Computer Science Comprehensive

Students majoring in the Computer Science Comprehensive program at the University of Nebraska at Kearney learn to use computer science with advanced mathematics to develop innovative software solutions. Students work collaboratively as they creatively design, develop, and implement software solutions, such as mobile apps, games and robotics solutions and gain real-world experience by completing hand-on projects.

The computer science curriculum is continually updated to keep pace with changing industry needs and practices so students graduate with skills that are in demand in today’s job market, are prepared for a career in software development/research, or ready for graduate school.

Studying Computer Science is great training for a variety of careers. After graduating, you will qualify for positions as a:

- Information security engineer
- Database or network administrator
- Information technology consultant
- Computer hardware architect
- Computer programmer
- Software engineer
- Application developer
- Web developer

Did you know UNK offers the only Information Technology Bachelor of Science program in Nebraska?

Department profile

Students in Computer Science and Information Technology design, build and program robots to compete in an annual robotics competition. The spring 2014 semester competition was “Tilt-a-Hurl,” a three-point basketball shooting event.

“In the implementation of their autonomous robots, student teams use advanced programming techniques and design their robots to respond to various sensors, including gyro, tach, touch and light sensors,” said Sherri Harms, chair of the Department of Computer Science and Information Systems at UNK.

“Students must develop the interplay between the physical design of their robot and the mental capacity they programmed into the robot in solving a problem,” Harms added.

Some students also compete in a regional competition in Wisconsin that includes students from a seven-state area. UNK won the 2013 regional competition.

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I really enjoyed having smaller class sizes, as I was not just a number in an ocean of students. I felt the professors really cared about my education and took time to meet one-on-one for any help I needed. The best education I received at UNK was learning how to learn. I wasn’t handed answers to my many questions. Instead, my professors encouraged me to dig deeper and look closer at the problem at hand to find the solution. This was by far the greatest asset going into my career as a CS security professional. UNK provided me with a solid foundation of knowledge as well as the skills to learn on my own and truly succeed in the real world.

Casey Glatter, computer science major, telecommunications minor, graduated in May 2010 and is employed at Sandia National Laboratories working in cybersecurity research and development of critical infrastructure systems.
# ALUMNI PROFILE

*Brian Flannery*

2011 UNK graduate
Computer Science/Mathematics
Software developer at Epic in Madison, Wis.

“When I came to UNK, I was unsure what I wanted to do. When I took my first computer science course as part of my general studies requirements I knew I had found my new major. The faculty and staff of the CSIT department taught me everything I needed to know to be a successful programmer and provided me the professional networking that helped me start my career before I even graduated.”

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## Computer Science Comprehensive: Bachelor of Science

**FOUR YEAR CLASS SCHEDULE**
The schedule is a guideline for progress toward a degree. Consult with your academic advisor.

<table>
<thead>
<tr>
<th>Semester 1 (15 credits)</th>
<th>Semester 2 (17 credits)</th>
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<tbody>
<tr>
<td>CSIS 130GS Intro to Computer</td>
<td>CSIS 150 00 Programming</td>
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<tr>
<td>Math 115 Calculus I</td>
<td>CSIS 180 Discrete Structures</td>
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<tr>
<td>English 101 Expository Writing</td>
<td>Math 202 Calculus II</td>
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<tr>
<td>Portal 188 of your choice</td>
<td>English 102 Expository Writing</td>
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<td>Natural Science elective</td>
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<tr>
<th>Semester 3 (15 credits)</th>
<th>Semester 4 (15 credits)</th>
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<tbody>
<tr>
<td>CSIS 330 DS &amp; Algs</td>
<td>CSIS 441 Artificial Intelligence</td>
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<tr>
<td>Math 260 Calculus III</td>
<td>CSIS 301 CS Computer Organization</td>
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<tr>
<td>Speech 100 Fundamentals of Speech</td>
<td>Math 440 Linear Alg</td>
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<tr>
<td>Natural Science Lab elective</td>
<td>Democracy elective</td>
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<td>Humanities elective</td>
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<tr>
<th>Semester 5 (15 credits)</th>
<th>Semester 6 (15 credits)</th>
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<tbody>
<tr>
<td>CSIS 401 Operating Systems</td>
<td>CSIS 404 Software Engineering</td>
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<tr>
<td>CSIS 425 Database Systems</td>
<td>CSIS, Math, Stat, Phy elective</td>
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<tr>
<td>CSIS, Math, Stat, Phy elective</td>
<td>Math 420 Num Anal</td>
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<tr>
<td>Aesthetics elective</td>
<td>Social Science elective</td>
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<tr>
<td>Humanities elective</td>
<td>General elective</td>
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<tr>
<th>Semester 7 (15 credits)</th>
<th>Semester 8 (13 credits)</th>
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<tr>
<td>CSIS 402 Finite Automata</td>
<td>CSIS 408 Programming Languages</td>
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<tr>
<td>CSIS 496 CS Seminar</td>
<td>CSIS, Math, Stat, Phy elective</td>
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<tr>
<td>Capstone 388 of choice</td>
<td>STAT 441 Prob &amp; Stats</td>
</tr>
<tr>
<td>Soc Science elective</td>
<td>General elective</td>
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<tr>
<td>General studies elective</td>
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**Association for Computing Machinery**

(An organization for CSIT majors)

**Activities at the local level**
- Guest speakers invited to campus
- Sponsor of Disinfection Day
- Tours of business IT departments and data centers

**...and at the national level**
- Yearly conference hosted
- Journal, magazine and newsletter publications provided to enrich a student’s education

**Personal traits for CSIT success:**
- Solves problems
- Thinks at multiple levels
- Adapts to new technology
- Works professionally
- Collaborates
- Perseveres
- Communicates clearly (oral/written)

**Scholarships available:**

**Freshman scholarship**
- The Buckle scholarship

**Continuing Student scholarships**
- Northwestern scholarship
- Buckle Continuing scholarship
- Association for Computing Machinery

**Reasons to choose CSIT at UNK:**
- 100% job placement for dedicated students
- Extensive partnerships with businesses
- Low instructor/student ratio
- Hands-on practical experience
- Mobile application, gaming, and robotics development
- One-on-one attention from award winning professors
- Professional certification and online education opportunities
- High rate of acceptance into grad schools

For more information, contact:
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Contact: harmssk@unk.edu or 308.865.8370