COMPUTER SCIENCE
COMPREHENSIVE, BACHELOR
OF SCIENCE

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

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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**

- **ENG 101** Introduction of Academic Writing 3

If ENG 101 is not taken as a prerequisite for ENG 102 then additional hours may be required to meet the 27 credit hour minimum in the Distribution Area of General Studies.

**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) 4-3

Including:

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

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

**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: 3

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

**Major Option**

Complete all required courses 59

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**Computer Science Comprehensive Core Requirements**

- **CYBR 150** Computer Science II: Object Oriented Programming 3
- **CYBR 180** Discrete Structures 3
- **CYBR 301** Computer Organization 3
- **CYBR 330** Algorithms and Data Structures 3
- **CYBR 401** Operating Systems 3
- **CYBR 404** Software Engineering 3
- **CYBR 407** Introduction to Automata, Formal Languages, and Computability 3
- **CYBR 408** Principles of Programming Languages 3
- **CYBR 425** Database Systems 3
- **CYBR 441** Artificial Intelligence 3
- **CYBR 495** Cyber Systems Capstone 3
- **MATH 202** Calculus II with Analytic Geometry 5
- **MATH 440** Linear Algebra 3

**Computer Science Electives**

Select 9 credit hours of the following: 9

- **CYBR 300-CYBR 499** (except CYBR 388, CYBR 494 - CYBR 499)

Select 9 credit hours of the following: 9

- **CYBR 300-CYBR 499**
- **MATH 300-MATH 499**
- **PHYS 300-PHYS 499**
- **MATH 250** Foundations of Math
- **MATH 260** Calculus III

**Total Credit Hours** 59

Unrestricted electives

Needed to reach 120 credit hour minimum 9-10

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.

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 CYBR 388. Take no more than 6 credit hours from CYBR 475, CYBR 494, CYBR 499.

4. Except PHYS 388