City Colleges of Chicago 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 in Engineering Science (AES) Degree is highly recommended [1]. Students should always work closely with their community college advisor.

Courses at City Colleges of Chicago

| Courses at City Colleges of Chicago | | Equivalent courses at NIU |
|-------------------------------------|---|---|
| *SPEECH 101 | Fundamentals of Speech Communication | COMS 100 |
| **ENGLISH 101 | Composition | ENGL 103 |
| **ENGLISH 102 | Composition II | ENGL 203 |
| CHEM 201 | General Chemistry I | CHEM 210 and CHEM 212 |
| CIS 142 AND CIS 242 | C-Based Programming Language AND Advanced C or C++ Language | CSCI 240 and CSCI 241 (only 240 required for MEE) |
| MATH 207 | Calculus & Analytic Geometry I | MATH 229 |
| MATH 208 | Calculus & Analytic Geometry II | MATH 230 |
| MATH 209 | Calculus & Analytic Geometry III | MATH 232 |
| MATH 210 | Differential Equations | MATH 336 |
| PHYSICS 235 | Engineering Physics I: Mechanics and Wave Motion | PHYS 253 |
| PHYSICS 236 | Engineering Physics II: Electricity and Magnetism | PHYS 273 |
| ENGR 131 | Engineering Graphics and Intro to Design | MEE 270 |
| PHYSICS 215 | Statics | MEE 210 |
| PHYSICS 216 | Dynamics | MEE 211 |
| ENGR 215 | Electrical Circuit Analysis | ELE 210 and ELE 210U |
| ENGR 111 | Intro to the Engineering Profession | UEET 101 |
| | | |

^{*}Satisfies NIU Foundational Studies Oral Communication Requirement.

^{**}Satisfies NIU Foundational Studies Writing Requirement.

^[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 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.

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**:

| MEE 212 | Mechanics of Materials | |
|--------------------------|--|--|
| MEE 320 | Mechanism Design and Analysis | |
| MEE 321 | Mechanical Vibrations I | |
| MEE 322 OR ELE 380 | Dynamic Systems and Control I OR 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 MEE 381 | Computational Methods in Engineering Design OR Computational Methods and Programming in Engineering Design | |
| MEE 390 | Experimental Methods in Mechanical Engineering I | |
| MEE 430 | Computer-Aided Design and Manufacturing | |
| MEE 383 | Engineering Analysis | |
| MEE 470 | Design of Machine Elements | |
| MEE 485 | Senior Mechanical Engineering Design I | |
| MEE 486 | Senior Mechanical Engineering Design II | |
| ISYE 220 | Engineering Economy | |

A total of 15-18 hours of technical electives

In addition to the courses listed above, students are required to complete 15-18 hours of electives within CEET. Specific electives will be reviewed with student's assigned faculty advisor and academic catalog.



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.

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 2018.