Welcome to UD
Course Structure
Data Structure & Algorithms CSP 350
Fall 2018

Scheduling: MWF: 1:25 pm - 2:15 pm   **Venue**: MH 201
Assistant Professor: **Dr. Saeedeh Shekarpour**   **E-mail:** sshekarpour1@udayton.edu   **Phone:** (937)229 3925   **Office Hours:** M: 3:30-4:30   Office: Room #101B, and # 101C, Music and Theater Building
Teacher Assistant: **Sunday Ngwobia**   **E-mail:** ngwobias1@udayton.edu   **Office Hours:** MW: 2:30 pm-3:30 pm   Office: Room #101B, and #101C, Music and Theater Building

Text Book Resources

➔ In the following, I provide the references to the three popular books but feel free to explore other online resources.
- ✓ [1] Introduction to Algorithms, 3rd Edition by Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein. Download Link
- ✓ [2] Data Structures and Algorithms in Java, 2nd Edition by Robert Lafore. Downloadlink
- ✓ [3] Algorithms, 4th Edition by Robert Sedgewick and Kevin Wayne Download Link Slides of the book are available here

Grading Schema

Quiz 1 + Quiz 2 + Quiz 3 + Final Exam ………………..	80%	
Class Activities + HomeWorks ……………..………	20% >>	
Total …………………………….……….……………	100% >>	
Grades will range from A through F. The following is the breakdown for grading:		

94 - 100 = A   90 – 93 = A-   87 – 89 = B+   84 – 86 = B   83 – 83 = B-
77 – 79 =C+   74 - 76 = C   70 - 73 = C-   67 - 69 = D+   64 - 66 = D   60 - 63 = D-   Below 60 is an F

Important Statements:

➔ **Academic Honesty:** You are allowed to collaborate and discuss with other students or search online, but you are not allowed to copy under any circumstances, any case of plagiarism will cause F for all the involving students.

➔ Your class activity and presence is a **must**, the more activity the more credit.

➔ Each homework should be ready for the next session. I randomly select a student to solve the homework.

➔ Please bring your notebook to Lab sessions.

Course Requirements:

➔ Prior and fresh knowledge in programming especially in Java.

➔ Please install a Java Editor e.g., Eclipse on your laptop

Course Syllabus

Month	Week	Day	Topic	Reading
August 2018	Week 1	WF	W: Intro F: Arrays & Strings	F: [2] ch-2
	Week 2	MWF	M: Bubble Sort W: Complexity Analysis F: Selection & Insertion Sort	M: [2] ch-3 W: [3] ch-1.4, [1] ch-2,3 F: [2] ch-3, [3] 2.1
September 2018	Week 3	WF	W: Stacks F: Queues	W&F: [2] ch-4 , [3] ch-1.3 [1] ch-10.1
	Week 4	MWF	M: Linked List W: Recursion 1 F: Recursion 2	M: [1] ch-10.2, [2] ch-5 W&F: [1] ch-4, [2] ch-6
	Week 5	MWF	M: Merge Sort W: Divide-and-Conquer Algorithm F: Advanced Topics: (String Matching, String Sorting)	M: [3] ch-2, [2] ch-6 W: [1] ch-4 F: [1] ch-32, [3] ch-5
	Week 6	MWF	M: Lab 1 W: Quiz 1 F: Trees 1 (basic concepts)	F: [2] ch-8 [1] ch-12 [3] ch-3
October 2018	Week 7	M	M: Trees 2 (Binary Search Tree)	Trees: [2] ch-8, [1] ch-12, [3] ch-3
	Week 8	MWF	M: Trees (BST), Min-Heap, Max Heap W: Red-Black Trees F: Lab 2	W: [2] ch-10, [1] ch-13
	Week 9	MWF	M: Hash Tables 1 W: Hash Tables 2 F: Hash Tables 3	[1] 11 [2] 11 [3] 3.4
	Week 10	MWF	M: Lab 3 W: Quiz 2 F: QuickSort	F: [1] ch-7
	Week 11	MWF	M: Priority Queues W: Heapsort F: B-Trees	M: [2] ch-15 W: [1] ch-6, [2] ch-12 F: [1] ch-5, [2] ch-10
November 2018	Week 12	MWF	M: Lab 3 W: Undirected Graphs F: Directed Graphs	[3] ch-4 [2] ch-13 [2] ch-14
	Week 13	MWF	M: Minimum Spanning Trees W: Shortest Path F: Lab 4	[2] ch-13 [2] ch-4
	Week 14	MW	M: Quiz 3	W: [1] ch-15
	Week 15	MWF	M: Dynamic Programming 1 W: Greedy Algorithms 1 F: Greedy Algorithms 2	M: [1] ch-15 W: [1] ch-16 F: [1] ch-16

| December 2018 | Week 16 | MW | M: NP-Completeness
W: Q & A | M: [1] ch-34 |