

Course Name: Data Structures

Course Number: CS 261 (Online)

Credits: 4

Instructor Info: Randy Scovil / <a href="mailto:randy.scovil@oregonstate.edu">randy.scovil@oregonstate.edu</a>

## **Course Schedule - Fall 2023:**

Week	Course Activities
0/1	<ul> <li>Module 1 – Introduction to Data Structures</li> <li>Syllabus Quiz (Due: 10/9)</li> <li>Assignment 0: Introduction and Environment Setup (Due: 10/9)</li> </ul>
2	<ul> <li>Module 2 – Big O Notation, Binary Search</li> <li>Assignment 1: Python Programming Practice (Due: 10/23)</li> </ul>
3	<ul> <li>Module 3 – ADTs, Python's List, Iterators</li> <li>Assignment 2: Implementation of Dynamic Array and ADTs (Due: 10/30)</li> </ul>
4	<ul> <li>Module 4 – Linked Lists, Stacks, Queues</li> <li>Assignment 3: Implementation of Linked Lists and ADTs (Due: 11/6)</li> </ul>
5	Module 5 – Binary Trees
6	<ul> <li>Module 6 – AVL Trees</li> <li>Midterm (Available from 11/8-12 and covers material from Week 1-5)</li> <li>Assignment 4: BST/AVL Tree Implementation (Due: 11/20)</li> </ul>
7	<ul> <li>Module 7 – Priority Queues and Heaps</li> <li>Assignment 5: Heap Implementation (Due: 11/29)</li> </ul>
8	<ul> <li>Module 8 – Maps and Hash Tables</li> <li>Assignment 6: Hash Map Implementation (Portfolio Assignment) (Due: 12/7)</li> </ul>
9	Module 9 - Graphs
10	Module 10 – Advanced Sorting
Final Week	<ul> <li>Final Exam (Available from 12/10-14 and covers material from entire course)</li> </ul>