# COMPUTER INFORMATION TECHNOLOGY MAJOR: DATA ANALYTICS OPTION (B.S.)

https://cps.unh.edu/online/program/bs/computer-information-technology-data-analytics-option

#### Description

The major in Computer Information Technology focuses on information, its management and processing within an organization, and the application of technology to create, exchange, store, and use information in that context. The focus is on the business use of information and the application of computing technology. Graduates will typically follow career paths as applications development programmers, planners and designers of information systems, and information systems managers within organizations. The degree provides versatility through a best practices approach to the core areas of Information Technology.

#### Requirements

#### **Degree Requirements**

Minimum Credit Requirement: 120 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

Major, Option and Elective Requirements as indicated.

\*GPA: Major and any state certification GPA requirements may be higher and are indicated in program details.

A minimum grade of C- is required in all Major coursework. Students are allowed a maximum of two course overlaps. Overlaps can be used between Major, Minor, and General Education requirements with only one overlap being utilized between the Major and Minor. Please note that Option requirements are considered part of the Major. Students must complete 16 upper-level credits in majors within the College of Professional Studies, Online.

#### **General Education Program Requirements**

A minimum grade of D- is required in all General Education coursework. Students are allowed a maximum of two course overlaps. Overlaps can be used between Major, Minor and General Education requirements with only one overlap being utilized between the Major and Minor.

All General Education requirements, including CRIT 602 Advanced Critical Analysis and Strategic Thinking and IDIS 601 Interdisciplinary Seminar, 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
Select one of the following:		

<b>Total Credits</b>		40
IDIS 601	Interdisciplinary Seminar	4
CRIT 602	Advanced Critical Analysis and Strategic Thinking	4
Knowledge of Human Thought & Expression		4
Knowledge of the Physical & Natural World		4
Knowledge of Human Behavior & Social Systems		4
MTH 510	Pre-Calculus	
MTH 504	Statistics	
MTH 402	Math for Our World	

### **Major Requirements**

Prior to capstone enrollment, students are expected to complete the majority of their required major courses along with CRIT 602 Advanced Critical Analysis and Strategic Thinking and IDIS 601 Interdisciplinary Seminar. Students should consult with their advisor regarding specific major courses that may be completed with their capstone. Academic Advisor approval is required for registration to be processed.

Code	TITLE	Credits
Major in Computer Inform	nation Technology	
Foundation Courses		
CMPL 415	Programming Fundamentals	4
CMPL 512	Advanced Software Tools	4
CMPL 525	Foundations of Cybersecurity	4
Intermediate Courses		
CMPL 614	Computer and Network Systems	4
CMPL 622	Human Computer Interaction	4
MTH 504	Statistics	4
Advanced Courses		
CMPL 620	Virtualization and Cloud Computing	4
CMPL 641	Database Management Systems	4
CMPL 642	Systems Analysis and Design	4
Option in Data Analytics		
DAT 510	Introduction to Data Analytics	4
DAT 535	Data Mining, Cleaning, and Visualization	4
DAT 610	Data Analytics and Technologies	4
DAT 620	Data Analytics in Business Intelligence	4
DAT 670	Advanced Data Analytics	4
Integrative Capstone:		
CMPL 795	Integrative Capstone: Internship in Computer Information Tech and Tech Management	4
or CMPL 797	Integrative Capstone: Best Practices in Information Technology	
Total Credits		60

#### **Electives**

Open electives are courses students will need to take in addition to their general education and major requirements in order to satisfy the remaining credit totals for their programs. Open electives are defined as any credit course offered by the College not already included in the student's general education, major, option or minor. Students will need 120 credits total to graduate with a bachelor's degree from the Online Division of the College of Professional Studies.

#### Degree Plan

This degree plan is a sample and does not reflect the impact of transfer credit or current course offerings. UNH CPS Online undergraduate students should develop individual academic plans with their academic advisor during their first year at UNH.

### **Sample Course Sequence**

Second Year           Fall           CMPL 614         Computer and Network Systems         4           COM 480         Visual Communication         4           General Education Course         4           Elective         4           Credits         16           Spring           CMPL 622         Human Computer Interaction         4           MTH 504         Statistics         4           General Education Course         4           Elective         4           Credits         16           Third Year           Fall           Credits         16           Spring           Credits         16           Spring           Credits         16           Spring           CMPL 641         Database Management Systems         4           Credits         16           Spring           CMPL 641         Database Management Systems         4           Credits         4 <td cols<="" th=""><th>First Vision</th><th></th><th></th></td>	<th>First Vision</th> <th></th> <th></th>	First Vision		
CMPL 415         Programming Fundamentals         4           CMPL 525         Foundations of Cybersecurity         4           ENG 420         The Writing Process         4           General Education Course         4           Credits         16           Spring           CMPL 512         Advanced Software Tools         4           COM 460         Interpersonal Communication and Group Dynamics         4           CRIT 501         Introduction to Critical Inquiry         4           MTH 402         Math for Our World or Statistics         4           or MTH 510         or Statistics         16           Second Year           Fall           CMPL 614         Computer and Network Systems         4           COM 480         Visual Communication         4           General Education Course         4           Elective         4           Credits         16           Spring         4           CMPL 622         Human Computer Interaction         4           MTH 504         Statistics         4           General Education Course         4           Elective         4           Cr			Cradita	
CMPL 525         Foundations of Cybersecurity         4           ENG 420         The Writing Process         4           General Education Course         4           Credits         16           Spring         16           CMPL 512         Advanced Software Tools         4           COM 460         Interpersonal Communication and Group Dynamics         4           CRIT 501         Introduction to Critical Inquiry         4           MTH 402         Math for Our World         4           or MTH 510         or Statistics         6           or MTH 510         or Statistics         16           Second Year         Fall         16           CMPL 614         Computer and Network Systems         4           COM 480         Visual Communication         4           General Education Course         4           Elective         4           Credits         16           Spring         4           CMPL 622         Human Computer Interaction         4           MTH 504         Statistics         4           General Education Course         4           Elective         4           Credits         16		Programming Fundamentals		
ENG 420         The Writing Process         4           General Education Course         4           Credits         16           Spring         16           COM 460         Interpersonal Communication and Group Dynamics         4           CRIT 501         Introduction to Critical Inquiry         4           MTH 402 or MTH 504 or Statistics or Pre-Calculus         4           Credits         16           Second Year           Fall           CMPL 614         Computer and Network Systems         4           COM 480         Visual Communication         4           General Education Course         4           Elective         4           Credits         16           Spring         4           CMPL 622         Human Computer Interaction         4           MTH 504         Statistics         4           General Education Course         4           Elective         4           Credits         16           Third Year         4           Fall         Credits         16           CMPL 620         Virtualization and Cloud Computing         4           DAT 535         D			·	
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	IDIS 601	Interdisciplinary Seminar	4	
Credits 16	Elective		4	
		Credits	16	

#### **Spring**

	Total Credits	120
	Credits	8
Elective		4
	Management	
	Computer Information Tech and Tech	
	or Integrative Capstone: Internship in	
or CMPL 795	Information Technology	
CMPL 797	Integrative Capstone: Best Practices in	4

## Student Learning Outcomes

- Possess proficiency in information technology, including programming fundamentals, software, network systems, and databases, as well as their relevant web interfaces and applications.
- Demonstrate both practical skills and theoretical knowledge of information technology, enabling graduates to make a professional contribution to organizations across sectors.
- Engage in effective critical thinking and problem-solving in the field of information technology.
- Assess the needs of technology users and articulate appropriate strategies for meeting those needs through hardware and software.