I have always had the desire to make a difference in the world, and for me becoming an engineer would be the way I would accomplish this,” said Andrea Vargas, an international student from Colombia, South America, in the pre-engineering program.

“I saw UNK as the perfect platform to set the bases and pillars that would help build my career,” Vargas said.

“What I like the most about the physics department is that teachers are always there to help you no matter what. I have had great teachers throughout the years that have led me to not only pass the class, but to understand it. ”

Attending UNK has changed Vargas in ways she never imagined. “UNK and Kearney might seem small, but it is amazing how such a small place can make such a huge impact in your life. The people and friends I have made along the way have been one of the best parts. I would definitely and highly recommend UNK. It’s the best decision I have ever made.”

At UNK, the pre-engineering program is based on math and science. In a welcoming environment, expert professors are able to give you personal attention because of the low student-to-faculty ratio in the classroom.

You will gain a strong background for engineering while taking the recommended general courses in physics, chemistry and math before transferring to 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.

Traits needed in pre-engineering
- “Eats, lives and breathes” science
- Conquers math successfully
- Naturally curious
- Shows attention to detail
- Communicates well
- Develops innovative solutions
- Thinks logically
- Solves problems creatively
- Understands teamwork
- Continues to learn

Modern technology is physics-based. Any technology using electricity, magnetism, mechanics, heat, light, sound or optics comes from physics.

Student profile

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Did you know?

Student-faculty relationships are a hallmark of the UNK experience.

Faculty interact on a personal basis with students as teachers, advisers, mentors and friends both inside and outside the classroom, and from your freshman year to graduation and beyond.
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

- Donald L. Liehs Scholarship Endowment
- Dr. Mary L. Morse Memorial Scholarship
- James W. Nielsen Memorial Scholarship
- Elmer H. and Marian L. Beckman 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

PRE-ENGINEERING
TWO YEAR CLASS SCHEDULE
The schedule is a guideline. Consult with your academic adviser.

<table>
<thead>
<tr>
<th>Semester 1 (16 credits)</th>
<th>Semester 2 (16 credits)</th>
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<tbody>
<tr>
<td>PHYS 275/275L General Physics I</td>
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<tr>
<td>MATH 115 Calculus I</td>
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<td>Portal 188 (your choice)</td>
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<td>General Studies English 102</td>
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<td>PHYS 276/276L General Physics II</td>
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<td>MATH 202 Calculus II</td>
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<td>General Studies Oral Communication</td>
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<td>General Studies Democracy</td>
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<th>Semester 3 (16 credits)</th>
<th>Semester 4 (16 credits)</th>
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<td>PHYS 346 Modern Physics</td>
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<td>MATH 260 Calculus 3</td>
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<td>CHEM 160/160L General Chemistry I</td>
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<td>General Studies Humanities</td>
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<td>Capstone 388 (your choice)</td>
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<td>PHYS 277 Eng. Statistics</td>
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<td>Math305 ODE</td>
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<tr>
<td>CHEM 161/161L General Chemistry II</td>
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The pre-engineering program at UNK includes two years of coursework before a student can apply to any ABET-accredited engineering school. Completing the recommended coursework does not guarantee admittance into engineering school.

For more information, contact:
Dr. Kenneth W. Trantham
Associate professor and chair
Physics and physical science
Bruner Hall, office 221
(308) 865-8278
tranthamkw@unk.edu

PHYS - 0214

Photo by Lani Jensen Photography