CSCI 1411: Fundamentals of Computing Fall 2015 - Section 003 Department of Computer Science and Engineering College of Engineering and Applied Sciences University of Colorado Denver Course Syllabus

Instructor:Anh Nguyen M.ScTerm: Fall 2015Office:Lawrence St Center, LW-822Class Meeting Days: ThursdaysE-Mail:anh.t4.nguyen@ucdenver.eduClass Meeting Hours: 12:30[pm] – 1:45[pm]Office Day:Mondays – WednesdaysClass Location: Lawrence St Center: LW-840Office Hours:9:00[am] – 10:00[am]

Personal Website: http://cse.ucdenver.edu/~anhnguyen/Fundamental_Computing_Lab.html

COURSE OVERVIEW:

- I. Welcome to the Fundamentals of Computing Lab. This lab is designed to be taken along side with CSCI-1410: Fundamentals of Computing. It will provide you with hands on experience in programming the concepts that you are learning in the lecture component of the course.
- II. University Course Catalog Description: This laboratory is taken with CSCI-1410 and will provide students with additional help with problem solving and computer exercises to compliment the course material covered in CSCI-1410.
- III. **Course Overview:** This is a first course in a series of three that will teach a student how to program using the C++ programming language in a Unix environment.
- IV. **Course Goals and Learning Objectives:** It is the goal of this course that at the completion of the semester you will have gained the following knowledge:
 - Skills in problem solving
 - Skills in computer programming using C++
 - Skills using an operating system such as Linux/Unix
 - Skills using a shell (terminal) that interacts with a kernel
 - Skills using basic editors and standard C++ compilers

The learning objectives of this course are:

- Learning the basics of computing including hardware, software, and operating systems
- Understanding how computers are used to solve problems
- Learning the basics of programming using the C++ programming language, including programming style and documentation

- Learning to design, code, and test programs in C++ using the Linux/Unix based GCC compiler
- V. **Course Prerequisites:** It is expected that at the beginning of this course that you have the following knowledge:
 - Basic mathematics, including algebra and trigonometry
 - How to use a computer and associated peripherals such as printers and other I/O devices
 - How to use software programs such as word processors and text editors
- VI. Course Co-Requisite: CSCI-1410

Note: Each student must sign the Prerequisites Agreement form (which I will pass out during the first week of class) to receive any credit for any assignment or exam. If this form is not signed by the first week, then the student will be administratively dropped from the course.

- VII. **ABET Assessment Criteria:** This course meets ABET Assessment Criteria (B): An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
- VIII. Course Credits: This course has one (1) credit associated with it.
- IX. Required Texts and Materials: This course requires the following textbook: Title: Starting out with C++: From Control Structures Through Objects, 8th Edition Author: Tony Gaddis Publisher: Pearson Education, Limited, 2014 ISBN-10: 0-13-379633-7 ISBN-13: 978-0-13-379633-9
- X. Course Schedule: The following is the tentative schedule for this course and it is subject to change. That being said, I will do my best to keep on track. If there are any changes to this

schedule, they will be reflected on this course's Canvas page.

| Assigned Date | Due Date | Lab Number | Corresponding Chapter Number |
|---------------|----------|------------------|-------------------------------------|
| 8/20 | NA | Lab Introduction | NA |
| 8/27 | 9/03 | Lab-1 | Chapter 1 |
| 9/03 | 9/10 | Lab-2 | Chapter 2 |
| 9/10 | 9/17 | Lab-3 | Chapter 3 |
| 9/17 | 9/24 | Lab-4 | Chapter 4 |
| 9/24 | 10/01 | Lab-5 | Chapter 5 |
| 10/01 | 10/08 | Lab-6.1 | Chapter 6 |
| 10/08 | 10/15 | Lab-6.2 | Chapter 6 |
| 10/15 | 10/22 | Lab-7 | Chapter 7 |
| 10/22 | 10/29 | Lab-8 | Chapter 8 |

| Assigned Date | Due Date | Lab Number | Corresponding Chapter Number |
|---------------|----------|------------|-------------------------------------|
| 10/29 | 11/05 | Lab-9 | Chapter 9 |
| 11/05 | 11/12 | Lab-10 | Chapter 10 |
| 11/12 | 11/19 | Lab-11 | Chapter 11 |
| 11/19 | 12/03 | Lab-12 | Chapter 12 |
| 12/03 | 12/10 | Lab-13 | Chapter 13 |

Note: The last lab is due on 12/10/2015.

EVALUATION:

- I. Course Grade: Course grades are an average of the fourteen individual lab assignment grades.
 Letter grades are as follows:
 - 94% 100% → A
 - 90% 93.9% → A-
 - $87\% 89.9\% \rightarrow B+$
 - 84% 86.9% → B
 - 80% 83.9% → B-
 - 77% 79.9% → C+
 - 74% 76.9% → C
 - $70\% 73.9\% \rightarrow C-$
 - $67\% 69.9\% \rightarrow D+$
 - $64\% 66.9\% \to D$
 - 60% 63.9% → D-
 - $0\% 59.9\% \rightarrow F$
- II. Lab Assignments: The lab assignments will be in the C++ programming language. The grading of the lab assignments is a combination of completeness (all specifications are covered all parts and exercises are complete), correctness of results, and style. The pre-lab worksheet for the lab assignment is due at the start of the class in which you will be working on that particular lab (ex. If you will be working on Lab-4, bring the Lab-4 pre-lab to class that day). All pre-labs must be turned in at the beginning of class as a hard copy for credit; pre-labs can only be e-mailed with prior approval in special circumstances. All lab assignments (source code solutions and additional documents) are due at the beginning of class on the due date (which is typically one week after it is assigned). All submissions will be made via the Canvas course website. I do not allow any late work to be submitted unless there is prior approval by me based on special circumstances.

III. **Grade Dissemination:** I will be utilizing the Canvas system to record your grades. You can check on Canvas for all of your current grades for all labs.

COURSE PROCEDURES:

- I. Attendance: Attendance is not required for this course, but is highly recommended. As with all science courses, you will have an easier time learning the material if you attend the lectures and participate in class. Simple errors in C++ syntax and style can be quickly addressed in class.
- II. Late Work Policy: All lab assignments are due at the beginning of class on the due date. Submissions will be made via Canvas. I do not allow late work to be submitted unless there is prior approval by me based on special circumstances. Pre-labs will only be collected within the first 15[min] of class; after this point they will no longer be accepted.
- III. Grades of "Incomplete": The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. I am the final authority on whether or not you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will be automatically recorded as an "F" on your transcript.
- IV. E-mail Policy: I will be using both the University e-mail system and the Canvas e-mail system. I will respond to your e-mail to the address it was sent from and from the system it was sent from (if you e-mail me from within Canvas, I will respond to Canvas, if you e-mail me from a traditional e-mail, I will respond with a traditional e-mail). For class announcements I will send a Canvas group e-mail. I will be checking my email frequently and you can expect a response within 48 hours (holidays excluded).
- V. Canvas: I will be utilizing Canvas in this course to assign all of the course work and for you to submit your solutions (C++ source code files and other design documents). I will also be utilizing it to communicate with you and provide you with your current grade. It is recommended that you check it frequently.

Student Expectations:

- I. **Civility:** My commitment is to create a climate for learning characterized by respect for each other and the contributions each person makes to class. I ask that you make a similar commitment.
- II. **Professionalism:** Since mobile devices can be distracting during class, I ask that all devices be put into "silent" mode and not utilized during class; this includes checking Facebook, sending a

Tweet, or checking e-mail. If I feel that your mobile device is becoming a distraction for either other students, you, or myself I will ask you to leave the classroom. Additionally, playing videos or other music without the use of headphones is prohibited. Headphones can only be used during open lab (not during announcements and lecture).

III. Religious Observations: I understand that an individual's religion plays a large part in their lives and I do not want this course to interfere with that aspect of their lives. If you find that your religions holiday(s) falls on a class day and you cannot attend due to this, please notify me prior to that class date by e-mail (or Canvas mail) and we can work together to find an acceptable solution.

COLLABORATION AND CHEATING:

I encourage you to review material and discuss ideas together for the assignments, and to work on problems you encounter. It is a characteristic of computation that discussions often help to clarify problems and resolve difficulties – feel free to take advantage of this to improve your understanding of the material, and to complete labs, but **make sure you then create your own work**. It's important that you go through the program design, coding, and debugging process yourself, or you will not be developing your own programming skills and understand. "Working together" does not mean that one student does the majority of the work and other students put their name on it! If you have questions about what this means, please see me. **Every student must create their own work on their own! (this is easy to check for, so do your own work).**

Any instances of checking will result in either a zero for the lab, a grade of zero in the course, or sanctions determined by the university (including suspension and expulsion).

UNIVERSITY POLICIES:

I. Access: The University of Colorado Denver is committed to providing reasonable accommodation and access to programs and services to persons with disabilities. Students with disabilities who want academic accommodations must register with Disability Resources and Services (DRS) in North Classroom 2514, Phone: 303-556-3450, TTY: 303-556- 4766, Fax: 303-556-4771. I will be happy to provide approved accommodations, once you provide me with a copy of DRS's letter. [DRS requires students to provide current and adequate documentation of their disabilities. Once a student has registered with DRS, DRS will review the documentation and assess the student's request for academic accommodations in light of the documentation.

DRS will then provide the student with a letter indicating which academic accommodations have been approved.]

II. Academic Honesty and Student Code of Conduct: Students are expected to know, understand, and comply with the ethical standards of the university, including rules against plagiarism, cheating, fabrication and falsification, multiple submissions, misuse of academic materials, and complicity in academic dishonesty. For more information on Academic Honesty and the Student Code of Conduct provided by this university please see the following web-page: http://www.ucdenver.edu/life/services/standards/students/pages/default.aspx

III. Other University Polices:

• Academic Freedom:

http://www.ucdenver.edu/policy/pages/academic-Freedom.aspx

Family Educational Rights and Privacy Act (FERPA):

http://www.ucdenver.edu/student-services/resources/registrar/students/policies/Pages/StudentPrivacy.aspx

- Attendance: http://www.ucdenver.edu/faculty_staff/employees/policies/Policies%20Library/OAA/ StudentAttendance.pdf
- Discrimination and Harassment Policy and Procedures:

http://www.ucdenver.edu/about/WhoWeAre/Chancellor/ViceChancellors/Provost/StudentAffairs/UniversityLife/s exualmisconduct/DenverPolices/Pages/DenverWelcome.aspx

Grade Appeal Policy:

http://www.ucdenver.edu/policy/Documents/Process-for-Grade-Issues.pdf



Student Honor Code

The Honor Code outlined below is the College of Engineering and Applied Science statement on academic integrity. The Code articulates the College's expectations of its students and faculty in establishing and maintaining the highest standards in academic work.

Honor Code Text

The Honor Code of the College of Engineering and Applied Science is a statement of its students, individually and collectively:

- Students will not give or receive aid during examinations.
- Students will not use any prohibited electronic devices during examinations.
- Students will not give or receive unpermitted aid in class work, in the preparation of reports, or in any other work that is to be used by the instructor as the basis of grading.
- Students will uphold the spirit and letter of the Honor Code and they will take an active role to ensure that others uphold the Honor Code and if they observe violations of the Honor Code they must report violations to their Department Chair.
- The Faculty of the College will do its part to ensure its confidence in the honor of its students. Faculty must ensure that precautions are in place to prevent the forms of dishonesty mentioned above. Faculty will also avoid, as far as practical, academic procedures that create temptations to violate the Honor Code. Faculty alone has the right and obligation to set academic requirements. However, the students and faculty will work together to establish optimal conditions for honorable academic work.

Violations of the Honor Code

Examples of conduct that will be regarded as being in violation of the Honor Code include:

- Copying from another's examination paper or allowing another to copy from one's own paper.
- Plagiarism in any shape or form. Plagiarism is defined as the use, without giving reasonable and appropriate credit to or acknowledging the author or source, of another person's original work, whether such work is made up of code, formulas, ideas, language, research, strategies, writing or other form(s).
- Giving or receiving unpermitted aid either in person or via electronic devices.
- Engaging in unauthorized collaboration on academic assignments or examinations.
- Representing as one's own work the work of another.

Penalties for Violating the Honor Code

Most student disciplinary cases have involved Honor Code violations. Of these, most cases arise when a student submits another's work as his or her own, gives or receives unpermitted aid, or engages in unauthorized collaboration. If a violation occurs during a quiz or on a homework assignment, the student will receive a zero for that quiz or assignment. If a violation occurs on an examination, the student will receive a failing grade for the course. The standard penalty for a first offense may include suspension from the College of Engineering and Applied Science for a severe infraction of the Honor Code. The penalty for a second violation will be expulsion from the College of Engineering and Applied Science.

It is the responsibility of the student to seek clarification from the instructor when in doubt about these guidelines.

By signing below, I affirm that I have read and understood the Student Honor Code and will abide by its provisions.

Student Signature