

# Computer Engineering 12

## Abstract Data Types and Data Structures

Spring 2008

Mondays, Wednesdays, and Fridays

10:30 am – 11:35 am and 1:00 pm – 2:05 pm

### Instructor

Instructor: Darren Atkinson  
Office: Bannan Engineering, Room 245  
Office hours: MW 2:15 pm – 3:15 pm and F 9:15 am – 10:15 am  
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### Teaching Assistants

Teaching assistant: Sree Gudreddi and Maria Pantoja  
Lab hours: T 2:30 pm – 5:00 pm, W 2:15 pm – 5:00 pm, and R 2:30 pm – 5:00 pm  
E-mails: [sreegudreddi@yahoo.com](mailto:sreegudreddi@yahoo.com) and [mpantoja@scu.edu](mailto:mpantoja@scu.edu)

### Textbooks

Required: Gilberg and Forouzan, *Data Structures – A Pseudocode Approach with C*, Brooks/Cole.  
Recommended: Kernighan and Ritchie, *The C Programming Language*, 2nd edition, Prentice Hall.

### Grading

Lab attendance: 5% (each and every week)  
Programming projects: 15% (4/11, 4/25, 5/9, 5/23, and 6/6)  
Midterm exams: 40% (4/18 and 5/16)  
Final exam: 40% (6/11)

### Overview

Abstract data types: sets, lists (including stacks and queues), priority queues, and maps (dictionaries)  
Data structures: arrays, hash tables, linked lists, trees (including search trees), heaps, and graphs  
Algorithms: searching and sorting (selection-based, insertion-based, and exchange-based)

### Policies

Students are bound by the Santa Clara University Academic Integrity Policy and School of Engineering Honor Code. Collaboration on project assignments and reuse of assignments from previous classes are not allowed and are an explicit violation of these policies. Finally, you are free to attend either class period for lectures, but you must take the exams in the class period for which you are registered. There will be no exceptions to this policy.