

FALL 2015 CSCI 515 Course Syllabus

Fundamentals of Programming C/C++

INSTRUCTOR:

Stephen Ha, Ph.D., Adjunct Faculty, Department of Computer Science

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Office Hours: Thu 5:00-7:00pm, other times by appointment only

Please when you e-mail include 515 in the subject of your message

CLASS MEETINGS: CLASS MEETINGS:

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W 7:20 pm-10:00 pm. Location: JOUR234

Lab hours: Thu 5:00-7:00pm, JOUR 102

DESCRIPTION:

This is an advanced programming course using a high level programming language, C and C++. Specific objectives are to introduce the development of algorithms as a disciplined approach to problem solving; to present programming practices in design, coding, debugging, testing and documentation of computer programs; to provide the student with the fundamental knowledge necessary for further study in the field of computational sciences.

REQUIREMENTS AND OBJECTIVES:

Students should be familiar with basic C/C++ coding prior to this class.

STUDENT LEARNING OUTCOMES (to be used in the assessment of this course)

- To understand the internal representation of the various data types.
- To review the language syntax and learn new syntax you have not previously used in programming applications.
- To correctly solve programming problems and learn how to develop algorithms.
- To examine the internal representation of two and three dimension arrays in C/C++.
- To understand dynamic memory allocation, parameter passing, the use of pointers.

MANDATORY TEXTBOOK:

C++ How to Program (7th Edition), by Paul J. Deitel, Harvey M. Deitel , ISBN-13: 978 0136117261

EVALUATION:

Your grade for the course will be based on the following percentages:

First Test	25%
Second Test	25%
Labs / Assignments	25%
Final Test	25%

Final test might be in any form, a program, such as project presentation, a regular test, or a paper. The instructor will make a decision after a cooperative discussion with the students.

You should do your own work on exams/projects and for computer assignments. Copying another student's work is not acceptable. Any indication of cheating and/or plagiarism on an exam/assignment/project will be an automatic 0 (zero) for the exam/assignment/project for all students involved. Yet, based on cheating and plagiarism activity in any section of class, instructor holds the right

to give F grade to the identified student(s). Regarding codes in assignments / projects, you may be required to explain the code you submitted. In case of discursive explanation, the instructor holds the right to lower your grade. You are given many programming assignments during semester. The student submitting other's source code will take -1 for the this specific assignment. A student having more than three -1 cannot gain any point for the Lab/Assignments section of class evaluation. It means that you will automatically lose 30% of your total grade.

Letter grades will be assigned according to the following scale:

- A - at least 90%
- B - at least 80%
- C - at least 70%
- D - at least 60%
- F - less than 60%

STUDENTS WITH DISABILITIES

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library, Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamu-commerce.edu

ACADEMIC ETHICS:

“All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.” (See Student’s Guide Handbook, Policies and Procedures, Conduct). Absolutely no usage cellular devices (texting and talking) in class. Laptops could only be used related to class material during class, otherwise laptop will not be allowed to turn on. Talking and other activities that distract/disturb others in the class would not be tolerated. Instructor holds the right to ask you leave the classroom any time based on any of disturbing attitude. Each student should sign the sign-sheet if asked by instructor. Late student may not be allowed to participate the lecture.

ATTENDANCE POLICY:

Attendance is mandatory. Students are expected to be present at all class lectures and are responsible for all material covered in class and assigned in readings.

COURSE REQUIREMENTS and DEADLINES:

Credit will be given for ONLY those exams, programs, and/or projects turned in no later than the deadline as announced by the instructor of this class, unless prior arrangement has been made with the instructor. Late programs/ projects/assignments can or cannot gain partial credit. Credit for late programs/projects/assignments will be announced with the description of it. Assignments and projects will be posted in university’s eCollege communication system. Detailed information will be provided by the instructor. Students also should turn in their assignment through eCollege portal. Each student is responsible for the content/instructions of email communications.

	Content/Lecture	Assignments/Lab
Wk. 1	Ch.1 to 2. Cin, cout.	Quiz, lab programming, take home assignments
Wk. 2	Ch. 3. Class and object	ditto
Wk. 3	Ch 4 to 5. Control statements	ditto
Wk. 4	Ch. 6. Functions, recursion, references	ditto
Wk. 5	Ch. 7. Arrays and vectors	ditto
Wk. 6	Ch. 8. Pointers	ditto
Wk. 7	Ch. 15. Stream input/output	ditto
Wk. 8	Ch. 20. Data structures	ditto
Wk. 9	Ch. 21. Structs,bits,char	ditto
Wk. 10	Ch. 19. Searching and Sorting	ditto
Wk. 11	Ch. 17. File processing	ditto
Wk. 12	Ch. 9. Classes Part 1	ditto
Wk. 13	Ch. 10. Classes Part 2	ditto