

# Moraine Valley Community College and NIU CEET Transfer Guidelines for B.S. Degree in <u>Mechanical Engineering</u>

## The 2+2 Plan for Community College Students

The Department of Mechanical 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 of Science (AS) Degree is highly recommended [1]. Students should always work closely with their community college advisor.

# **Courses at Moraine Valley Community College**

Courses at Moraine Valley Community College		Equivalent courses at NIU
*COM 103	Speech Fundamentals	COMS 100
**COM 101	Composition I	ENGL 103
**COM 102	Composition II	ENGL 203
CHM 131	Chemistry (University Oriented) I	CHEM 210 and CHEM 212
CSC 140 AND CSC 240	Intro to Computer Science AND Advanced Computer Science	CSCI 240 and CSCI 241 (only CSCI 240 required for MEE)
MTH 150	Calculus I/Analytic Geometry	MATH 229
MTH 151	Calculus II/Analytic Geometry	MATH 230
MTH 152	Calculus III/Analytic Geometry	MATH 232
MTH 201	Differential Equations	MATH 336
PHY 203	Mechanics	PHYS 253
PHY 204 <b>AND</b> PHY 205	Heat, Electricity and Magnetism AND Waves and Modern Physics	PHYS 273
EGN 150	Engineering Graphics	MEE 270
EGN 201	Engineering Statics	MEE 210
EGN 202	Engineering Dynamics	MEE 211
*Satisfies NIU Foundational Studies Oral Communication Requirement.		

<sup>\*\*</sup>Satisfies NIU Foundational Studies Writing Requirement.

#### **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 MVCC advisor, verify general education

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



requirements in the NIU Undergraduate Catalog, and check the NIU Community College Articulation Tables for transferability.

## **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 **Mechanical Engineering**:

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MEE 212	Mechanics of Materials	
MEE 320	Mechanism Design and Analysis	
MEE 321	Mechanical Vibrations I	
MEE 322 OR	Dynamic Systems and Control I  OR	
ELE 380	Control Systems I	
MEE 330	Materials Science	
MEE 331	Manufacturing Processes	
MEE 340	Fluid Mechanics	
MEE 350	Engineering Thermodynamics	
MEE 352	Heat Transfer	
MEE 380 OR	Computational Methods in Engineering Design OR	
MEE 381	Computational Methods and Programming in Engineering Design	
MEE 390	Experimental Methods in Mechanical Engineering I	
MEE 430	Computer-Aided Design and Manufacturing	
MEE 452	Design of Thermal Systems	
MEE 470	Design of Machine Elements	
MEE 481	Engineering Design Seminar	
MEE 482	Senior Mechanical Engineering Design Project	
MEE 494	Mechanical Engineering Competency	
ELE 210	Engineering Circuit Analysis	
ELE 210U	Engineering Circuit Laboratory Project	
ISYE 220	Engineering Economy	
ISYE 335	Probability and Statistics for Engineers	
OR STAT 350	OR Introduction to Probability and Statistics	
UEET 101	Introduction to Engineering	

A total of three technical electives from Group-A and Group-B, with at least two from Group-A:



**Group-A:** Design-oriented electives: MEE 351, MEE 410, MEE 421, MEE 422, MEE 423, MEE 424, MEE 425, MEE 426, MEE 431, MEE 432, MEE 433, MEE 451, MEE 453, MEE 454, MEE 455, MEE 480, MEE 484, MEE 490.

Group-B: Other electives: ISYE 430, ISYE 431, ISYE 439, ISYE 450, ISYE 451.

#### For More Information

Department of Mechanical Engineering CEET EB 226 Northern Illinois University DeKalb, IL 60115-2854 (815) 753-9979

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

### For undergraduate application materials, contact:

Office of Admissions Northern Illinois University DeKalb, IL 60115-2857 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 Moraine Valley Community College, contact: Academic Advising at (708) 974-5721 or <a href="mailto:advising@morainevalley.edu">advising@morainevalley.edu</a>.

**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 2016.