COLLEGE OF ENGINEERING

General Information

Engineering Student Services
107 Peter Kiewit Institute
1110 South 67th Street
Omaha, NE 68182
402.554.3562

Website (http://engineering.unl.edu/)

Role and Mission

The College of Engineering enthusiastically embraces its unique role as the singular intellectual and cultural resource for engineering instruction, research and outreach within the state. It provides the people of Nebraska with comprehensive engineering academic programs to fulfill their highest aspirations and ambitions.

The mission of the College of Engineering at the University of Nebraska is to:

• Deliver relevant and challenging educational programs to attract an outstanding diverse student body;
• Prepare graduates for rewarding careers in their chosen professions, and encourage graduates to extend their level of knowledge through lifelong learning;
• Conduct leading-edge research advances engineering science, and stimulate the intellectual development and creativity of both students and faculty; and,
• Extend exemplary engineering service and transfer knowledge that contributes to the well-being and betterment of society.

About the College

The College of Engineering is located on three campuses (Lincoln City Campus, Lincoln East Campus, and Scott Campus in Omaha), and has two Dean’s Offices, 114 Othmer Hall in Lincoln and 100 Peter Kiewit Institute in Omaha. The College is subdivided into units, each under the leadership of a chairperson, department head, or director. There are six degree programs offered on the Scott Campus in Omaha. Degree programs based in Omaha are described in this catalog. In addition, the first two years of three additional engineering programs can be taken in Omaha with the remainder of those programs to be completed at Lincoln or elsewhere. Students interested in these additional fields should refer to the undergraduate bulletin of the University of Nebraska-Lincoln for a comprehensive description of total degree requirements.

To meet the need for well-rounded engineers, the College’s engineering programs offer broad education in the physical sciences, social sciences, mathematics, information sciences and humanities. This education is complemented by study in engineering methods of modeling, analysis, synthesis and design in students’ areas of specialization. In addition to preparing students for careers in engineering, bachelor degree programs in engineering provide excellent preparation for graduate study in engineering.

Currently, there are five bachelor of science degree programs in engineering which can be completed in four years of full-time study on the Scott Campus in Omaha. These programs are architectural engineering, civil engineering, computer engineering, construction engineering, and electrical engineering. In addition, first and second-year course work is available on the Scott Campus that satisfies program requirements in agricultural engineering, biological systems engineering, and mechanical engineering offered by the College of Engineering on City Campus in Lincoln.

The bachelor degrees in agricultural engineering, biological systems engineering, chemical engineering, civil engineering (Lincoln and Scott Campuses), computer engineering (Scott Campus), computer engineering (City Campus), construction engineering (Lincoln and Scott Campuses), electrical engineering (Lincoln and Scott Campuses), and mechanical engineering programs are accredited by the Engineering Accreditation Commission (EAC) of ABET, Inc., website (http://www.abet.org/). The master of architectural engineering is also accredited by EAC of ABET.

The Charles W. Durham School of Architectural Engineering and Construction offers three undergraduate programs: Architectural Engineering, Construction Engineering and Construction Management. These programs are described elsewhere in this section of the undergraduate catalog.

The construction management program provides intensive technical and management related applications of principles and procedures utilized in the construction industry. The program prepares graduates for activities and positions that support a broad range of construction related functions and operations. Graduates find richly rewarding careers in a wide variety of construction organizations, having responsibilities for planning, scheduling and building the projects designed by architects and engineers. The construction management program (Lincoln and Scott Campuses) is accredited by the American Council for Construction Education, website (http://www.acce-hq.org/) and the Applied and Natural Science Accreditation Commission (ANSAC) of ABET.

For more information visit (https://engineering.unl.edu/).

General College Policies

These policies are applicable to all students in the College of Engineering.

• Student priority for entrance into classes for which demand exceeds available class space will be based on cumulative GPA. This priority will be applied at the end of early registration (when applicable).
• Students may withdraw from a maximum of four engineering courses. Students may withdraw from any one engineering course a maximum of one time.
• Students may repeat a maximum of three engineering courses. Students may complete any one engineering course a maximum of two times.
• All students must have a College of Engineering advisor’s, chairperson’s or dean’s signature on all worksheets, enrollment and drop-add forms. Any subsequent changes on these forms, or in enrollment from those courses previously approved, must also be approved by an advisor, chairperson or dean.
• At least 30 of the last 36 credits needed for a degree must be registered for and completed at UNO or UNL while identified with the College of Engineering. This means that, practically speaking, the last year of a student’s work must be spent in residence. Credit earned during education abroad may be used toward degree requirements if students participate in prior approved programs and register through the University of Nebraska Omaha (see https://www.unomaha.edu//international-studies-and-programs/study-abroad/index.php (https://www.unomaha.edu/international-studies-and-programs/study-abroad/))
• Effective with the Fall semester 2011, students entering a baccalaureate program in the College of Engineering on the Omaha campus must satisfy the Achievement Centered Education (ACE) requirements of the University of Nebraska-Lincoln as part of their degree requirements.
• Credit/No Credit courses: Students in the College of Engineering must take ENGR 100 Freshman Engineering Seminar, ENGR 200 Sophomore Engineering Seminar, and ENGR 4000 Professional Ethics and Social Responsibilities with the grading option Credit/No Credit. In addition, students may take up to 12 credit hours of courses in the humanities and social sciences on a Credit/No Credit basis. Students in the College
of Engineering may not take any other required courses or technical elective courses with the grading option of Credit/No Credit.

- Credits for “Intensive English Program” at UNL and “English as a Second Language” at UNO are not applicable to degree programs in the College of Engineering.

- Students who are officially accepted into the College of Engineering under the academic year (Fall, Spring, Summer) of this catalog and maintain continuous enrollment must fulfill the requirements as stated in this UNO Undergraduate Catalog (or UNL Catalog when applicable) or in any other UNO Catalog which is published while they are enrolled in the College, provided that the catalog is no more than ten (10) years old at the time of graduation. A student must, however, meet the graduation requirements from one catalog only. A student may not choose a portion from one catalog and the remainder from another catalog. Additional departmental and program based conditions and requirements may apply.

- The College of Engineering does not accept courses for transfer from outside the University of Nebraska system (UNK, UNL, or UNO) in which a grade less than “C” is received.

- Subject to space availability, any student with a cumulative GPA less than 2.40 may enroll in AE 1010, CNST 1310, CIVE 112, CONE 1030, and ECEN 2250 providing they have permission from the College of Engineering and their enrollment does not violate course repeat policies of the College of Engineering. Similarly, students who have College of Engineering permission, do not violate College of Engineering course repeat policies, have the appropriate course prerequisites and whose cumulative GPA is above 2.0 may enroll in, ENGR 2200, ENGR 3240, and ENGR 3000.

- Excluding exemptions specified under the student classification and general college policy sections, a minimum cumulative GPA of at least 2.40 is required to enroll in engineering and construction management courses.

**Catalog to Use**

Students must fulfill the requirements stated in the catalog for the academic year in which they are first admitted at the University of Nebraska-Lincoln. In consultation with advisors, a student may choose to follow a subsequent catalog for any academic year in which they are admitted to and enrolled as a degree-seeking student at Nebraska in the College of Engineering. Students must complete all degree requirements from a single catalog year. The catalog which a student follows for degree requirements may not be more than 10 years old at the time of graduation.

**Life-Long Learning**

The education of professionals in engineering and construction management is a continuing process. The groundwork in both technical and nontechnical studies is laid while in college, but education continues after the day of graduation. For a professional, education will continue not only in the technical areas but in areas that relate to human and social concerns. A professional may expect to take a leadership role in the community and must have a broad awareness of human and social accomplishments, needs, values, and a willingness to take the responsibility for meeting these needs. For these reasons, an integrated program of course work in the humanities and social sciences is part of the educational requirements.

**Other College Information**

**Application for the Diploma**

Each student who expects to receive a diploma must file an application for candidacy for the diploma on-line on MavLINK. Announcements about deadline dates are posted on the University of Nebraska Omaha’s (UNO) Academic Calendar webpage, Maverick Weekly email to students, and by an email sent by the UNO Registrar’s office.

It is the responsibility of the students to inform the Registrar’s Office of their graduation plans including their mailing address and the manner in which they are completing their requirements.

Failure to meet these stipulations may necessitate postponement of graduation until the next semester.

**Graduation with Distinction**

Students with outstanding scholastic records may obtain the College special honor of graduation WITH DISTINCTION, with HIGH DISTINCTION, or HIGHEST DISTINCTION upon the recommendation of the faculty of the College. Check with your major department for specific requirements.

**Professional Licensure**

The College encourages students to seek professional licensure. The majority of the College’s engineering seniors take the Fundamentals of Engineering (FE) examination prior to graduation. This examination is administered by the Nebraska Board of Engineers and Architects, a state agency, and is the first step in the process of becoming a licensed professional engineer. To become a licensed professional engineer, one must pass the FE exam, have four years of experience, and pass a professional practice examination. Students may take the FE exam in the last semester of their engineering baccalaureate program. Arrangements are made online (https://ncees.org/).

**Academic Amnesty and Appeals**

The following policies shall apply for academic amnesty, appeals of course grades, and appeals of academic suspension.

**Academic Amnesty**

A student may remove one or more full semesters of work from degree consideration by applying to the Office of the Dean after either completing a minimum of 15 simultaneous or sequential credit hours with at least a 3.0 grade point average or 30 hours with at least a 2.5 grade point average at the University of Nebraska Omaha following the semester(s) the student wishes to remove. The application will be forwarded to the campus College Academic Appeals Committee for review and approval, if appropriate.

**Appeals of Course Grades**

In the event of a dispute involving grades, the student should appeal to his/her instructor, and appropriate department chair or school director (in that order). If a satisfactory solution is not achieved, students who have a valid cause for appealing a grade for a course may file a written appeal with the Office of the Dean. Appeals must be filed within 21 days after the date of electronic posting of the grades by the Registrar for the semester in which the appealed grade was earned. Appeals will be forwarded to the campus College Academic Appeals Committee for consideration.

**Appeals of Academic Suspension**

Appeals of academic suspension must be filed in writing with the Office of the Dean within 21 days after official electronic notification/posting of the grades by the Registrar for the semester at the end of which the suspension was invoked. Suspended students who have filed a notice of appeal may apply to the Office of the Dean for a temporary release from suspension pending the final disposition of their appeal by the Academic Appeals Committee of the College of Engineering.

**Regulations**

The college and its various divisions and departments reserve the right to change the rules governing admission to, instruction in, and graduation from the college or its various divisions.

Such regulations are operative whenever the college authorities deem necessary and apply not only to prospective students but also to those currently enrolled in the college. The college also reserves the right to withdraw courses and to reassign instructors.
Prerequisites for courses offered in the college are effective even if they are not listed in the schedule. A maximum amount of credit that a student may enroll in during any semester is 18 credit hours without the Dean’s permission to override the maximum.

**Admission and Academic Policies**

These policies are subject to change. Students should consult their adviser, their department chair, or Engineering Student Services, if they have questions on current policies.

**College Entrance Requirements**

Students must have high school credit for (one unit is equal to one high school year):

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Trigonometry and pre-calculus</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Algebra</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Geometry</td>
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<td>1</td>
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<td>Physics</td>
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<td>Chemistry</td>
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<td>Natural Science</td>
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<td>1</td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Social Studies</td>
<td></td>
<td>3</td>
</tr>
</tbody>
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1 A second unit of natural science may be used in place of chemistry for construction management applicants.

- In addition to the specific high school unit requirements listed previously, students are expected to meet core course requirements as specified for admission by the University of Nebraska-Lincoln.
- Students having composite ACT scores of 28 or greater (or equivalent SAT score) will be admitted to the College of Engineering even if they lack one unit of the following: trigonometry, chemistry, or physics.
- Students who transfer to the University of Nebraska from other accredited colleges or universities and wish to be admitted to the College of Engineering (ENGR) must meet ENGR freshman entrance requirements, have a minimum cumulative GPA of 2.5 and be calculus-ready. Students not meeting all of these requirements will be enrolled as Pre-Engineering students until they meet ENGR admission requirements. Students transferring from UNO, UNL, or UNK to the College of Engineering must be in good academic standing with their institution.
- The ENGR accepts courses for transfer for which a C or better grade was received. Although the University of Nebraska-Lincoln accepts D grades from the University of Kearney, Lincoln, and Omaha, not all majors in the ENGR accept such low grades. Students must conform to the requirements of their intended major and, in any case, are strongly encouraged to repeat courses with a grade of C- or less.
- Students must have a composite ACT (enhanced) score of 24 or greater (or an equivalent SAT). Exception: transfer and readmitted students with 12 or more earned collegiate semester credit hours.
- Entering students are required to have appropriate math, English and chemistry placement examination results prior to their first semester of enrollment.
- Students for whom English is not their language of nurture must score a minimum of 523 on the TOEFL before admission will be considered.
- Students with substantial potential to perform college-level academic work, but lack college entrance requirements may be admitted to the college with pre-engineering status based on ACT score, high school rank, and high school credits. These students are accepted on a provisional or trial basis for the purpose of establishing their academic credential and firming up their career objectives. Pre-engineering students may take freshman and sophomore-level courses in the College of Engineering. Students may be reclassified from pre-engineering to restricted status when their accumulative GPA falls below 2.4.

All transfer students must adopt the curricular requirements of the undergraduate catalog current at the time of transfer to the ENGR – not that in use when they entered the University of Nebraska – Omaha. Upon admission to UNL College of Engineering, students wishing to pursue degree programs in ENGR will be classified and subject to the policies defined in the page.

Transfer students who have attended a two-year community college transfer program in engineering should meet with an advisor to consider all options available to him/her. All prospective students are invited to visit the campus and meet with an advisor.

Students who were previously admitted to ENGR and are returning to the College of Engineering must demonstrate a cumulative GPA of 2.5 in order to be readmitted to ENGR.

**Standing/Classification/Professional Admission**

Professional admission to a student’s degree program is a requirement for graduation from that program.

**Pre-Engineering Students**

These are students who aspire to enter a College of Engineering degree program but who are not immediately admitted due to not meeting one or more admission criteria such as required high school mathematics, chemistry or physics course(s), ACT, or other qualifications. These students may enroll in ENGR 100 Freshman Engineering Seminar and 1000-level engineering courses provided they meet the prerequisites on a space-available basis. Once the student has earned a 2.5 cumulative GPA in at least 12 credits hours and has removed all entrance deficiencies, they will be admitted to the College of Engineering in their degree program.

After being admitted to their degree program in the College of Engineering, students will be classified as described below.

**Pre-Professionally Admitted College of Engineering Students**

These students may register in engineering courses where they meet all prerequisites or have permission. A professionally admitted student who wishes to transfer from one College of Engineering major to another will need to undergo Professional Admission review by the new major, subject to the admission criteria of the new major.

Professional admission must be earned by a student in order to move from pre-professionally admitted status to professionally admitted status within the College of Engineering. A review of the student’s academic history is completed by the department of the student’s intended major after the student has completed at least 43 credit hours within his or her intended degree program. Additional review criteria are based on the individual degree program and can be found under that major’s information in the undergraduate catalog.

A student may be reviewed up to two times for Professional Admission in a single major. If the student is rejected for Professional Admission on the second review, the student will not be allowed to continue in that major. The student may choose to pursue a new College of Engineering major but will be subject to the review criteria of the new major. If the student is rejected for Professional Admission by the new major, the student will be dismissed from the College of Engineering. Further reviews for Professional Admission will not be allowed and the student will no longer be eligible to enroll in College of Engineering courses.

**College Probation**

A student who receives a cumulative grade point average (GPA) of less than a 2.4 will be placed on college probation. The student will remain on probation until a semester is completed with a cumulative GPA at or above
2.4. Any student with three sequential semesters on college probation will be dismissed from the College of Engineering.

The first semester of probation is defined as the semester in which failure to meet a cumulative GPA of 2.4 occurs.

Completion of the following semester with a semester GPA above 2.4 is required for a student to be removed from college probation. Students may be placed on college probation (or dismissed) for violation of the UNL Student Code of Conduct at any time. A student cannot graduate from the College of Engineering while on college probation.

College Dismissal
A student will be dismissed from the College of Engineering at the end of any semester in which:

• The student has earned college probation for three sequential semesters.
• The student is suspended by UNO.

Students may also be dismissed for violating the University of Nebraska-Lincoln or University of Nebraska-Omaha Student Code of Conduct at any time. College dismissal will cause an administrative change in the student’s matriculation to dismissed status or to a different college if indicated by the student. Students who have been dismissed from the College of Engineering may be readmitted (one time only) provided they have removed all academic deficiencies that lead to dismissal.

College of Engineering Programs

Engineering
Architectural Engineering
• B.S. Degree Program (http://catalog.unomaha.edu/undergraduate/college-engineering/bs-architectural-engineering/)

Civil Engineering
• B.S. Degree Program (http://catalog.unomaha.edu/undergraduate/college-engineering/civil-engineering-bs/)

Computer Engineering
• B.S. Degree Program (http://catalog.unomaha.edu/undergraduate/college-engineering/electrical-computer-engineering/computer-engineering-bs/)

Construction Engineering
• B.S. Degree Program (http://catalog.unomaha.edu/undergraduate/college-engineering/construction/construction-engineering-bs/)

Construction Management
• B.S. Degree Program (https://catalog.unomaha.edu/undergraduate/college-engineering/construction/construction-management-bs/)

Electrical Engineering
• B.S. Degree Program (http://catalog.unomaha.edu/undergraduate/college-engineering/electrical-computer-engineering/electrical-engineering-bs/)

First two years of:
• Agricultural Engineering (http://catalog.unomaha.edu/undergraduate/college-engineering/pre-engineering/pre-agricultural-engineering/)
• Biological Systems Engineering (http://catalog.unomaha.edu/undergraduate/college-engineering/pre-engineering/pre-biological-systems-engineering/)

• Mechanical Engineering (http://catalog.unomaha.edu/undergraduate/college-engineering/pre-engineering/pre-mechanical-engineering/)

Graduate Programs
A variety of graduate programs in engineering and construction management are available. For details on programs leading to masters and doctorate degrees, including the application process, individuals should contact the appropriate department or office of the dean in the College of Engineering. Application forms are available at http://www.unl.edu/gradstudies (http://www.unl.edu/gradstudies/).

Minors & Areas of Specializations Offered
College faculty encourage students to minor in a discipline outside the College of Engineering to further develop critical thinking skills, curiosity, understanding of the connections between engineering and the social or natural sciences and fine arts, and sensitivity to ethical issues.

Policies
1. A minor will not reduce or alter the existing course or degree requirements for students electing to pursue a minor.

2. A student’s minor program(s) must be reviewed by an advisor prior to the submission of the senior check to the department chair or head. It is the responsibility of the student to determine that all requirements for the minor are met.

3. The minor(s) must be approved by the cognizant program offering the minor(s).

4. Departments may restrict students in their major(s) from obtaining certain minor(s) at their discretion; see the catalog entry for individual majors for details.