

COMPUTING FOUNDATIONS II

CSCE 2110.021 – SUMMER 2015 8W1 SESSION

Instructor:	Dr. Mark A. Thompson
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Class Location/Time:	NTDP D212, MoWe 1:00 PM – 2:50 PM
Recitation:	<i>Section 201:</i> NTDP D202, Fr 12:30 – 1:20 PM <i>Section 202:</i> NTDP D202, Fr 1:30 – 2:20 PM
Office Hours:	MoWe 9:30 – 10:30 AM MoWe 3:00 – 4:00 PM <i>or by appointment</i> <i>Every attempt will be made to answer e-mails within 24 hours. Please include “CSCE 2110.021” in the subject of e-mail communication.</i>
Online Textbook:	<i>Foundations of Computer Science</i> , by Alfred Aho and Jeffrey Ullman, URL: http://infolab.stanford.edu/~ullman/focs.html
Prerequisites:	CSCE 2100
Blackboard	This course will use Blackboard, a Web-based course management system, to distribute course materials, communicate and collaborate online, post grades and submit assignments. You are responsible for checking the Blackboard course site regularly for class work and announcements.

COURSE DESCRIPTION

Continuation of Computing Foundations I. Further introduces students to both data structures and formalisms used in computer science, such as asymptotic behavior of algorithms. Learn about data structures and formalisms used to both describe and evaluate those data structures simultaneously. By the end of the two-semester sequence, of which this course is the second part, each student will have a solid foundation in conceptual and formal models, efficiency, and levels of abstraction as used in the field of computer science.

COURSE OUTCOMES

Course outcomes are measurable achievements to be accomplished by the completion of a course. These outcomes are evaluated as part of our ABET accreditation process. By the completion of this course, students will demonstrate:

1. Use of graph data structures in design of software.
2. Use of relational data structures in design of software.
3. Use of set structures in design of software.
4. Use of C++ classes to implement graphs, sets, and relational data structures.
5. Use of regular expressions to describe patterns.
6. The ability to describe assertions in propositional logic form.

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ADA STATEMENT

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information, see the Office of Disability Accommodation website at <http://disability.unt.edu>. You may also contact them by phone at (940) 565-4323.

ATTENDANCE POLICY

Class attendance is regarded as an obligation as well as a privilege. All students are therefore expected to attend each class meeting. *A student who misses class is still responsible to find out what was discussed and to learn the material that was covered and obtain the homework that was assigned on the missed day.* The instructor is not responsible for re-teaching material missed by a student who did not attend class. Therefore, each student is accountable for and will be evaluated on *all* material covered in this course, regardless of attendance.

Excessive unexcused absences may result in your class grade being lowered and can even lead to being dropped from the course. If you miss class for what you believe to be a valid reason, you must submit a written excuse within two days of your return. Excused absences typically consist of, but are not limited to: (1) illness with a physician's note; (2) university sanctioned event; and (3) documented family emergency, such as a death in your immediate family. The instructor will have the final say as to whether or not an absence is excused.

If you anticipate being absent from a class, please notify your instructor in advance to see if there is any course material or other important information you might need prior to your absence. A student who is tardy for a class meeting should resolve the matter with the instructor at the end of the class period during which the tardiness occurred. Otherwise, the instructor may treat the tardiness as an absence. Students with more than two (2) unexcused absences may be dropped from the course or have their grade lowered by one letter grade at the discretion of the instructor. Therefore, I expect your participation and attendance in this class to receive high priority.

ACCEPTABLE STUDENT BEHAVIOR

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at <http://deanofstudents.unt.edu>.

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GRADING POLICY

Your course grade will be a weighted average according to the following:

Attendance/Participation	5.0%
Homework	20.0%
Programming Assignments	30.0%
Midterm Exam	20.0%
<u>Final Exam</u>	<u>25.0%</u>
Total	100.0%

Your letter grade for the semester will be determined as follows:

A = 90 – 100 B = 80 – 89 C = 70 – 79 D = 60 – 69 F = 0 – 59

Grades will be posted on Blackboard throughout the semester to provide an ongoing assessment of student progress, though final assessment will be measured using the weighted average above.

POLICIES

- Most assignments are due at 11:59 PM on the specified due date. When class time is used as a lab session, however, assignments may be due at the end of the class period.
- All assignments should be submitted to Blackboard unless otherwise stated by the instructor.
- Late assignments submitted within 24 hours of the deadline will incur a 50% reduction penalty. Assignments submitted more than 24 hours late will not be accepted and receive a grade of 0. All assignments must be completed and submitted according to their specific directives.
- A make-up exam will be given at the discretion of the instructor when a student misses an exam with an excused absence. Unexcused absences on the date of an exam may result in a grade of 0 for the missed exam, so every effort should be made to attend class on the day of the scheduled exam.

ACADEMIC DISHONESTY

Students caught cheating or plagiarizing will receive a “0” for that particular assignment or exam. Additionally, the incident may be reported to the Dean of Students, who may impose further penalty. According to the UNT catalog, the term “cheating” includes, but is not limited to: (a) use of any unauthorized assistance in taking quizzes, tests, or examinations; (b) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (c) the acquisition, without permission, of tests of other academic material belonging to a faculty or staff member of the university; (d) dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor(s); or (e) any other act designed to give a student an unfair advantage. The term “plagiarism” includes, but is not limited to: (a) the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgement; and (b) the knowing or negligent unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

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Individual assignments in this course must be the sole work of the individual student. You should not work with other students on shared program solutions or use program solutions found on the Internet. Specifically, you should never copy someone else's solution or code, and never let a classmate examine your code. If you are having trouble with an assignment, please consult with your instructor, TAs, or peer mentors.

A sophisticated program will be used to compare your work to the work of all other students (including students in past classes, if appropriate). If it is determined that you have cheated, the first instance of cheating in the class may result in a grade of 0 on the assignment or exam in question and referral to the department chairperson and dean of engineering. The second instance of cheating in the class will result in a grade of F in the class, and a dismissal hearing may be initiated by the dean of engineering.

In case the above description, and in-class discussion of my views on appropriate and inappropriate collaboration does not answer all of your questions, please meet with me and look at the university Student Rights and Responsibilities web page.

TENTATIVE CLASS SCHEDULE (*subject to change*):

Week	Date	<u>Monday</u>	<u>Wednesday</u>
1	5/18 — 5/22	Introduction	Review of C++
2	5/25 — 5/29	<i>Memorial Day</i>	Sets/Power Sets/Implementations
3	6/1 — 6/5	Functions/Orders	Equivalent Relations/Infinite Sets/Russell's Paradox
4	6/8 — 6/12	Relational Data Model/Algebraic Properties of Relations	Midterm
5	6/15 — 6/19	Graphs/Minimal Spanning Tree/Shortest Path Algorithm	Patterns/Automata
6	6/22 — 6/26	Nondeterminism to Determinism/Regular Expressions	Grammars/Parse Trees/Recursive Descent Parsing
7	6/29 — 7/3	Propositional Logic/Truth Tables	Karnaugh Maps
8	7/6 — 7/10	Review	Final Exam

IMPORTANT DATES

May 18	First Class Day
May 18	Last day for change of schedule other than a drop. (Last day to add a class.)
May 25	Memorial Day (no classes; University closed)
Jun 9	Last day to drop a course with a grade of W for courses a student is not passing.
Jun 18	Last day to drop a course with a grade of WF.
Jul 4	Independence Day (Saturday)
Jul 9	Last Class Day