

Fall 2009 COP 3223 Section 1 Syllabus

Instructor: Joseph J. LaViola Jr.

Office: Engineering III Room 321

Hours: Mon. 11:30am- 12:30pm

Tues. 4:00pm-5:30pm

Wed. 11:30am- 12:30pm, 6:00pm-7:00pm

Email: jjl@eecs.ucf.edu

If you want to email me, MAKE SURE to enter in the subject line “**cap3223**” followed by **your name**.

Section 1 web page:

<http://www.eecs.ucf.edu/courses/cop3223/fall2009/section1>

Course Topics

This course gives students a thorough introduction to computer programming using the C language. Topics will include:

1. History of C
2. Strengths and weaknesses of C
3. C fundamentals
 - simple programs
 - variables and assignment
 - layout of a C program
4. Formatted Input and Output
5. Expressions
 - arithmetic operators
 - assignment operators
6. Selection statements
 - logical expressions
 - if statement
 - else statement
 - switch statement
7. Loops
 - while statement
 - do statement
 - for statement
 - exiting from a loop
8. Types
 - integers

- floats
- characters
- type conversion
- 9. Arrays
 - one dimensional arrays
 - multi-dimensional arrays
- 10. Functions
 - defining and calling functions
 - function declarations
 - function arguments
 - return statement
- 11. Program Organization
 - local/global variables
- 12. Pointers
 - pointer variables
 - address and indirection operators
 - pointer assignment
 - pointers as arguments and return values
- 13. Strings
 - string literals
 - string variables
 - reading and writing strings
 - using the C string library
- 14. Structures, Unions and Enumerations
 - structure variables
 - structure types
 - unions
 - enumerations
- 15. Advanced use of pointers
 - dynamic storage allocations
 - allocating and deallocating storage
 - pointers to functions
 - pointers to pointers
- 16. The preprocessor (time permitting)
- 17. File I/O (time permitting)

Assignments and Grading Policy

Component	Percentage of Total Grade
Exam #1	20%
Exam #2	20%
Final Exam	30%
Programming Assignments (6 total)	30%

Programming Assignments

There will be six assignments each worth 5% of the course grade. The academic misconduct policy and late assignment policy are discussed in the common syllabus. All programming assignments are due by 11:59pm on the assignment due date. It's critically important to do these assignments in order to aid understanding of the course material. We will be using the programs assigned in COP 3223 Section 3. However, each assignment will have an extra credit component for those students wishing to flex there programming muscles.

In order to grasp the material fully and feel comfortable with C, one needs to write **MORE** programs than are assigned. Several ungraded programs and problems will be posted on the course web page, so students can get the necessary practice. Students are **STRONGLY** encouraged to work on these programs and come to their instructor or course teaching assistants to get help, if necessary. **As an incentive to do these exercises, many of these problems will be found on the exams.**

Programming Assignment Due Dates

Assignment	Due Date	Day of the Week
Program #1	Sept 9	Wednesday
Program #2	Sept 23	Wednesday
Program #3	Oct 14	Wednesday
Program #4	Oct 28	Wednesday
Program #5	Nov 18	Wednesday
Program #6	Dec 2	Wednesday

Exams

Each exam will have two parts: a multiple choice section and a free response. These exams will be closed book, but you will be able to bring in the C quick reference sheet found on the class web page. The first two exams will be 50 minutes in length and the final exam will be three hours.

Exam #1 – Wednesday, September 30, 2009

Exam #2 – Wednesday, November 4, 2009

Final Exam – Monday, December 14, 2009 (10:00am – 12:50pm)

Letter Grades

The instructor reserves the right to use plus/minus grading in this course. Grading will depend on how the class performs on the programming assignments and the exams. Thus, an A could dip into the high 80s, a B into the high 70s, etc... There will be no strict curve so everyone has the potential to get an A.

Tentative Schedule

This is a tentative schedule for the course and is subject to change. The web page will have the actual schedule for each week.

Week	Topic
Aug 24 – 28	Go over syllabus, Introduction to C Reading: Chapters 1 and 2
Aug. 31 – Sept 4	C Basics, Formatted Input and Output, Expressions Reading: Chapter 3 and 4
Sept 8 – 11	No Class on September 7 Selection Statements Reading: Chapter 5
Sept 14 – 18	Selection Statements cont'd, Loops Reading: Chapter 6
Sept 21 – 25	Loops cont'd End of material for Exam #1
Sept 28 – Oct 2	Basic Types Exam #1 on September 30, 2009 Readings: Chapter 7
Oct 5 – 9	Arrays Readings: Chapter 8
Oct 12 – 16	Withdrawal Deadline (10/16) Functions Readings: Chapter 9
Oct 19 – 23	Functions cont'd, Program Organization, Pointers Readings: Chapter 10
Oct 26 – 30	Pointers cont'd Readings: Chapter 11 End of material for Exam #2
Nov 2 – 6	Strings Exam #1 on November 4, 2009 Readings: Chapter 13
Nov 9 – 13	Strings cont'd, Structures Readings: Chapter 16
Nov 16 – 20	Structure's cont'd, Advanced Pointer Use Readings: Chapter 17
Nov 23 – 25	No Class on November 25 The Preprocessor Readings: Chapter 14
Nov 30 – Dec 4	File Input/Output Readings: Chapter 22
Dec 7 – 11	Reading Period
Dec 14	Final Exam (10:00am – 12:50am)