

Fall 2011 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 “cop3223” followed by **your name**.

Section 1 web page:

<http://www.eecs.ucf.edu/courses/cop3223/fall2011/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. File I/O

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
 - linked lists
 - pointers to functions
 - pointers to pointers
16. The preprocessor (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, some of the programming assignments will have an extra credit component for those students wishing to flex their 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, some of these problems will be found on the exams.**

Programming Assignment Due Dates

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

Exams

The first two exams will have two parts: a multiple choice section and a free response. The final exam will be multiple choice. 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 28, 2011

Exam #2 – Wednesday, November 2, 2011

Final Exam – Monday, December 5, 2011 (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. Please note that readings will come from “C

Knights” by Guha. Lecture slides and example programs will be available on WebCourses.

Week	Topic
Aug 22 – 26	Go over syllabus, Introduction to C Reading: CKnights – Chapter 1 and 2
Aug. 29 – Sept 2	C Basics, Formatted Input and Output, Expressions Reading: CKnights – Chapter 2
Sept 7 – 10	No Class on September 5 Selection Statements Reading: CKnights – Chapter 3
Sept 12 – 16	Selection Statements cont’d, Loops Reading: CKnights – Chapter 4
Sept 19 – 23	Loops cont’d Readings: CKnights – Chapter 4,6 End of material for Exam #1
Sept 26 – 30	File I/O Exam #1 on September 28, 2011 Readings: CKnights – Chapter 5
Oct 3 –7	Arrays Readings: CKnights – Chapters 7,8
Oct 10 – 14	Functions Readings: CKnights – Chapter 9
Oct 17 – 21	Functions cont’d, Program Organization, Pointers Readings: CKnights – Chapter 9
Oct 24 – 28	(Withdrawl deadline: Oct. 27, 2011) Pointers cont’d Readings: CKnights – Chapter 10 End of material for Exam #2
Oct 31 – Nov 4	Strings Exam #2 on November 2, 2011 Readings: CKnights – Chapter 11
Nov 7 – 11	Strings cont’d, Structures Readings: CKnights – Chapter 12
Nov 14 – 18	Structure’s cont’d, Advanced Pointer Use Readings: CKnights – Chapter 13
Nov 21 – 23	No Class on November 24 Advanced Pointer Use (Linked Lists) Readings: CKnights – Chapter 13
Nov 28 – Dec 2	Advanced Pointer Use (Linked Lists) Readings: CKnights – Chapter 13
Dec 5	Final Exam (10:00am – 12:50am)