COMPUTER SCIENCE 150, Spring 2014
INTRODUCTION TO PROGRAMMING
TuTh 11:30 AM-12:50 PM Henry Hall Room 121

INSTRUCTOR:

Eric Dodson, M.S.
Office: Wesselkamper 110
Phone: 739-8363
email: eric.dodson@chaminade.edu

OFFICE HOURS: MWF 10:30-11:20 AM,
TuTh 9:30-10:20 AM, and by appointment

TEXT :

Starting out with C++ From Control Structures through Objects (Brief Version 6th edition, Tony Gaddis, ISBN-13: 978 0-13-602253-4

COURSE DESCRIPTION:

The bulk of this course will be dedicated to learning how to write, compile, execute and debug computer code. We will be using C++ as our programming language. We will use the Dev-C++ Integrated Development Environment (IDE) which can be downloaded for free via the web.
The final few weeks of the course will be spent giving the student an overview of computer science and its important fields of study (see detailed list in course content section). Groups of students will be assigned to each topic and tasked to report on that topic to the rest of the class.

COURSE LEARNING OUTCOMES:

At the conclusion of the CS150 course students will demonstrate:

1. A knowledge of the following topics, to include an understanding of their basic operation, integration computer science as a whole and the current outlook in research and employment on a national and local level:

    Computer Organization and Architecture
    Operating Systems
    Computer Security
    Networks
    Internet Technologies
    Database Systems
    Software Engineering and Programming

2. An understanding of the top-down stepwise refinement approach to program development;

3. An understanding of the modular approach to program development;

4. The ability to use the basic features of the C++ language;

5. An understanding of objects and classes;

6. An understanding of the input, processes and output of a program;

7. The ability to document, code, test and deliver C and C++ programs

TOPICS:

- Overview of:
  Computer Organization and Architecture
  Operating Systems
  Computer Security
  Networks and Network Security
  Internet Technologies
  Database Systems
  Software Engineering

- C++ Basics:
  Variables
  Data Types
  Operators
  Built-in Functions

- Input and Output:
  Console I/O
  File I/O

- Functions

- Decision Structures

- Repetition Structures:
  While-loop
  For-loop

- Arrays

- Classes and Objects

GRADING:

Grading will be based on the following breakdown:

Item	Points	Date
Exam 1	10	02/06/14
Exam 2	10	03/06/14
Exam 3	10	04/10/14
Final Exam	10	05/07/14
Quizzes	10	TBA
Assignments	50 (5*10)	TBA
TOTAL	100	

With the following cutoffs:

Grade	Total Points
A	90-100
B	80-89
C	70-79
D	60-69
F	<60

ASSIGNMENTS:
One learns how to code by writing code. The assignments will be to write, compile and execute a program designed to accomplish a given task. You will have about two weeks to work on each assignment. Get started early, and come get help if you get stuck. Late assignments will be penalized at a rate of 10% each school day (Monday-Friday)

USB THUMB DRIVE:
We will be using DevC++ to write and compile programs. This software can be downloaded for free and stored on (and run from) a USB thumb drive. You will need to get a USB thumb drive for this class (1 gigabyte will be fine)

GENERAL EXPECTATIONS:
You are responsible for all the material covered in class. Don't miss class. Class time is very valuable, pay close attention and take good notes. Be courteous to me and your fellow classmates. Get started early on assignments and come get help if you get stuck. If you are having difficulty, come see me as soon as possible.

POLICY ON CELL PHONES AND MUSIC DEVICES:

Because electronic devices, such as cellular phones, pagers, and musical devices can be disruptive to normal classes, the following is the policy for all Natural Sciences and Mathematics classes at Chaminade. Electronic devices are also prohibited during exams.

Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, unless specifically permitted by your instructor. Use of cell phones and music devices in laboratories is a safety issue. In addition, use of cell phones and music devices in any class is discourteous and may lead to suspicion of academic misconduct. Students who can not comply with this rule will be asked to leave class and may be subject to laboratory safety violation fines. Please refer any questions to the Dean of Natural Sciences and Mathematics.