



## Bachelor of Science in Information Technology

### Program Description

The Bachelor of Science in Information Technology program prepares students with the technical skills and knowledge necessary to excel in the rapidly evolving field of technology. This program provides a comprehensive foundation in operating systems, network administration, cloud computing, artificial intelligence (AI), cybersecurity, and data management. Through access to state-of-the-art technology labs and cutting-edge tools, students will have hands-on experience in designing, implementing and troubleshooting information system solutions.

Coursework in this program provides a foundation for select industry certifications. These certifications enhance employment opportunities but are not a state specific requirement.

### Program Outcomes

Upon completion of this program, the student should be able to:

1. Design secure information systems solutions for physical and virtual environments based on business requirements
2. Apply ethical and professional standards in IT practices, ensuring responsible and sustainable use of technology.
3. Plan technology projects, utilizing best practices in project management methodologies.
4. Use information systems for the collection, organization, and delivery of data.
5. Communicate technical information and collaborate with diverse teams to achieve common goals in IT projects.
6. Develop artificial intelligence and machine learning (AI/ML) approaches to create workplace efficiency and accuracy.

### Program Content

A minimum of 120.00 semester credit hours is required for graduation.

### Required Courses

All courses, 67.00 semester credit hours, are required.

Course Number and Name	Prerequisites/Corequisites	Semester Credit Hours
IT 101 MicroComputer Organization	None	3.00
IT 105 Computer Architecture	None	3.00
IT 110 Computer Operating Systems	None	3.00
IT 115 Network Fundamentals	IT 101 MicroComputer Organization	3.00
IT 204 Linux System Administration	None	4.00
IT 210 Enterprise Network Engineering or IT 500 Network Engineering	IT 115 Network Fundamentals or None	3.00
IT 215 Programming in Python	IT 101 MicroComputer Organization	3.00
IT 220 Database Management Systems	IT 101 MicroComputer Organization	3.00
IT 306 Virtualization	IT 115 Network Fundamentals	3.00
IT 310 Foundations of Cybersecurity	None	3.00
IT 316 Human Computer Interaction	None	3.00
IT 320 Fundamentals of Programming	None / IT 316 Human Computer Interaction	3.00

Course Number and Name	Prerequisites/Corequisites	Semester Credit Hours
IT 338 Ethical Hacking	IT 310 Foundations of Cybersecurity	3.00
IT 340 Information Systems Management	None	3.00
IT 346 Information Technology Project Management or IT 520 Project Management for Cybersecurity	None or None	3.00
IT 350 Artificial Intelligence and Machine Learning (AI/ML) or IT 621 Advanced AI and Machine Learning (AI/ML)	None or IT 500 Network Engineering	3.00
IT 368 Cloud Computing	IT 306 Virtualization	3.00
IT 369 Cloud Computing Security	IT 310 Foundations of Cybersecurity	3.00
IT 410 Wireless Security	IT 310 Foundations of Cybersecurity	3.00
IT 411 Data Privacy	IT 310 Foundations of Cybersecurity	3.00
IT 430 Data Analytics or IT 611 Big Data Analytics	None or IT 500 Network Engineering	3.00
IT 450 Artificial Intelligence (AI) Practitioner	None	3.00

### Open Elective Courses

A minimum of 12.00 semester credit hours is required. Eligible students can take approved dual credit graduate level courses to complete a portion of the open electives requirement.

### Dual Credit Courses

Eligible students can replace up to 12.00 semester credit hours of the core program requirements with approved dual credit graduate level coursework. A total of 12.00 graduate semester credit hours can be taken throughout the student's program.

Graduate Program	Applicable Dual Credit Courses
Master of Science in Computer Science	IT 500 Network Engineering IT 611 Big Data Analytics IT 621 Advanced AI and Machine Learning (AI/ML)
Master of Science in Cybersecurity	IT 500 Network Engineering IT 520 Project Management for Cybersecurity

### Required Capstone or Internship

3.00 semester credit hours are required.

Course Name	Prerequisites/Corequisites	Semester Credit Hours
IT 491 Technology Capstone Project	Final semester	3.00
IT 499 Internship in Technology	Final semester	3.00

\* Online students in some states may not be allowed to take this internship due to state restrictions.

### Required Courses in General Education

Students enrolled in this bachelor's degree must complete a minimum of 36.00 semester credit hours in general education distributed among the following disciplines. Refer to the General Education section of the catalog for specific information about courses within each discipline. Courses transferred from other accredited colleges may also be used to meet these requirements.

- EN 104 English Composition I, Semester Credit Hours: 3.00

- EN 111 Information Literacy, Semester Credit Hours: 3.00
- EN 116 Speech, Semester Credit Hours: 3.00
- EN 304 English Composition II, Semester Credit Hours: 3.00
- HU 140 Cultural Diversity, Semester Credit Hours: 3.00
- HU 240 Introduction to Humanities, Semester Credit Hours: 3.00
- HU 340 Humanities and Contemporary Popular Culture, Semester Credit Hours: 3.00
- MA 109 College Algebra, Semester Credit Hours: 3.00
- MA 320 Statistics, Semester Credit Hours: 3.00
- SC 270 Environmental Literacy, Semester Credit Hours: 3.00
- PS 101 Psychology, Semester Credit Hours: 3.00
- SS 350 Social Issues and Technology, Semester Credit Hours: 3.00

**Personal and Professional Development Courses**

All courses, 2.00 semester credit hours, are required.

<b>Course Number and Name</b>	<b>Prerequisites/Corequisites</b>	<b>Semester Credit Hours</b>
PD 121 Professional Development I	None	1.00
PD 202 Professional Development II	None	1.00

Distribution of Contact Hours by Course				
Course	Lecture Hours	Internship Hours	Total Contact Hours	Credits
IT 101	45.00	0.00	45.00	3.00
IT 105	45.00	0.00	45.00	3.00
IT 110	45.00	0.00	45.00	3.00
IT 115	45.00	0.00	45.00	3.00
IT 204	60.00	0.00	60.00	4.00
IT 210	45.00	0.00	45.00	3.00
IT 215	45.00	0.00	45.00	3.00
IT 220	45.00	0.00	45.00	3.00
IT 306	45.00	0.00	45.00	3.00
IT 310	45.00	0.00	45.00	3.00
IT 316	45.00	0.00	45.00	3.00
IT 320	45.00	0.00	45.00	3.00
IT 338	45.00	0.00	45.00	3.00
IT 340	45.00	0.00	45.00	3.00
IT 346	45.00	0.00	45.00	3.00
IT 350	45.00	0.00	45.00	3.00
IT 368	45.00	0.00	45.00	3.00
IT 369	45.00	0.00	45.00	3.00
IT 410	45.00	0.00	45.00	3.00
IT 411	45.00	0.00	45.00	3.00
IT 430	45.00	0.00	45.00	3.00
IT 450	45.00	0.00	45.00	3.00
IT 491 or IT 499	45.00 or 0.00	0.00 or 135.00	45.00 or 135.00	3.00
PD 121	15.00	0.00	15.00	1.00
PD 202	15.00	0.00	15.00	1.00
Electives	180.00	0.00	180.00	12.00
Gen Ed - Communications	180.00	0.00	180.00	12.00
Gen Ed – Humanities	135.00	0.00	135.00	9.00
Gen Ed – Mathematics	90.00	0.00	90.00	6.00
Gen Ed - Science	45.00	0.00	45.00	3.00
Gen Ed – Social and Behavioral Sciences	90.00	0.00	90.00	6.00
<b>Totals with IT 491 Capstone</b>	<b>1800.00</b>	<b>0.00</b>	<b>1800.00</b>	<b>120.00</b>
<b>Totals with IT 499 Internship</b>	<b>1755.00</b>	<b>135.00</b>	<b>1890.00</b>	<b>120.00</b>

### New Course Descriptions

Course	Course Description
IT 316 Human Computer Interaction	This course covers a range of topics, including the design and evaluation of user interfaces, user experience, and usability. The course heavily focuses on the user perspective and the human-centered design process, which includes collecting, analyzing, and formalizing user needs.
IT 320 Fundamentals of Programming	This course introduces the fundamental concepts of programming in C++. Students will learn how to write efficient and scalable programs, manage system resources, and implement object-oriented solutions.

IT 430 Data Analytics	This course equips students with essential skills to analyze and interpret data across various industries. It covers statistical analysis, programming and database management, along with principles of data visualization and storytelling. Students will develop both technical proficiency and critical thinking skills to make ethical, data-driven decisions.
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