COMPUTER INFORMATION TECHNOLOGY MAJOR (A.B.S.)

Description

The **Applied Bachelor of Science (A.B.S.) in Computer Information Technology** is a comprehensive 90-credit, three-year program focused on building industry-relevant knowledge and skills in programming, data analytics, virtualization and cloud computing, database management, systems analysis, digital forensics, and professional codes of ethics. Hands-on learning environments and problem-solving engagement prepares learners for professional certification and candidacy as an IT generalist, ensuring qualification for a broad range of technology roles.

Requirements

Degree Requirements

Minimum Credit Requirement: 90 credits

Minimum Residency Requirement: 30 credits must be taken at UNH

Minimum Cumulative GPA: 2.0 is required for conferral*

Core Curriculum Required: General Education Program

General Education Program Requirements

A minimum grade of D- is required in all General Education coursework. All General Education requirements must be taken prior to the capstone.

Code	Title	Credits
ENG 420	The Writing Process	4
COM 460	Interpersonal Communication and Group Dynamics	4
COM 480	Visual Communication	4
CRIT 501	Introduction to Critical Inquiry	4
MTH 402	Math for Our World	4
or MTH 504	Statistics	
or MTH 510	Pre-Calculus	
Knowledge of Human Behavior & Social Systems		4
Knowledge of the Physical & Natural World		4
Knowledge of Human Thought & Expression		4
CRIT 602	Advanced Critical Analysis and Strategic Thinking	4
IDIS 601A	Interdisciplinary Seminar: Being Happy	4
or IDIS 601B	Interdisciplinary Seminar: Business of Beer	
or IDIS 601C	Interdisciplinary Seminar: Paranormal Activities	
Total Credits		**40**

Writing Program Requirements

All bachelor's degree candidates are required to complete four writing intensive courses as part of the University Writing Program Requirements as follows:

Code	Title	Credits
ENG 420	The Writing Process	
One Writing Intensive course in the Major		
One Writing Intensive course at the 600-level or above		
One Additional Writing Intensive Course		

Writing Intensive courses are identified with the label "Writing Intensive Course" in the "Attributes" section of the course description and/or a W following the course number.

Major Requirements

Prior to capstone enrollment, students are expected to complete all General Education program requirements. Students should consult with their advisor regarding specific major courses that may be completed with their capstone. Refer to the Degree Plan for a sample course sequence. Academic Advisor approval is required for registration to be processed.

A minimum grade of C- is required in all Major coursework.

Code	Title	Credits
Foundation Courses		
CMPL 402	Excel	2
CMPL 415	Programming Fundamentals	4
CMPL 525	Foundations of Cybersecurity	4
Intermediate Courses		
APST 605A	Practicum Business & Technology	4
CMPL 610	Artificial Intelligence for Information Technology Professionals	4
or CMPL 620	Virtualization and Cloud Computing	
Advanced Courses		
CMPL 614	Computer and Network Systems	4
CMPL 641	Database Management Systems	4
Core Courses		
DAT 510	Introduction to Data Analytics	4
CMPL 530	Python Programming I	4
CMPL 637	Python Programming II	4
CMPL 640	Digital Forensics	4
CMPL 645	Ethical Hacking	4
Capstone		
APST 695A	Integrative Capstone	4
Total Credits		**50**

Degree Plan

Sample Degree Plan

This sample degree plan serves as a general guide; students collaborate with their academic advisor to develop a personalized degree plan to meet their academic goals and program requirements.

First Year		
Fall		**Credits**
CMPL 402	Excel	2
CMPL 415	Programming Fundamentals	4
CMPL 525	Foundations of Cybersecurity	4
ENG 420	The Writing Process	4
	Credits	**14**
Spring		
DAT 510	Introduction to Data Analytics	4
CMPL 530	Python Programming I	4
CMPL 637	Python Programming II	4
COM 460	Interpersonal Communication and Group Dynamics	4
	Credits	**16**

Second Year		
Fall		
COM 480	Visual Communication	4
CRIT 501	Introduction to Critical Inquiry	4
CMPL 641	Database Management Systems	4
MTH 402 or MTH 504 or MTH 510	Math for Our World or Statistics or Pre-Calculus	4
	Credits	**16**
Spring		
CMPL 614	Computer and Network Systems	4
Knowledge of Human Behavior & Social Systems		4
CMPL 610 or CMPL 620	Artificial Intelligence for Information Technology Professionals or Virtualization and Cloud Computing	4
Knowledge of the Physical & Natural World		4
	Credits	**16**
Third Year		
Fall		
APST 605A	Practicum Business & Technology	4
CMPL 645	Ethical Hacking	4
CMPL 640	Digital Forensics	4
Knowledge of Human Thought & Expression		4
	Credits	**16**
Spring		
CRIT 602	Advanced Critical Analysis and Strategic Thinking	4
IDIS 601A or IDIS 601B or IDIS 601C	Interdisciplinary Seminar: Being Happy or Interdisciplinary Seminar: Business of Beer or Interdisciplinary Seminar: Paranormal Activities	4
APST 695A	Integrative Capstone	4
	Credits	**12**
	Total Credits	**90**

Student Learning Outcomes

Program Learning Outcomes

- Apply computing principles, programming methodologies, data analysis, and security assessments to design, develop, and optimize secure, effective solutions across diverse computing environments.
- Apply ethical, legal, and professional standards in the development, security, and management of technology solutions, ensuring compliance with industry best practices.
- Adapt professional communication to convey complex technical concepts to various stakeholder audiences.
- Employ industry-standard teamwork and coordination strategies to collaborate constructively within multidisciplinary teams to develop and deploy computing solutions that address business needs.