Endicott College
Beverly, Massachusetts
School of Arts and Sciences
Computer Science Department
Course Syllabus

Course #:	CSC 160.01
Course title:	Introduction to Programming in C++
Credits:	4
Pre-requisites:	None
Semester:	Spring 2014
Meeting times:	Lectures T/Th 11:00am–12:15pm in LSB 312 Labs Tuesday 9:00–10:50am in LSB 312
Textbook:	None required; Recommended: • *C++ How to Program* (Deitel & Deitel, 2013) • *Programming Principles and Practice using C++* (Stroustrup, 2009)
Web page:	http://hank.feild.net/courses/2014-sp/csc160

Instructor:	Henry Feild, Ph.D.
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Officie hours:	T/Th 2–3:30pm and by appointment

Catalog Description

Provides an introduction to computer programming concepts and functions. Introduces problem-solving methods and algorithm development using software programming. Includes procedural and data abstractions, program design, debugging, testing, and documentation. Covers data types, control structures, functions, parameter passing, library functions, and arrays. Weekly programming laboratory exercises in C++. *Required for CSC majors and minors. Satisfies the Quantitative Reasoning Requirement.* No prerequisites.

Learning Outcomes

At the completion of this course the student should be able to:

- demonstrate an appreciation for the practice and theory of programming languages
- demonstrate mastery programming in C++
- apply problem solving skills and program modeling techniques
- use basic programming concepts, i.e.: program structure and flow control, simple internal data structures, program switches, iteration, selection and functions
- appreciate the need for documentation, brevity, and memory usage in programming

Teaching/Learning Strategies

This course will consist of a mixture of lectures, labs, and discussions. Students are expected to complete homework, programming assignments, and in-class exercises.

Outline

Week	Dates	Topic
1	Jan. 28, 30	Setting up a programming environment; Planning software projects
2	Feb. 4, 6	Variables; Input/Output
3	Feb. 11, 13	**Quiz 1**; Conditionals; Switch statements; Test cases
4	Feb. 18, 20	Functions; Documentation
	Feb. 25	*No class—Faculty/student internship conference day*
	Feb. 27	**Exam 1**
5	March 4, 6	More functions; structs
6	March 11, 13	Pointers; Drawing memory
	March 18, 20	*No class—Spring break*
7	March 25, 27	**Quiz 2**; Loops (while, do while, for); Arrays
8	April 1, 3	Double for loops and 2D arrays
9	April 8	Debugging
	April 10	**Exam 2**
10	April 15, 17	File I/O; Object Oriented Programming (OOP)
11	April 22, 24	More OOP; Searching
12	April 29, May 1	**Quiz 3**; Sorting; Graphics
13	May 6, 8	Bringing it all together; Review
	May 15	**Final Exam** (cumulative)

Grading

Grading is as follows.

Exam 1	15%	**Programming Assignments**	20%
Exam 2	15%	**Homework/Labs**	15%
Final Exam	20%	**Participation**	5%
Quizzes	10%		

			89–87	=	**B+**	79–77	=	**C+**	69–67	=	**D+**	
100–94	=	**A**	86–83	=	**B**	76–73	=	**C**	66–63	=	**D**	59–0 = **F**
93–90	=	**A-**	82–80	=	**B-**	72–70	=	**C-**	62–60	=	**D-**	

Required Texts/Technology

There are no required texts for this class. There are a couple of suggested texts (see above). These texts may be helpful for students to see the material presented in a different way from

how it is covered in class. Technology is not required as LSB 312 is equipped with the necessary software. However, students are encouraged to set up their computers with a text editor and C++ compiler in order to work on assignments outside of LSB 312.

Late Policy

Each student will be given four (4) floating late days for programming assignments and labs throughout the semester. Using a late day will not result in any late penalization. Each late day is a 24 hour period—if an assignment is due Tuesday at 5pm, using one late day makes the assignment due Wednesday at 5pm; using two makes the due date Thursday at 5pm, etc. Homework submitted late, or assignments/labs submitted late after all late days have been used, may not be collected and a grade of 0 may be automatically assigned. It is the student's responsibility to keep track of used late days.

ADA Policy

If you as a student qualify as a person with a disability as defined in Chapter 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, the Americans with Disabilities Act Amendments Act of 2008 (ADAAA), you are strongly encouraged to register with the Center for Teaching and Learning. The Center for Teaching and Learning is located in the Diane M. Halle Library room 201 and online at http://www.endicott.edu/academicresources. As a student registered with the Center for Teaching and Learning, it is your responsibility to present your accommodation letter to your instructor at the beginning of each semester.

Course Expectations

For each credit hour, students are expected to spend a minimum of two hours on work out-side of class each week. For this four credit course, that is a minimum of eight hours each week.

Students must review the Academic Calendar published by the Registrar's Office online at: http://www.endicott.edu/Academics/AcademicCalendar.aspx. Class attendance is expected of all students up to and including the last day of scheduled classes in the semester. Students must plan accordingly.

Attendance/Participation

Students should attend every class and lab. However, students may miss up to three classes/labs excused or unexcused, without notifying the professor. In-class exercises cannot be made up for credit and office hours will not be used to cover material missed due to an absence. Participation will also be affected. **Absences beyond three classes may result in up to a 5% penalty on the final course grade per absence.** Please contact the professor in the event of extenuating circumstances resulting in the need for a prolonged absence.

Participation, which includes in-class exercises, is worth 5% of the final grade. Students who miss class, do not participate when in class, and consistently perform poorly on in-class

exercises will receive an overall participation grade of 0. Students who always come to class, are eager to participate, and consistently perform well on in-class exercises will receive the full 5 participation points, **and may earn up to 5 points extra credit.**

While in class, students are expected to be fully present and engaged. Using phones or lab computers in class for any non-class purpose—e.g., texting, making calls, checking email, watching videos, etc.—is strictly forbidden. Laptops are not to be used in class unless otherwise indicated. Side discussions, covert texting, or any other failure to pay attention will negatively impact your grade. Violators will be warned once, and asked to leave the lecture thereafter. Being asked to leave will be counted as an absence, regardless of when during the class the incident occurs. Consistent violations will result in failure of/dismissal from the class.

Working with Others

You may discuss assignments with other students, but you *may not* share code, or view another student's assignment code prior to submission. *All code you submit must be your own.* If you are having trouble with a concept and would like help from a classmate, talk it out, draw it out, or come up with a similar example to code up that is not part of the assignment itself. Submitting someone else's code, in part or in whole, will be considered a violation of the Academic Integrity Policy (see below). Keep in mind, it is generally quite easy to detect when the same code has been submitted by two students, even when the time is spent to make the code look different. *Also note, you must be able to explain all of your submitted code to the professor if asked.*

Academic Integrity

Students are expected to abide by the *Academic Integrity Policy* of Endicott College. Cheating will result in failure of the assignment or course or dismissal from the College. Make sure to always cite sources and if you confer with classmates on an assignment, list who those individuals are at the top of your submission. You are expected to be capable of explaining any code you submit to the professor when asked. Submitting identical or near identical assignments, submitting code that is not your own (whether or not you indicate whose it is), not making clear who you consulted with, or not being able to explain your submitted code when prompted will all be considered a violation of the Academic Integrity Policy.

Subject to Change

This syllabus is subject to change at the discretion of the professor. Updates will be announced and the most recent version will be available on the course website.