# COMPUTER STUDIES (COMPST)

# **Computer Studies Courses**

# **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 2024, Fall 2023, Fall 2022, Fall 2021.

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 2024, Fall 2023, Spring 2023, Fall 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 2024, Fall 2023, Fall 2022, Fall 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

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702(P), COMPSCI 240(P), or COMPSCI 250(P).

**Last Taught:** Fall 2024, Spring 2024, Fall 2023, Spring 2023. **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:** Fall 2024, Spring 2024, Fall 2023, Spring 2023. **Current Offerings:** https://catalog.uwm.edu/course-search/

### **COMPST 789 Software Internship**

1 cr. Graduate.

Supervised work experience in software with a minimum of 150 hours. **Prerequisites:** graduate standing and written consent of instructor. **Course Rules:** Repeatable to 3 cr max. Satisfactory/Unsatisfactory only.

Prior consent of graduate program director required.

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/