CSIS 3700 - Data Structures and Objects

Fall 2026 Syllabus, Section A01, CRN 43218,

Credit hours: 3

Instructor

Robert Kramer

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Public Instructor Information

Instructor Title: Associate Professor
Instructor Professional Qualifications: PhD, Computer Science, University of Pittsburgh, 1998
MS, Computer Science, University of Pittsburgh, 1991
BS, Mathematics / Computer Science,
Youngstown State University, 1987
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Course Description

3700. Data Structures and Objects. Program design, style and expression, testing and debugging for larger programs. Introductory concepts of object-oriented programming, including classes, methods, encapsulation, and abstract data types. Theory and application of data structures, including linked structures, priority queues, trees, networks, and graphs. Prereq.: "C" or better in either CSIS 2605 or CSIS 2610. Coreq.: CSIS 3700L. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Data Structures and Other Objects Using C++, 4th edition	Main and Savitch	978-0132129480

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Tentative Course Schedule

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
10/19	Chapter 1 Chapter 2 Chapter 3	Introduction Programming in the Large Asymptotic Analysis	Quiz 1 Quiz 2
10/26	Chapter 12	Searching Dictionaries	Quiz 3 Programming Project 1
11/2	Chapter 7 Chapter 9 Chapter 8	Stacks Recursion Queues	Programming Project 2
11/9	Chapter 5	Linear Lists Linked Lists	Quiz 4 Programming Project 3
11/16	Chapter 10	Trees	Programming Project 4
11/23	Chapter 13 Chapter 11	Sorting Heaps	Quiz 5
11/30	Chapter 15	Graphs	

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.