

# CSCE 1030 Computer Science I

Instructor: David Keathly Semester: Spring 2013

Office: NTDP F201J

3:20 pm

12:20 pm

Office Hours: MTTh 9:30 – 11:00 am

II)

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Times: Section 001 MW 2:00 –

Section 002 TTh 11:00 –

Place: NTDP B185 (Sections I and

## Course Catalog Description

CSCE 1030 is the introductory course for the computer science, computer engineering and information technology degrees offered by the Department of Computer Science and Engineering. As such it introduces students to the broad discipline of computing while placing emphasis on developing students' programming skills. In addition to two 75-minute "lecture" classes per week, each student will participate in a three-hour laboratory session each week.

## 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.

1. Describe how a computer's CPU, Main Memory, Secondary Storage and I/O work together to execute a computer program.
2. Make use of a computer system's hardware, editor(s), Linux operating system, system software and network to build computer software and submit that software for grading.
3. Describe algorithms to perform "simple" tasks such as numeric computation, searching and sorting, choosing among several options, string manipulation, and use of pseudo-random numbers in simulation of such tasks as rolling dice.
4. Write readable, efficient, and correct C programs that include programming structures such as assignment statements, selection statements, loops, arrays, pointers, both standard library and user-defined functions, and multiple header (.h) and code (.c) files.
5. Use a symbolic debugger to find and fix runtime and logical errors in C software.
6. Describe a software process model that can be used to develop significant applications composed of hundreds of C functions.
7. Perform the steps necessary to edit, compile, link and execute C software.

## Textbook:

Computer Science CS1 - Retzlaff & Sweany - Kendall Hunt Publishers

Optional: Kelly and Pohl, A BOOK ON C (4<sup>th</sup> edition) Addison Wesley, ISBN 0-201-18399-4

### **Prerequisites**

Completion of or concurrent enrollment in MATH 1650

### **Course Requirements:**

Attendance: Optional, although student is responsible for all materials covered in lecture and class discussion

Exams: Two

Assignments: There will be some larger programming assignments, quizzes, exams and laboratory exercises to complete

### **For More information**

Faculty Webpage: [www.cse.unt.edu/~dkeathly](http://www.cse.unt.edu/~dkeathly)

Class Web Page: <http://moodle.cse.unt.edu>

### **Course Calendar** (subject to change)

| <b>Week</b> | <b>Topics</b>   | <b>Readings, Materials and Assignments</b> |
|-------------|---|--|
| Week 1      | Class Overview<br>Programming Overview                  | see lecture notes on class web page        |
| Week 2      | Data types, variables, assignments and<br>I/O<br>Quiz 1 | see lecture notes on class web page        |
| Week 3      | Conditionals<br>Lab 1, Quiz 2                           | see lecture notes on class web page        |
| Week 4      | Operators<br>Lab 2, Quiz 3                              | see lecture notes on class web page        |
| Week 5      | Loops<br>Lab 3, Quiz 4                                  | see lecture notes on class web page        |
| Week 6      | Strings<br>Lab 4, Quiz 5                                | see lecture notes on class web page        |
| Week 7      | Functions<br>Lab 5, Quiz 6                              | see lecture notes on class web page        |
| Week 8      | Midterm Exam  | see lecture notes on class web page        |

|         |   |                                     |
|---------|---|-------------------------------------|
|         | Lab 6, Quiz 7   |                                     |
| Week 9  | Arrays<br>Lab 7, Quiz 8                                     | see lecture notes on class web page |
| Week 10 | Pointers<br>Lab 8, Quiz 9                                   | see lecture notes on class web page |
| Week 11 | Standard Libraries<br>Lab 9, Quiz 10                        | see lecture notes on class web page |
| Week 12 | Tips/Tricks<br>Large Program Development<br>Lab 10, Quiz 11 | see lecture notes on class web page |
| Week 13 | Algorithms<br>Lab 11, Quiz 12                               | see lecture notes on class web page |
| Week 14 | Random Numbers<br>Lab 12, Quiz 13                           | see lecture notes on class web page |
| Week 15 | Final Exam Prep   |                                     |
| Week 16 | Final Exam Week   |                                     |

### **Grading Policy**

**The various components of your grade are weighted as follows:**

|                                      |     |
|--------------------------------------|-----|
| Lab Programs (12 drop 1)             | 30% |
| Quizzes (13 drop 1)                  | 10% |
| Larger Programming Assignments (5-6) | 40% |
| Exams (2)                            | 20% |

### **Course Policies:**

- On programs and labs, do your own work. Do NOT work with other students on shared program solutions. Do NOT get help with algorithms or coding from anyone other than your instructor or the lab TAs. Do NOT use even partial program solutions from the internet. Failure to adhere to these strict standards will be cause for disciplinary action that could be as severe as expulsion from the university.
- It IS permissible to obtain help from whoever you wish to fix syntax errors. And we will be discussing in class the different types of errors that occur in programs so there will be ample opportunity for you to learn the difference between syntax and other errors. But remember, for anything but syntax errors, getting programming assistance from any source other than your instructor or the Class TAs will be considered cheating and dealt with harshly.

- And, of course, you need to do your own work on quizzes and exams as well. Here there should be no ambiguity at all.
- 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 look at the university Student Rights and Responsibilities web page.
- There will be no make-up exams, quizzes, or programs given in this class. However, for documented *excused absences\** or *emergencies\** on a day of an exam or a lab the exam and/or lab grades will be replaced by an average of the other exams or lab scores. There is one exception to this rule. Under NO circumstances will more than one exam or two days worth of lab scores be replaced by an average of the other scores. For a second missed exam or third missed lab, even if all are excused, students will receive a 0 for any work that day.
- You are responsible for the information covered in class, whether you attend class or not. Individualized lectures will not be given. Please check with other class members for any notes that might have been missed during an absence. Except for the start of the term, attendance will not be taken in lecture. However, your attendance is strongly recommended to improve your opportunity to meet course objectives.
- Students should expect an "in-lab" program each week in lab. The program will be submitted before that lab session is complete.
- Weekly quizzes will be completed online via the class webpage.
- All non-lab programs are due at 11:59pm on the due date. Late non-lab programs will be graded, with a 20% reduction in value every day they are late (this includes non-class days and weekends). All programs will be submitted through the class website.
- The instructor and TAs require a current copy of the program when a student is asking a question about a program. There will be no reverse delegation of work and the instructor reserves the right to curve any and all grades.
- All pertinent information about the class (assignments, exam reviews, sample code, written topic discussions, and day-to-day event schedule) are available via the class webpage. If there is ever a question as to when something is due, or an additional copy of a course document is needed, ALWAYS check the class webpage. If you feel there is incorrect or there is missing information on the class website, email the instructor about the problem immediately. Electronic mail (email) will be a major means of communication with the instructor outside of actual classroom discussions.
- Please keep this information sheet handy during the semester and always periodically check the class homepage for any course information, including scheduling of programming assignments, exams, and exam reviews.

\* Excused Absences: Students are expected to schedule routine appointments and activities so as not

to conflict with attending class. However, some absences cannot be prevented. In the event of a medical emergency or family death, students must request an excused absence as quickly as feasible following the emergency. Use common sense. Students must provide documentation that verifies an emergency arose.

\* Emergencies: By definition, emergencies cannot be planned for. Your instructor attempts to make accommodations in these instances that allow for making up missed work and completion of the course in a timely manner. Among these emergencies are:

- A death in your immediate family.
- An accident or illness requiring immediate medical treatment and where a doctor has indicated attending class is impossible or inadvisable.
- Employees who are on call 24/7 fall in this category but must document that they were called during a scheduled class.

### **Student Evaluation of Teaching Effectiveness (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

### **ADA:**

UNT complies with all federal and state laws and regulations regarding discrimination including the Americans with Disability Act of 1990 (ADA). If you have a disability and need a reasonable accommodation for equal access to education or services please contact the Office of Disability Accommodation.