COMPUTER INFORMATION TECHNOLOGY MAJOR: SOFTWARE DEVELOPMENT OPTION (B.S.)

https://cps.unh.edu/online/program/bs/computer-information-technology-software-development-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. Some programs may have higher grade requirements for Major coursework as noted in the Major requirements section below. 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.

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.

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**

**First Year**

**Fall**
- 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 MTH 504 Statistics
  - or MTH 510 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**
- CMPL 622 Human Computer Interaction 4
- MTH 504 Statistics 4
- General Education Course 4
- Elective 4

**Credits** 16

**Third Year**

**Fall**
- CMPL 530 Python Programming I 4
- CMPL 620 Virtualization and Cloud Computing 4
- CMPL 637 Python Programming II 4
- Elective 4

**Credits** 16

**Spring**
- CMPL 641 Database Management Systems 4
- CMPL 648 Programming with JavaScript 4
- CMPL 665 Web Application Development 4
- CRIT 602 Advanced Critical Analysis and Strategic Thinking 4

**Credits** 16

**Fourth Year**

**Fall**
- CMPL 642 Systems Analysis and Design 4
- IDIS 601 Interdisciplinary Seminar 4
- CMPL 760 Mobile Application Development 4

**Elective**

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**Spring**

| CMPL 797 or CMPL 795 Integrative Capstone: Best Practices in Information Technology or Integrative Capstone: Internship in Computer Information Tech and Tech Management | 4 |
| Elective |

**Credits** 8

**Total Credits** 120

**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.