CSCE 2050 Computer Science III

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Office hours: 11:00-12:00, MW

Course Description

This course provides elementary data structures, practice in software design, implementation and testing with emphasis on creating and modifying larger programs.

Course Outcomes

- Gain further experience with object-oriented design and abstract data types.
- Gain experience with non-trivial software design and implementation through a multiple-module programming project.
- Demonstrate a proficiency in a second programming language.
- Develop applications using basic data structures including linked lists, stacks, queues, and trees.
- Complete simple time analysis of algorithms, such as basic sorting and searching algorithms.

Textbook

- Deitel, H. M. and P. J. Deitel, "*C++ How to Program,*" Prentice Hall. (7th edition)
- Frank M. Carrano, "*Data Abstraction & Problem Solving with C++,*" Addison-Wesley Computing. ISBN: 0-321-43332-7.

Coursework

- **Exams**
  - Exam 1 (total of 15 points)
  - Exam 2 (total of 15 points)
  - Exam 3 (total of 20 points)
- **Programming Assignments**
  - Project (total of 15 points)
  - Individual programming assignments (total of 35 points)

Policies and Grading Scale

- Late Homework **Late submissions are NOT accepted**. Extension can only be granted for extreme situations acknowledged **PRIOR TO** the deadlines. *The penalty for any late submission is 20%.*
- Attendance If a student misses classes, it is that student's responsibility to obtain notes and other materials.
- Any disagreement on the grades shall be discussed with the instructor within **5** calendar days from the date the papers/homework are returned to the students.
- Programming Grading Criteria
  Functionality
  - Program compiles and meets all project requirements
  - Program executes correctly with all possible testing cases

  Program Test and Scripting
  - Test cases should representatively demonstrate the functionalities of the program and match those to the project requirements.
  - Comprehensive test data suite included with program outputs; otherwise partial credits can be awarded.

  Program Design
  - Modularity (including proper use of parameters, use of local variables, etc.)

- Correct and appropriate use of programming structures (loops, conditionals, classes, and the like)
- Efficiency of algorithm
- Proper I/O (prompts and/or echoes input, clear and properly formatted output messages, etc.)

Program Layout (Visual Appeal)

- Proper naming conventions (using symbolic constants, appropriate names for variables, methods, and so forth)
- Proper commenting
- Consistent conventions (indenting, braces, headers, and so on)

Academic Dishonesty

All students are expected to do their own work. Discussions of concepts are encouraged, but all assignments should be done individually. If sources other than the course textbook and presentations are used for reference—including the Internet, other books, and other people—they should be clearly cited in the submitted work. Violating these policies will result in a zero for the assignment and possibly failing the course. The UNT Center for Students Rights and Responsibilities has more information about university policies for academic dishonesty.

American with Disabilities Act

The Department of Computer Science and Engineering cooperates with the Office of Disability Accommodation to make reasonable accommodations for qualified students (cf. Americans with Disabilities Act and Section 504, Rehabilitation Act) with disabilities. If you have not registered with ODA, we encourage you to do so. If you have a disability for which you require accommodation please discuss your needs with me and submit your written Accommodation Request on or before the fourth class day.

Caveat

I reserve the right to modify the course contents, change the method of assigning grades, including changing the number of assignments or exams, etc. outlined in this syllabus, subject to extenuating circumstance.

SETE

The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.