

# COMPUTER STUDIES (COMPST)

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## **COMPST 701 Computing Fundamentals for IT Professionals**

3 cr. Graduate.

A survey of computer science fundamentals. Topics include data storage and manipulation, operating systems and networks, algorithms and data structures, programming languages, artificial intelligence, parallel computing, and computability.

**Prerequisites:** graduate standing.

**Last Taught:** Fall 2023, Fall 2022, Fall 2021, Fall 2020.

**Current Offerings:** <https://catalog.uwm.edu/course-search/>

## **COMPST 702 Introductory Programming Using Python**

3 cr. Graduate.

Programming in Python. Basic control structures including recursion. Basic and library data types. Problem solving with objects. Writing classes. Basic software development skills.

**Prerequisites:** graduate standing.

**Last Taught:** Fall 2023, Spring 2023, Fall 2022, Spring 2022.

**Current Offerings:** <https://catalog.uwm.edu/course-search/>

## **COMPST 703 Software Development Life Cycle**

3 cr. Graduate.

Introduction to core topics of the software development life cycle including requirements analysis, object-oriented design, testing, maintenance and project management. Overview of ethical and social issues in computing.

**Prerequisites:** COMPSCI 701(P) or equivalent.

**Last Taught:** Fall 2023, Fall 2022, Fall 2021, Summer 2021.

**Current Offerings:** <https://catalog.uwm.edu/course-search/>

## **COMPST 750 Problem Solving with Object-Oriented Programming**

3 cr. Graduate.

Problem solving with object-oriented programming language. Topics include arrays, strings, classes, standard data structures, graphical user interfaces, exceptions, files, debugging, and configuration management.

**Prerequisites:** Previous programming experience such as COMPSCI 702(P), COMPSCI 240(P), or COMPSCI 250(P).

**Last Taught:** Spring 2024, Fall 2023, Spring 2023, Fall 2022.

**Current Offerings:** <https://catalog.uwm.edu/course-search/>

## **COMPST 751 Data Structures and Algorithms**

3 cr. Graduate.

Programming in a structured, high-level, object-oriented language. Implementation of data structures and algorithms and their application.

**Prerequisites:** COMPST 750(P); COMPSCI 251(R).

**Last Taught:** Spring 2024, Fall 2023, Spring 2023, Fall 2022.

**Current Offerings:** <https://catalog.uwm.edu/course-search/>

## **COMPST 790 Advanced Topics in Computer Studies:**

3-9 cr. Graduate.

Discussion of special advanced topics in the study of computing. Retakable with change in topic to 9 cr max.

**Prerequisites:** grad st; add'l prereqs depending on topic.

**Current Offerings:** <https://catalog.uwm.edu/course-search/>