COMPUTER SCIENCE APPLIED, BACHELOR OF SCIENCE DEGREE

Offered by Department of Cyber Systems (http://catalog.unl.edu/undergraduate/departments-programs/cyber-systems/)

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General Studies

**Foundational Requirements (LOPERs 1-4)**

Including:

- **LOPER 2: Writing Skills**
  - ENG 101 Introduction of Academic Writing

- **LOPER 4: Mathematics, Statistics and Quantitative Reasoning**
  - MATH 115 Calculus I with Analytic Geometry

**Broad Knowledge Requirements (LOPERs 5-8)**

**Dispositional Requirements (LOPERs 9-10)**

**Wellness (LOPER 11) Optional**

BS Science-related course requirements

Select one of the following:

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

Program-Specific Requirements

**6-7**

- ENG 102 Special Topics in Academic Writing and Research

- CYBR 101 Computer Science I: Python for Analytics
  or CYBR 102 Computer Science I: C for Security
  or CYBR 103 Computer Science I: Java for Software Development

**Major Option**

Complete all required courses

**36**

**Minor or 2nd Major**

Complete all required courses

**24**

Unrestricted electives

Needed to reach 120 credit hour minimum

**19-18**

Total Credit Hours

**120**

All courses in this major require a minimum grade of "C". In this option, prerequisites are fulfilled when the prerequisite courses have been passed with a "C" or above.

**Major Option**

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<tbody>
<tr>
<td>CYBR 150</td>
<td>Computer Science II: Object Oriented Programming</td>
<td>3</td>
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<tr>
<td>CYBR 180</td>
<td>Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>CYBR 301</td>
<td>Computer Organization</td>
<td>3</td>
</tr>
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<td>CYBR 330</td>
<td>Algorithms and Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CYBR 401</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CYBR 404</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CYBR 407</td>
<td>Introduction to Automata, Formal Languages, and Computability</td>
<td>3</td>
</tr>
<tr>
<td>CYBR 408</td>
<td>Principles of Programming Languages</td>
<td>3</td>
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<tr>
<td>CYBR 441</td>
<td>Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>CYBR 495</td>
<td>Cyber Systems Capstone</td>
<td>3</td>
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**Computer Science Electives**

Select 6 credit hours of the following with advisor approval:

- **CYBR 300-CYBR 499**

Total Credit Hours

**36**

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

2. Designated courses with the appropriate content may be approved to satisfy one of the Broad Knowledge requirements plus LOPER 9 or Broad Knowledge plus LOPER 10. Courses may be approved to satisfy LOPER 9 or LOPER 10 alone. (Courses satisfying LOPER 9 or LOPER 10 alone must be 3 credit hours.) Students applying this option will need to take additional hours in other categories to meet the required GS hours.

3. A minor or second major is required for a complete degree program. The number of required electives needed to reach 120 total credit hours overall will depend upon the specific program chosen.

4. Except CYBR 388. Take no more than 3 credit hours from CYBR 475, CYBR 494, CYBR 499.