

# INFORMATION TECHNOLOGY, BACHELOR OF SCIENCE

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

Code	Title	Credit Hours
<b>General Studies</b>		
<i>Foundational Requirements (LOPERs 1-4)</i>		12
Including:		
LOPER 4: Mathematics, Statistics and Quantitative Reasoning		
MATH 102	College Algebra <sup>1</sup>	
<i>Broad Knowledge Requirements (LOPERs 5-8)</i>		12
<i>Dispositional Requirements (LOPERs 9-10) <sup>2</sup></i>		6
<i>Wellness (LOPER 11) Optional</i>		0
<b>BS Science-related course requirements</b>		
STAT 241	Elementary Statistics <sup>1</sup>	3
Select one of the following:		3-5
MATH 115	Calculus I with Analytic Geometry <sup>1</sup>	
MATH 123	Applied Calculus I <sup>1</sup>	
<b>Program-Specific Requirements</b>		<b>3-4</b>
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	
<b>Major Option</b>		
Complete all required courses		36
<b>Minor or 2nd Major</b>		
Complete all required courses <sup>3</sup>		24
<b>Unrestricted electives</b>		
Needed to reach 120 credit hour minimum		21-18
Total Credit Hours		120

## Major Option

Code	Title	Credit Hours
<b>Information Technology Core Requirements</b>		
CYBR 150	Computer Science II: Object Oriented Programming	3
CYBR 180	Discrete Structures	3
CYBR 223	Foundations of Information Technology and Systems	3
CYBR 235	Fundamentals of Networking & Systems	3
CYBR 381	Systems Analysis and Design I	3
CYBR 405	Human Computer Interactive Application Development	3
CYBR 425	Applied Database Management Systems	3
CYBR 458	Computer Security	3
CYBR 495	Cyber Systems Capstone	3
<b>Information Technology Electives</b>		
Select 9 credit hours of the following:		9

### System Administration & Networking Options:

CYBR 340	Information Networking Preceptorial
CYBR 345	Intricacies of Advanced Networks & Systems
CYBR 448	System Administration II
CYBR 460	Virtualization Essentials

### Web Development Options:

CYBR 406	Enterprise Application Development
CYBR 418	E-Commerce Information Systems
JMC 300	Website Design
JMC 304	Interactive Media Design

### Data Analytics Options:

CYBR 306	Introduction to Predictive Modeling
CYBR 350	Predictive Modeling II
CYBR 410	Big Data Visualization
CYBR 411	Big Data II

### General IT Options:

CYBR 300-CYBR 499 <sup>4</sup>	
Total Credit Hours	36

1

Students with sufficient preparation may enter the mathematics program at a higher level, reducing the total credit hours needed.

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.