

CMPS 221 - Programming Fundamentals

Syllabus for Winter 2015 (Section 03 - CRN 12192)

Instructor Jay Manibo
Office Sci III 321
Email jayta@cs.csubak.edu (labs/homework submission)
mmanibo3@cs.csubak.edu (general questions and communication)
jay.manibo.csub@gmail.com (general questions, CHAT)
Phone (661) 654-2819, 661-748-3696 (text)
Location SCI III, Room 311

Schedule

	SUN	MON	TUE	WED	THU	FRI	SAT
		Homework from prior week is due at midnight	Homework for the week is assigned			Labs for current week are due at midnight	
11:30am - 1:00pm						OFFICE HOURS BY APPOINTMENT	
5:50pm - 7:30pm			LECTURE		LECTURE		
7:30pm - 8:45pm			LAB		LAB		

Course Description

Introduces the fundamentals of procedural programming. Topics include data types, control structures, functions, arrays, and standard and file I/O. The mechanics of compiling, linking, running, debugging and testing within a particular programming environment are covered. Ethical issues and an historical perspective of programming within the context of computer science as a discipline are given.

ACM/IEEE Body of Knowledge Topics

(CS-PF1/CE-PRF1,2) Fundamental programming constructs and paradigms
(CS-PF2/CE-PRF3) Algorithms and problem solving
(CS-PF3/CE-PRF4) Data structures (Introduction: basic types, strings and arrays)
(CS-SP1/CE-PRF0) History of computing

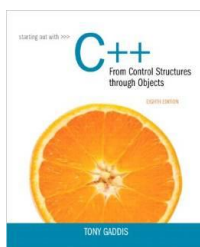
Prerequisite

Passing score on ELM OR satisfaction of the ELM exemptions AND a passing score on the Pre-Calculus Readiness Test (see Class Schedule for details) OR completion of math remediation.

Textbook

HIGHLY RECOMMENDED

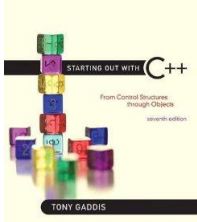
You may use either the 7th or 8th edition of the textbook



8th edition

Starting Out with C++: From Control Structures through Objects
Tony Gaddis

Publisher: Addison Wesley, 2014.
ISBN-10: 0133769399

	<p>7th edition</p> <p>Starting Out with C++: From Control Structures through Objects Tony Gaddis</p> <p>Publisher: Addison Wesley, 2011. ISBN: 0132576252</p>
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Material Covered

Chapter 1	Introduction to Computers and Programming
Chapter 2	Introduction to C++
Chapter 3	Expressions and Interactivity
Chapter 4	Making Decisions
Chapter 5	Loops and Files (6th edition: Looping)
Chapter 6	Functions
Chapter 7	Arrays
Chapter 8	Searching and Sorting Arrays
Chapter 9	Pointers
Chapter 10	Characters, Strings and More about the string Class
Chapter 11	Structured Data
Chapter 13	Introduction to Classes (if there is enough time in the quarter)

Topics by Week (subject to change):

WEEK 1

Chapter 1: Introduction to Computers and Programming
Chapter 2: Introduction to C++ (2.1 - 2.8, 2.11, 2.13 - 2.14)
Chapter 3: Expressions and Interactivity (3.1, 3.2, 3.4)

WEEK 2

Chapter 2: Introduction to C++ (2.9)
Chapter 3: Expressions and Interactivity (3.2 - 3.5)
Chapter 4: Making Decisions (4.1 - 4.7, 4.9 - 4.11)
Chapter 5: Looping (5.1 - 5.3)

WEEK 3

Chapter 2: Introduction to C++ (2.12)
Chapter 3: Expressions and Interactivity (3.6)
Chapter 4: Making Decisions (4.8, 4.12, 4.14, 4.15)
Chapter 5: Looping (5.3 - 5.8, 5.11 - 5.13)

WEEK 4

Review - Chapters 1-5 &
Sample Midterm Discussion.

WEEK 5

Written midterm
Chapter 6: Functions (6.1 - 6.10, 6.14)

WEEK 6

Chapter 6: Functions (6.1 - 6.10, 6.14) continued

WEEK 7

Chapter 6: Functions (6.10 - 6.15)
Chapter 10: Characters, Strings and the string Class (10.1 - 10.5)
Chapter 3: Formatted Input and File I/O (3.9, 3.14)
Chapter 5: Using a Loop to Read Data from a File (5.9)

WEEK 8

Chapter 7: Arrays (7.1 - 7.5, 7.7, 7.11)

Written midterm

WEEK 9

Chapter 9: Pointers (9.1 - 9.7, 9.9)

WEEK 10

Additional topics (e.g. Structured Data, Classes)

**schedule is subject to change

Attendance:

Students are responsible for their own attendance. The course material and assignments will be posted on the course website.

Academic Integrity Policy:

Labs may be worked on and discussed in groups. If the assignment is a group assignment, the group may turn in one assignment for the entire group. If the assignment is an individual assignment, each student must turn in their own code; no direct copying is allowed. Refer to the Academic Integrity policy printed in the campus catalog and class schedule.

Services for Students with Disabilities:

To request academic accommodations due to a disability, please contact the Office of Services for Students with Disabilities (SSD) as soon as possible. They may be reached at 661-654-3360 (voice), or 661-654-6288 (TDD). If you have an accommodations letter from the SSD Office, please present it to me during my office hours as soon as possible so we can discuss the specific accommodations that you might need in this class.

Tutoring Center and Open Use Computer Lab:

The walk-in computer lab in Sci III 324 is available for use by students in this course outside of class time on a first come, first serve basis. Tutoring is also provided on a limited basis in the walk-in lab. A tutoring schedule will be posted on the department website by the end of the first week of classes. Students in this course may ask the tutors for assistance on assignments. The tutors are not allowed to solve the assignment for you, but they can assist with problems like cryptic compiler errors.

Labs:

Lab assignments are posted on the course website. Labs are usually worth 10 points and usually involving writing 1-2 short programs. The labs will be assigned every assigned lab schedule and will be due by midnight on Friday the same week. Partial credit will be given for incomplete labs. Late labs will be penalized 25% the first day late, and considered zero afterwards. The lowest lab grade will not be counted towards the overall lab grade.

Homework:

Homework assignments are posted on the course website. Homework assignments are usually worth 10 points and consist of multiple small programs. Each homework assignment will generally be assigned every Tuesday and will be due by midnight Monday the following week.

Programs which do not compile may be given partial credit depending on the severity of the error. Late homework will be accepted and will be marked down 25% the first day late. If there is a notice on the assignment that late homework will not be accepted beyond a certain date, then that is the final day homework will be accepted. Otherwise, assignments more than one day late will not be accepted. Special concessions may apply at my discretion.

Extra Credit Assignments:

You are encouraged to tackle any extra credit assignments that are usually given during the quarter. The more practice you get, the better you will be, and the extra points don't hurt either.

Penance Test:

Discussed in class. Affects late submission policy.

Labs/Homework Submission:

Assignments are submitted by emailing the instructor all assignment code files from the Computer Science department server. Do not use GMail, webmail or any other email method as the campus firewall and spam filter may silently reject the email. All assignments **MUST** be submitted to the instructor's Sleipnir account.

Midterms:

Midterm 1 will be given during week 4/5

Midterm 2 will be given during week 8/9

Makeup midterms will not be given without a compelling or valid reason. Failure to take a midterm without prior notification will result in an automatic score of zero.

Final:

Finals Week is March 18 - 21. Our final will be on **Thursday, March 19, 5:00pm – 7:30pm**. If you have a time conflict, you may arrange to take the final at a different time by emailing or speaking to me.

Grading:

Minimum Score	0	60	64	67	70	74	77	80	84	87	90	94	97
Letter Grade	F	D-	D	D+	C-	C	C+	B-	B	B+	A-	A	A+

Labs/Homework	35%
Midterm 1	20%
Midterm 2	20%
Final	25%
Class Participation Bonus	2.0%
No-Late Buddy Bonus	0.5%

At the end of the quarter:

1. I will also allow you to drop your lowest homework score
2. I will award—at my discretion—points for class participation. When your total percentage points have been tallied up for the quarter, you can earn:
 - a. 0 – For no class participation
 - b. 1 – Some participation
 - c. 2 – Active, constant participation

For example, if you have an 88% as your final score, and I know you have been actively participating in class discussion, I will award you 2 additional points to bring your grade score to 90% for the quarter.