the course requests of all students, some course offerings may be limited by financial, space, and staffing considerations, or may otherwise be unavailable. Nothing in this brochure may be construed to promise or guarantee registration in any course or course of study (whether required or elective), nor may anything be construed to promise or guarantee the completion of an academic program within a specific length of time. All degree requirements are subject to the provisions and notices in the Undergraduate Catalog. Information in this brochure is valid through August 2020.