

CIS 22A

Fall, 2014

BEGINNING PROGRAMMING METHODOLOGIES IN C++

INSTRUCTOR: Dr. Kamran Eftekhari

OFFICE:

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OFFICE HOURS: F 11:30 - 12:30 p.m

CLASS HOURS: TTH 6:00 p.m. – 7:50 p.m. (AT 204)

FINAL:

Prerequisites:

(Students may receive credit for either Computer Information Systems (22A and 22B) or 27, but not both.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 114 or equivalent.
(Formerly Computer Information Systems 71A.)

Course Description:

An introduction to computer programming. Its primary objective is to teach problem solving using the C++ programming language. Emphasis will be placed on structured procedural programming with an introduction to object-oriented programming. Designed primarily for computer science and related transfer majors.

Student Learning Outcome (1): *Design solutions for introductory level problems using appropriate design methodology incorporating elementary programming constructs.*

Student Learning Outcome (2): *Create algorithms, code, document, debug, and test introductory level C++ programs.*

Student Learning Outcome (3): *Read, analyze and explain introductory level C++ programs.*

Course Outline: Please refer to course calendar.

Attendance:

You are expected to attend all class sessions. Lectures will be the main source of information for both labs and exams.

You will **not** be automatically dropped if you do not come to class. Thus, be sure to withdraw officially to avoid 'F' grade on your transcript.

Required Text:

Starting Out with C++: From Control Structures through Objects, 8th Edition by *Gaddis*
ISBN-10: 0133796337 • ISBN-13: 9780133796339

Assistance:

CodeBlocks Compiler may be downloaded for free from <http://www.codeblocks.org/downloads/binaries/> .

Course materials are available <https://catalyst.deanza.edu>.

Student Success Center, located in S43, does provide tutors pending availability. Visit <http://deanza.edu/studentsuccess/tutorial> or phone (408) 864-8683. CIS has its own tutorial program. Sign up in Admin 119.

Grading:

Class/Online Participation	100 points
Programming Lab Assignments (8)	400 points
Midterms (2)	300 points
Final	200 points

Course letter grades will be assigned:

A+	A	A-	B+	B	B-	C+	C	D	F
99+%	92-98%	90-91%	88-89%	82-87%	80-81%	78-79%	70-78%	60-69%	<60%

Where percentages are rounded to the nearest whole number.

Lab assignments will be graded on the following criteria:

- 1) correctness
- 2) structure
- 3) style, clarity, and documentation
- 4) theme issues

Late Lab assignments will be accepted for one week after the due date with a 5 point penalty. After the one-week limit the assignment will receive no credit.

Late assignments must be submitted in hard copy.

E-mail messages and questions to eftekhrikamran@fhda.edu. For security purposes unsolicited attachments will not be downloaded.

Academic Honesty

With the exception of Lab 1A & B, all programming assignments are expected to be your own original code. **Never give a soft copy or a hard copy of any lab assignment to another classmate. Any duplicate assignments submitted will receive zero points without regard to who originated and who copied.**

Motto:

“You learn to play tennis by playing tennis. You learn to program by writing programs.”

September

Parts of a Computer; Programming Languages; *First Program (1.1 -> 1.7, 2.1->2.2, 3.1)	22	23	24	25	26
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October

*Binary Number System; *Design Tools; Fundamentals of 'C++' (2.3 -> 2.16)	29	30	31	2 Lab 1(A-D)	3
Expressions & their evaluation (3.2 -> 3.6); More about I/O (3.7-3.8) Math "Built-In" Functions (3.9)	6	7	8	9 Lab 2	10
Functions with no parameters (6.1->6.3) Selection (4.1 -> 4.9)	13	14	15		17
Selection (4.10 -> 4.14) Functions with parameters (6.4)	20	21 Lab 3	22	23 Midterm 1 (Ch 1-3)	24
Introduction to loops (while loops) (5.1 -> 5.4) Looping (5.7, 5.8)	27	28	29	30	31

November

<i>do while & for loops</i> (5.5 -> 5.6, 5.9) Nested loops (5.10) Loops with Files (5.11)	3	4 Lab 4	5	6	7
Inter-Function Communication (6.5-> 6.13)	10	11	12	13 Lab 5	14
Overloading Functions (6.14) One-dimensional arrays (7.1 -> 7.2)	17	18	19	20 Midterm 2 (Ch 4-6)	21
One-dimensional arrays (7.3 -> 7.7)	24	25 Lab 6	26	27	28
				Thanksgiving Holiday	

December

Linear Search (8.1) Selection Sort (8-5 p. 374)	1	2 Lab 7		4	5
	8	9 Lab 8 (6:15 pm-8:15 AM)	10	11	12

Important Dates

Saturday, October 4: Last day to add.
 Sunday, October 5 Last day to drop with no grade of record
 Friday, November 14: Last day to drop with a 'W'.

Holidays –

Nov 10: Veteran's Day
 Nov 27 - 28: Thanksgiving

All assignments must be turned in by 6:00 P.M. on Tuesday, December 9 – No Exceptions