University of Oklahoma
School of Computer Science
CS 2413 – Data Structures
Spring 2019
Syllabus

Instructor: Dr. Sridhar Radhakrishnan, sridhar@ou.edu

Phone: (405) 325-4042

Office Location: DEH 244

Office Hours: 9:00 A.M to 10:30 A.M (Monday and Wednesday)

Class Time: 1:30 PM to 2:45 PM (MW)

Class Location: 103 Dale Hall

Teaching Assistants:
Narasimhan, Aditya -- adinaras@ou.edu -- 4:00 PM – 5:30 PM TR -- DEH 115
Mudduluru, Sanjana -- sanjana@ou.edu -- 9 AM – 10:30 AM Fri -- DEH 115

Course Pre/co-requisite: CS 2334 and (CS 2813 or MATH 2513 as a corequisite)

Textbook:
Radhakrishnan, S., Wise L., and Sekharan, N. 2013. *Data Structures Featuring C++: A Programmer's Perspective (Links to an external site.)*

Course Requirements: Students are required to take two exams, three quizzes, and a final. There will be no makeup exams except in cases of emergencies. Failure to take the final exam will result in an automatic F as the overall course grade. There will be set of programming projects that each student should individually complete and all programming projects must be written in C++. The course letter grade will be assigned based on the overall percentage: >= 90 (A), >=80 and < 90 (B), >=70 and < 80 (C), >=60 and < 70 (D), and <60 (F). The allocation of percentages is given below:

	Percentages
Exam 1	15%
Exam 2	15%
Final	20%
Quiz 1	5%
Quiz 2	5%
Quiz 3	5%
Programming Projects	35%

ABET Outcomes of Instruction in CS 2413:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

2. Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

Programming Projects:

Projects have to be coded in C++. We will use ANSI C++ and hence if your program compiles on any g++ compiler then you are set to go.

1. You will also use the digital drop box facility to submit the source program.
2. For every 24 hours late, you will be deducted 10% of the grade of the programming project. Any project that is more than 5 days late will not be evaluated.
3. A programming project that does not meet the specifications will receive an automatic deduction of 50% of the grade.
4. You are better off submitting a working project on the fifth day rather than the one that does not work on the day it is due.
5. Programs have to be documented clearly. Programs that lack or are weak in documentation will receive a deduction of up to 30% of the grade. Follow the documentation methods that were used in programs presented in your data structures book.
6. You will demo your project to the grader during the grader assigned special office hours **if the grader so wishes**. Graders are not responsible for debugging your programs.
7. The specification for the projects presented by the instructor may not contain all the details of implementation. It is your responsibility to understand the specifications thoroughly.
8. **Copying programs or consulting others for coding is strictly prohibited and will be treated as plagiarism. Additionally, copying programs from the Internet is also strictly prohibited.**
9. Apart from the above general policies for evaluating, each programming project will also have a set of specifications that should be met.

University Policies

Academic Integrity

Cheating is strictly prohibited at the University of Oklahoma, because it devalues the degree you are working hard to get. As a member of the OU community it is your responsibility to protect your educational investment by knowing and following the rules. For specific definitions on what constitutes cheating, review the Student's Guide to Academic Integrity at http://integrity.ou.edu/students_guide.html.

To be successful in this class, all work on exams and quizzes must be yours and yours alone. You may not receive outside help. On examinations and quizzes you will never be permitted to use your notes, textbooks, calculators, or any other study aids. Should you see someone else engaging in this behavior, I encourage you to report it to myself or directly to the Office of Academic Integrity Programs. That student is devaluing not only their degree, but yours, too. Be aware that it is my professional obligation to report academic misconduct, which I will not hesitate to do. Sanctions for academic misconduct can include expulsion from the University and an F in this course, so don't cheat. It's simply not worth it.

Religious Observance

It is the policy of the University to excuse the absences of students that result from religious observances and to reschedule examinations and additional required classwork that may fall on religious holidays, without penalty.

Reasonable Accommodation Policy

Students requiring academic accommodation should contact the Disability Resource Center for assistance at (405) 325-3852 or TDD: (405) 325-4173. For more information please see the Disability Resource Center website http://www.ou.edu/drc/home.html Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

Title IX Resources and Reporting Requirement

For any concerns regarding gender-based discrimination, sexual harassment, sexual assault, dating/domestic violence, or stalking, the University offers a variety of resources. To learn more or to report an incident, please contact the Sexual Misconduct Office at 405/325-2215 (8 to 5, M-F) or smo@ou.edu. Incidents can also be reported confidentially to OU Advocates at 405/615-0013 (phones are answered 24 hours a day, 7 days a week). Also, please be advised that a professor/GA/TA is required to report instances of sexual harassment, sexual assault, or discrimination to the Sexual Misconduct Office. Inquiries regarding non-discrimination policies may be directed to: Bobby J. Mason, University Equal Opportunity Officer and Title IX Coordinator at 405/325-3546 or bjm@ou.edu. For more information, visit http://www.ou.edu/eoo.html.

Adjustments for Pregnancy/Childbirth Related Issues

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact your professor or the Disability Resource Center at 405/325-3852 as soon as possible. Also, see http://www.ou.edu/eoo/faqs/pregnancy-faqs.html for answers to commonly asked questions.

Final Exam Preparation Period

Pre-finals week will be defined as the seven calendar days before the first day of finals. Faculty may cover new course material throughout this week. For specific provisions of the policy please refer to OU's Final Exam Preparation Period policy (https://apps.hr.ou.edu/FacultyHandbook#4.10).

Emergency Protocol

During an emergency, there are official university procedures that will maximize your safety.
Severe Weather: If you receive an OU Alert to seek refuge or hear a tornado siren that signals severe weather *1. LOOK* for severe weather refuge location maps located inside most OU buildings near the entrances *2. SEEK* refuge inside a building. Do not leave one building to seek shelter in another building that you deem safer. If outside, get into the nearest building. *3. GO* to the building's severe weather refuge location. If you do not know where that is, go to the lowest level possible and seek refuge in an innermost room. Avoid outside doors and windows. *4.* GET IN, GET DOWN, COVER UP. 5. *WAIT* for official notice to resume normal activities.
Link to Severe Weather Refuge Areas , Severe Weather Preparedness - Video

Armed Subject/Campus Intruder: If you receive an OU Alert to shelter-in-place due to an active shooter or armed intruder situation or you hear what you perceive to be gunshots:
1. GET OUT: If you believe you can get out of the area WITHOUT encountering the armed individual, move quickly towards the nearest building exit, move away from the building, and call 911. *2. HIDE OUT*: If you cannot flee, move to an area that can be locked or barricaded, turn off lights, silence devices, spread out, and formulate a plan of attack if the shooter enters the room. *3. TAKE OUT*: As a last resort fight to defend yourself.
For more information, visit http://www.ou.edu/emergencypreparedness.html
Shots Fired on Campus Procedure - Video

Fire Alarm/General Emergency: If you receive an OU Alert that there is danger inside or near the building, or the fire alarm inside the building activates: *1. LEAVE* the building. Do not use the elevators. *2. KNOW* at least two building exits *3. ASSIST* those that may need help *4. PROCEED* to the emergency assembly area *5 ONCE safely outside, NOTIFY first responders of anyone that may still be inside building due to mobility issues. 6. .WAIT* for official notice before attempting to re-enter the building.
OU Fire Safety on Campus

Tentative Course Schedule

Date	Topics	Tests	Projects
January 14, 2019	C++ Programming		
January 16, 2019	C++Programming		
January 21, 2019	**Martin Luther King Holiday**		
January 22, 2019	Chapter 1 Introduction (Object-Oriented Programming)		Project 1 Assigned
January 28, 2019	Chapter 1 Introduction (Object-Oriented Programming)		
January 30, 2019	Chapter 2 Algorithms and Recursion		
February 4, 2019	Chapter 2 Algorithms and Recursion		
February 6, 2019	Chapter 3 Arrays, Strings, and Vectors		Project 1 Due; Project 2 Assigned
February 11, 2019	Chapter 3 Arrays, Strings, and Vectors		
February 13, 2019	Chapter 3 Arrays, Strings, and Vectors		
February 19, 2019	Chapter 4 Linked Lists		
February 20, 2019	Chapter 4 Linked Lists	**Quiz-1**	
February 25, 2019	Chapter 5 Stacks and Queues		Project 2 Due; Project 3 Assigned
February 27, 2019	Chapter 5 Stacks and Queues		
March 4, 2019	**Exam – 1**	**Exam 1**	
March 6, 2019	Chapter 6 Single Dimensional Binary Trees		
March 11, 2019	Chapter 6 Single Dimensional Binary Trees		
March 13, 2019	Chapter 6 Single Dimensional Binary Trees		Project 3 Due; Project 4 Assigned
March 18, 2019	**Spring Break**		
March 20, 2019	**Spring Break**		
March 25, 2019	Chapter 7 Self-Modifying Search Trees		
March 27, 2019	Chapter 7 Self-Modifying Search Trees		
April 1, 2019	Chapter 7 Self-Modifying Search Trees Chapter 8 Priority Search Trees		
April 3, 2019	Chapter 8 Priority Search Trees	**Quiz-2**	
April 8, 2019	Chapter 8 Priority Search Trees Chapter 9 Sorting		Project 4 Due; Project 5 Assigned
April 10, 2019	**Exam – 2**	**Exam 2**	
April 15, 2019	Chapter 9 Sorting		
April 17, 2019	Chapter 9 Sorting Chapter 10 Hashing		
April 22, 2019	Chapter 10 Hashing; Ethics		
April 24, 2019	Ethics; Chapter 11 Graphs	**Quiz-3**	Project 5 Due
April 29, 2019	Chapter 11 Graphs		
May 1, 2019	Review for the Final Examination		
May 7, 2019	**Final Examination; 8:00 AM – 10:00 AM (Monday)**	**Final**	