## CIS -022A-61Y Beginning Programming Methodologies in C++ - Winter 2015 CRN 32257

Instructor: Joe Bentley831.239.8173 (< 9 pm)

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Class Schedule: Lecture: TTh 6:00-7:50 pm Location: ATC 202 Online Time : W 7:00-8:15 pm Office Hours: Tuesday and Thursday 5:15-5:45 pm Location: ATC Lab (Room 203)

**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.

**Requisites:** (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

## **Student Learning Outcomes:**

- Design solutions for introductory level problems using appropriate design methodology incorporating elementary programming constructs.
- Create algorithms, code, document, debug, and test introductory level C++ programs.
- Read, analyze and explain introductory level C++ programs.

**Textbook**: (Required) <u>Starting Out with C++: From Control Structures through Objects</u>, 8th Edition by Gaddis

**Assignments**: There will be **eight** programming assignments in the class. The description of each assignment will be posted on the class web page. Each assignment is due at the <u>beginning</u> of the class session on the specified date on the schedule. <u>Assignments will not be accepted late</u>. Assignments are to be completed individually and must fulfill the program requirements. <u>Assignments with compiler errors will not be accepted</u>. Only seven assignments will be used to determine your final grade. Your programming assignment with the lowest grade of the first seven assignments will be discarded. The last assignment may not be discarded.

**Lab Exercises:** There will be a lab exercise (usually a short programming problem) after each class session. These exercises will be due before the next class session.

Attendance: You are responsible for all material covered in each class meeting. Programming Assignments and Lab Exercises are due on the dates specified, even if you are absent. The midterm and final may only be made up if prior arrangements are made.

**Class Format**: Class sessions will consist of a lecture/discussion followed by a lab exercise.

**Tests**: There will be a midterm and a final. If you are late for the test, you will not be permitted any extra time for the test.

**Help from the Instructor**: It is recommended that you take advantage of the online time, and the instructor's office hours. The instructor is available to answer individual questions, assist with compiler problems, assist with debugging programs, and discuss and clarify assignments. It is also recommended that you make use of email to ask questions or to seek assistance with programming assignments.

## Grading Policy:

Programming Assignments	140	points 20 each	Points	Percent	Grade
Lab Exercises	60	" 3 each	360-400	90-100%	А
Midterm	75	"	320-359	80-89%	В
Final	125	"	280-319	70-79%	С
Extra Credit: Codelab	~20	points prorated	240-279	60-69%	D
			Below 240	Below 60%	F
Total	400		+ or – added if within 2% of grade boundary		

You will not be automatically dropped from the class, even if you discontinue attending. It is your responsibility to withdraw by the end of the eighth week of classes.

## CIS 22A Class Schedule – Winter 2015 – Joe Bentley

Tuesday	Thursday	Read
1/6	1/8	Chapter 1
Class Introduction and Overview	Programming Concepts	
	Compilation	
	Lab Ex #1	
1/13	1/15 Assignment 1	Chapter 2
cout	due	Last date to:
Types, Variables, constants	Statements & Expressions	add 1/17
Lab Ex #2	Assignment statements	
	Lab Ex #3	
1/20	1/22 Assignment 2	Chapter 3
C++ Input	due	
	Formatted output	
Lad EX #4		
1/27	Lab EX #3	Chapter 4
1/27	duo Assignment 3	Chapter 4
if/else	switch statement	
lah Ex #6	Conditional operator	
	Lab Fx #7	
2/3	2/5 Assignment 4 due	Chapter 5
Introduction to Functions	Loops	
Lab Ex #8	Lab Ex #9	
2/10	2/12	
More Looping	MIDTERM	
Lab Ex #10		
2/17	2/19 Assignment 5 due	
File I/O	More File I/O	
Lab Ex #11	Lab Ex #12	
2/24	2/26	Chapter 6
Functions – pass by value	Functions – pass by reference	Last date to
		withdraw
Lab Ex #13	Lab Ex #14	2/27
3/3	3/5 Assignment 6 due	
Still more functions	Introduction to Arrays	
Lab EX #15	Lad EX #16	
3/10	3/12 Assignment 7 due	Chapter 7
More Arrays	Sorting & Searching	
Lab Ex #17	Lab Ex #18	
3/17	3/19 Assignment 8 due	
Putting it together	Review	
	Leh Eversies 20	
3/24		
Final Cide - 9:45 am		
rinai 0:15 – 0:15 pm		