CS 241– Data Structures– Spring 2013

Course Information

Professor:	Dr. Necaise	**Email:**	rdnecaise@wm.edu
Office:	McGl 135	**Web Page:**	`www.cs.wm.edu/~necaise/cs241`
Phone:	221-3454		

Office Hours: MWF: 10:00 – 11:00, MW: 2:00 – 3:00, or by appointment.

This course is a continuation of CS 141: Computation Problem Solving. The major topics of the course include data abstraction, data structures, and algorithms. Common data structures and algorithms, including arrays, lists, maps, stacks, queues, hash tables, trees, heaps, searching, sorting, and recursion, will be covered. The implementation of abstract data structures using classes gives this course a significant programming component.

TextBook. The textbook for this course is *Data Structures and Algorithms Using Python*, by R. Necaise, 2010, John Wiley & Sons Publishers.

Attendance. You are advised to attend all class meetings. The lectures typically supplement the material found in the textbook or online resources. You are responsible for all material related to any class meeting from which you were absent.

Programming Environment. We will be using the Python programming language. You are free to use any operating system and IDE or text editor for the development of your programs. However, all submitted work must use Python version 3.2.x and run from the command line of the CS department Linux systems.

Assignments. There will be 10 – 12 written and programming assignments. All assigned work is due by the date/time specified. Any assignment turned in after the due date/time but on the same day will be penalized 10%. Any assignment turned in after the day on which it is due, will be penalized 50% of the total value for that assignment. No assignment will be accepted that is more than **three** days late. If you turn an assignment in late, **you must indicate this on the top of the paper**. All assignments are to be done on an individual basis.

Exams. There will be three one-hour exams during the term and a final exam that will be comprehensive. There will be no make up exams unless you have a written excuse from the Health Center or permission is requested from Student Affairs.

Grade Distribution. Your final grade will be computed according to the following approximate distributions:

- 45% for programming and written assignments
- 30% for the three one-hour exams
- 25% for the final exam

and the letter grade assigned as follows: A: ≥ 94, A-: $[90 \ldots 93]$, B+: $[87 \ldots 89]$, B: $[83 \ldots 86]$, B-: $[80 \ldots 82]$, C+: $[77 \ldots 79]$, C: $[73 \ldots 76]$, C-: $[70 \ldots 72]$, D+: $[67 \ldots 69]$, D: $[63 \ldots 66]$, D-: $[60 \ldots 62]$, and F: < 60.

Honor Code. All assignments must be done individually. You may discuss programming assignments informally with other students. However, sharing a solution in the form of experimental results or the design or implementation of a program, or parts of a program, is an honor violation. If you have any uncertainty about what this means, consult with me before you collaborate.

Use of Laptops. The use of laptops and mobile computing devices are permitted during class so long as they are being for the course such as for taking notes, finding information related to the course, etc. Laptops are not to be used during class for reading email, social networking, completing assignments for other courses, etc. If the use of laptops becomes distracting for myself or other students in the course, **I reserve the right to prohibit their use during class.**

Common Courtesy. Please be courteous to everyone in the classroom. Do not leave the room during class unless you absolutely must as this is distracting to others. If you are late to class, please be as quiet as possible when entering the room and find a seat close to the door so as to not disrupt the class. Do not use a mobile phone during class and make sure the phone is turned off or the ringer is muted before entering the classroom. Finally, my office door is open most of the time. **If it is closed, however, this is an indication that I can not be disturbed at the moment.** So, please try again later. You are always welcome to contact me by email.