COMPUTER SCIENCE
COMPREHENSIVE, BACHELOR
OF SCIENCE

Offered by Department of Computer Science and Information Technology
(http://catalog.unk.edu/undergraduate/departments-programs/computer-science-information-technology)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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General Studies

Foundational Core (Written, Math, Oral, Democracy)

Foundational Core courses (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses) 14
Including:

- MATH 115 Calculus I with Analytic Geometry

Portal

Select one course numbered 188 (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/portal-course) 3

Distribution

Aesthetics (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/aesthetics) 3

Humanities (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/humanities) 6

Social Sciences (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/social-sciences) 6

Natural Sciences (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/natural-sciences) 7

Analytical and Quantitative Thought (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/analytical-quantitative-thought) 4
Including:

- CSIT 130 Introduction to Computer Science

Wellness (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/wellness) 0

Needed to reach 27 credit hour minimum in Distribution 1

Capstone

Select one course numbered 388 (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/capstone-course) 3

BS Science-related course requirements

Take 1 course from the following:

- STAT 241 Elementary Statistics
- STAT 345 Applied Statistics I
- STAT 441 Probability and Statistics

Major Option

Complete all required courses 59

Unrestricted electives

Needed to reach 120 credit hour minimum 11

Total Credit Hours 120

A grade of "C" or above is required for all courses in this Option. In this option, prerequisites are fulfilled when the prerequisite courses have been passed with a "C" or above.

Major Option

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>CSIT 150</td>
<td>Object Oriented Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 180</td>
<td>Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 301</td>
<td>Computer Organization</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 330</td>
<td>Algorithms and Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 401</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 402</td>
<td>Introduction to Automata, Formal Languages, and Computability</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 404</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 408</td>
<td>Principles of Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 425</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 441</td>
<td>Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 496</td>
<td>Seminar in Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>MATH 202</td>
<td>Calculus II with Analytic Geometry</td>
<td>5</td>
</tr>
<tr>
<td>MATH 440</td>
<td>Linear Algebra</td>
<td>3</td>
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Computer Science Electives

Select 9 credit hours of the following:

- CSIT 300-CSIT 499 except CSIT 388, CSIT 492 - CSIT 495 3

Select 9 credit hours of the following:

- CSIT 300-CSIT 499 9

- MATH 300-MATH 499 4

- PHYS 300-PHYS 499 4

Total Credit Hours 59

1. Students without sufficient preparation will also need to take the following courses, increasing the total credit hours needed:
   - MATH 102
   - MATH 103

2. As approved by the department.

3. Except CSIT 388. Take no more than 6 credit hours from CSIT 492, CSIT 493, CSIT 494, CSIT 495

4. Except PHYS 388