

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 2021:**

Week	Course Activities
1	<ul> <li>Module 1 – Introduction to Data Structures, Big O Notation</li> <li>Syllabus Quiz (Due: 10/4)</li> <li>Assignment 0: Introduction and Environment Setup (Due: 10/4)</li> </ul>
2	<ul> <li>Module 2 – ADTs, Python's List</li> <li>Assignment 1: Python Programming Practice (Due: 10/11)</li> </ul>
3	<ul> <li>Module 3 – Linked Lists, Stacks, Queues, and Deques</li> <li>Assignment 2: Implementation of Dynamic Array and ADTs (Due: 10/18)</li> </ul>
4	<ul> <li>Module 4 – Encapsulation and Iterators, Binary Search</li> <li>Assignment 3: Implementation of Linked Lists and ADTs (Due: 10/25)</li> </ul>
5	<ul> <li>Module 5 – Binary Trees</li> <li>Midterm (Available from 10/27-31 and covers material from Week 1-4)</li> </ul>
6	<ul> <li>Module 6 – AVL Trees</li> <li>Assignment 4: Binary Search Tree Traversals (Due: 11/8)</li> </ul>
7	<ul> <li>Module 7 – Priority Queues and Heaps</li> <li>Assignment 5: AVL Tree Implementation (Due: 11/16)</li> </ul>
8	<ul> <li>Module 8 – Maps and Hash Tables</li> <li>Assignment 6: Heap Implementation (Due: 11/23)</li> </ul>
9	<ul> <li>Module 9 - Graphs</li> <li>Assignment 7: Hashmap Implementation (Portfolio Assignment)</li> <li>(Due: 12/3)</li> </ul>
10	Module 10 – Graphs Continued
Final Week	Final Exam (Available from 12/5-9 and covers material from entire course)