Did you know...?

Companies and universities are using engineers to form the Virtual Reality and Simulation Initiative. This technology applies computer simulation and visualization to 3-D modeling projects, such as virtual offices.

National Society of Professional Engineers’ article “10 Fun and Exciting Facts about Engineering.”

Alumni profile

“"I knew I wanted to pursue engineering my senior year of high school, after taking AP calculus. I wasn’t very good at it, but it was my first realization that math could indeed be a very useful tool and powerful language by which to model the real world, or anything in it,” said Tyler Troyer, a Kearney native.

“I was told that engineers design and create the technology around us. When put this way, it sounds like an optimal mixture of being nerdy and also highly creative,” he said.

After classes at UNK he continued to University of Nebraska-Lincoln and received a degree in electrical engineering with an emphasis on circuits and embedded systems.

“My favorite courses were the ones with labs, where we actually put circuits on breadboards (a board meant to help create experimental models of electric circuits) and scoped into the signals flowing through them. Those courses make me a better engineer”

2+2 ENGINEERING FOUNDATIONS PROGRAM

The Engineering Foundations 2+2 program is structured so students who spend two years in the Engineering Foundations program at UNK and two years in the College of Engineering at UNL will be eligible to attain a bachelor’s degree in Engineering from UNL.

You will gain a strong background for engineering while taking the recommended general courses in physics, chemistry and math before transferring to UNL or any ABET-accredited engineering school. A student can then specialize in a wide variety of engineering fields such as civil, electrical, mechanical, chemical or other intensive areas.

Essential Skills in Engineering:

- Problem solving
- Brainstorming
- Analytical thinking
- Modeling and prototyping
- Optimization
- Communication

Engineering Habits of Mind

Habits of mind are traits or ways of thinking that affect how a person looks at the world or reacts to a challenge.

- Creativity
- Optimism
- Persistence
- Systems thinking
- Conscientiousness
- Collaboration
Society of Physics Students

The Society of Physics Students is a professional association open to anyone interested in physics. Within SPS is the national physics honor society, Sigma Pi Sigma, for members who have demonstrated outstanding academic achievement.

- Biweekly meetings
- Community-building events
- Physics conferences
- SPS/Sigma Pi Sigma banquet
- School science fair judging
- High school senior recruiting days
- Movie nights in the UNK planetarium

Scholarships available

- Liehs UNK Scholarship
- Beckmann Scholarship
- Royal Engineered Composites Scholarship

F.Y.I – For your information

High school students thinking about studying physics in college should take as many advanced classes as possible in science and math. This will provide a foundation for college coursework.

UNK physics graduates find employment in industrial settings and government labs, or on college campuses, as well as in other science and technology fields. Unconventional settings include newspapers and magazines, and in government or business – any place where problem-solving and analytical skills are great assets.

You can be part of the UNK experience

For more information, contact:
UNK Engineering Foundations Program
Physics & Astronomy Department
University of Nebraska at Kearney
Bruner Hall of Science
(308) 865-8277
engineering@unk.edu
www.unk.edu/engineer

Engineering Foundations 2+2 Program

Two Year Class Schedule

The schedule is a guideline. Consult with your academic adviser.

<table>
<thead>
<tr>
<th>Semester 1 (15 credits)</th>
<th>Semester 2 (16 credits)</th>
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<tbody>
<tr>
<td>CHEM 160/160L General Chemistry I</td>
<td>CHEM 161/161L General Chemistry II</td>
</tr>
<tr>
<td>MATH 115 Calculus I</td>
<td>MATH 202 Calculus II</td>
</tr>
<tr>
<td>ENG 102 Academic Writing and Research</td>
<td>PHYS 275/275L General Physics I</td>
</tr>
<tr>
<td>ENGR 101 Intro to Engineering</td>
<td>SPCH 100 Fundamentals of Speech</td>
</tr>
<tr>
<td>Semester 3 (15 credits)</td>
<td>Semester 4 (12 credits)</td>
</tr>
<tr>
<td>PHYS 213 or STAT 441</td>
<td>GS Social Science (SS ACE 6)</td>
</tr>
<tr>
<td>PHYS 277 Engineering Mechanics</td>
<td>CSIT 112 Programming in C</td>
</tr>
<tr>
<td>MATH 260 Calculus III</td>
<td>Circuits 2 OR Mechanics of Materials</td>
</tr>
<tr>
<td>PHYS 276/276L General Physics II</td>
<td>Engineering Dynamics</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
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Photos by Lani Jensen Photography