# INFORMATION NETWORKING AND TELECOMMUNICATIONS COMPREHENSIVE, BACHELOR OF SCIENCE

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

All College of Business and Technology Graduation Requirements (http://catalog.unk.edu/undergraduate/departments-programs/cyber-systems) must be fulfilled.

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<tr>
<th>Code</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) 12
- Including:
  - MATH 102 College Algebra 1

## 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 taken as a prerequisite for ENG 102 then only 24 additional hours are required to meet the 27 credit hour minimum in the Distribution Area of General Studies 3
- 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
- Including:
  - CJUS 101 Introduction to Criminal Justice

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

- Select two GS courses from at least two disciplines, to include one lab course: CHEM, GEOG, and/or PHYS only 7

## Analytical and Quantitative Thought

- Analytical and Quantitative Thought (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/analytical-quantitative-thought) 3

## Capstone

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

### BS Science-related course requirements

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## Major Option

- Complete all required courses 63

## Unrestricted electives

- Needed to reach 120 credit hour minimum 8

## Total Credit Hours

- 120

Students must earn a minimum 2.5 cumulative GPA in the core courses, including any emphasis areas required.

## Information Networking and Telecommunications Core Requirements

- Take one of the following: 3-4
  - 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

- Take one of the following: 3
  - ITEC 130 Technology Today
  - or CYBR 182 Software Productivity Tools
  - or CYBR 190 Data Analytics Mathematical Modeling

- Take all of the following: 3
  - ITEC 220 Electricity/Electronics
  - CYBR 251 Linux Programming Environment
  - CYBR 335 Fundamentals of Networking & Systems
  - CYBR 340 Information Networking Preceptorial
  - CYBR 345 Intricacies of Advanced Networks & Systems
  - CYBR 430 Protecting & Defending Networks & Systems
  - CYBR 435 Thinking like an Adversary: Systems Side Security
  - CYBR 460 Virtualization Essentials

## Information Networking and Telecommunications Management Core Requirements

- CYBR 490 Information Networking Law and Public Policy 3
- CYBR 495 Cyber Systems Capstone 3
- Select 9 hours from the following: 9
- CYBR 490 Information Networking Law and Public Policy
- CYBR 495 Cyber Systems Capstone
- Select 9 hours from the following:
- CYBR 302 Principles of Management Information Systems
- CYBR 381 Systems Analysis and Design I
- CYBR 448 System Administration
- ITEC 308 Industrial Management
- ITEC 408 Leadership in Business and Technology
- or MGT 409 Leadership: Skills, Applications, Research

## Information Networking and Telecommunications Support Track Requirements

- Select one of the following support tracks: 15

- 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

- Take one of the following:
  - ITEC 130 Technology Today
  - or CYBR 182 Software Productivity Tools
  - or CYBR 190 Data Analytics Mathematical Modeling

- Take all of the following:
  - ITEC 220 Electricity/Electronics
  - CYBR 251 Linux Programming Environment
  - CYBR 335 Fundamentals of Networking & Systems
  - CYBR 340 Information Networking Preceptorial
  - CYBR 345 Intricacies of Advanced Networks & Systems
  - CYBR 430 Protecting & Defending Networks & Systems
  - CYBR 435 Thinking like an Adversary: Systems Side Security
  - CYBR 460 Virtualization Essentials

- Select 9 hours from the following:
  - CYBR 490 Information Networking Law and Public Policy
  - CYBR 495 Cyber Systems Capstone
  - Select 9 hours from the following:
    - CYBR 302 Principles of Management Information Systems
    - CYBR 381 Systems Analysis and Design I
    - CYBR 448 System Administration
    - ITEC 308 Industrial Management
    - ITEC 408 Leadership in Business and Technology
    - or MGT 409 Leadership: Skills, Applications, Research

- Select one of the following support tracks: 15
## Cyber Investigations

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<tbody>
<tr>
<td>CJUS 350</td>
<td>Organized Crime</td>
<td>3</td>
</tr>
<tr>
<td>CJUS 353</td>
<td>Crime Prevention and Security</td>
<td>3</td>
</tr>
</tbody>
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Select 9 hours from the following:

- CJUS 230 The Police Service
- CJUS 321 Technology in Criminal Justice
- CJUS 360 Sex Crimes
- CJUS 390 Criminal Investigation
- CJUS 476 Terrorism and Crisis Negotiations
- CJUS 490 Advanced Criminal and Crime Scene Investigations (CSI)

Total Credit Hours 15

## Web and Scripting

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<tr>
<td>JMC 112</td>
<td>Communication Software</td>
<td>3</td>
</tr>
<tr>
<td>JMC 300</td>
<td>Website Design</td>
<td>3</td>
</tr>
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Select 9 hours from the following:

- JMC 304 Interactive Media Design
- JMC 401 Web Site Design II
- JMC 402 CMS - WordPress
- JMC 300- JMC 499 with the permission of instructor
- CYBR 300 – CYBR 499, with permission of instructor

Total Credit Hours 15

## Business and Entrepreneurship

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<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MGT 400</td>
<td>Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>MGT 401</td>
<td>Small Business Management</td>
<td>3</td>
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Select 6 hours from the following:

- ACCT 413 Entrepreneurial Law
- MKT 460 Strategic Product Management
- SPCH 445 Diffusion of Innovations
- CYBR 300 – CYBR 499, with permission of instructor

Total Credit Hours 15

## Tailored Option

Select 15 credit hours of courses approved by the Department Chair following consultation between the student and the academic advisor. Courses are to be selected during the first year of declaring the major.

Total Credit Hours 15

1. Students with sufficient preparation may enter the mathematics program at a higher level, reducing the total credit hours needed.
2. Before registering for the internship, students must have Junior class standing and a 2.5 cumulative GPA in core courses including any emphasis areas required.
3. Except CYBR 388. Take no more than 6 credit hours from CYBR 475, CYBR 494, CYBR 499.