

COURSE SYLLABUS

COM390 C Programming

Course Description

This course is designed to give students the programming experience to learn and develop programs with the C language. Language and solutions development will be from a programmer's point of view. Topics include C program structure, formatting data types, operators, expressions and statements, control flow structures for looping, branches, arrays, pointers, bitwise operators, and file handling. The student will learn and understand the C pointer environment and the Microsoft Visual Studio IDE environment.

General Course Information

Number of Units/Weeks	4/10
#Hours Lecture/#Hours Laboratory/#Hours Homework	30/20/60
Prerequisite(s)	COM290
Co-requisites (s)	N/A
Course Developer(s)	S. Mayer, MS
Date Approved / Last Review	December 2008 / May 2014

Learning Outcomes

Upon successful completion of this course, students will be able to:

- Develop structured C programs using STDLIB C syntax and formats
- Use language structures and pointers for advanced program development
- Develop programs to address course tasking
- Describe C programming concepts and design methodologies

Instructional Methods Employed in this Course

Lecture and reading assignments
Hands-on exercises and labs
Research
Student presentations
Practical application of theory and skills in authentic projects
Build on prior knowledge and experience of students to enhance richness of class activities

Information Resources for this Course



Textbook

Deitel, H. M, Paul Deitel, and Associates. C How To Program, 5th edition. Upper Saddle River, NJ: Prentice Hall. 2006. ISBN-13: 978-0132404167.



Other Materials

Microsoft Visual Studio IDE



Drawing tools

N/A



Web Site Readings

N/A

Table/Topics & Assignments

Types of Assignments:

Lecture: Considered Lecture Hours

Classroom Discussion: Considered Lecture Hours

In Class Critique: Considered Lecture Hours

Delivering Oral Presentations: Considered Lecture Hours

In Class (IC) Exercise: Considered Lecture Hours

Reading: Considered Homework (HW), work done outside of class.

WebClass lesson (non-online courses): Considered HW, work done outside of class

Lab Work: Considered Lab Hours

Quiz, Midterm or Final: Considered Lecture Hours

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 1A	Introduction to course. C programming structure	3				
LAB 1A	Exercise 1: creating a program project		2		25	In class
HW 1A	Read chapters 1 & 2 (51 pages). Evaluated in project 1			5.1		
HW 1B	Project 1: Structured code			2	75	Week 2
Total Week 1		3	2	7.1	100	
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 2A	Structured program development. C program control	3				
LAB 2A	Exercise 2: syntax and control structures practice		2		25	In class
HW 2A	Read chapters 3 & 4 (65 pages). Evaluated in project 2			6.5		
HW 2B	Project 2: Function implementation			3	75	Week 3
Total Week 2		3	2	9.5	100	
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 3A	C functions	3				
LAB 3A	Exercise 3: calling library functions		2		25	In class
HW 3A	Read chapter 5 (42 pages). Evaluated in project 3			4.2		

HW 3B	Project 3: Programming control			3	75	Week 4
Total Week 3		3	2	7.2	100	
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 4A	Arrays	3				
LAB 4A	Exercise 4: manipulating arrays		2		25	In class
HW 4A	Read chapter 6 (45 pages). Evaluated in project 4			4.5		
HW 4B	Project 4: Array pointers			4	75	Week 5
Total Week 4		3	2	8.5	100	
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 5A	Pointers, basic C types	2				
LAB 5A	Exercise 5: Pointer operations		2		25	In class
Exam 5A	Midterm	1			100	In class
HW 5A	Read chapters 7 & 8 (80 pages). Evaluated in project 5			8		
Total Week 5		3	2	8	125	
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 6A	Variable argument functions & dynamic usage	3				
LAB 6A	Exercise 6: dynamic function use		2		25	In class
HW 6A	Read chapter 9 (23 pages). Evaluated in project 5			2.3		
HW 6B	Project 5: Dynamic variables			4	100	Week 6
Total Week 6		3	2	6.3	125	
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 7A	Buffer & output formatting. Structures & enumerations	3				
LAB 7A	Exercise 7: Traversing enumerations		2		25	In class
HW 7A	Read chapters 9 & 10 (50 pages). Evaluated in project 6			5		
Total Week 7		3	2	5	25	
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 8A	Dynamic data structures	3				
LAB 8A	Exercise 8: Operating vectors		2		25	In class
HW 8A	Project 6.1: Dynamic structures & IO interfacing			5		Week 10

Total Week 8		3	2	5	25	
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 9A	File & IO processing	3				
LAB 9A	Exercise 9: manipulating files		2		25	In class
HW 9A	Read chapter 11 (31 pages). Evaluated in project 6			3.1		
HW 9B	Project 6.2: Incorporating storage			3		Week 10
Total Week 9		3	2	6.1	25	
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 10A	Sequential and random file access	2				
LAB 10A	Exercise 10: file searching		2		25	In class
Exam 10A	Final exam	1			100	
HW 10A	Read chapter 12 (34 pages). Evaluated in project 6			3.4		
HW 10B	Project 6.3: Final project submission			5	150	Week 10
Total Week 10		3	2	8.4	275	

Course Hours Summary

Week	Topic	LEC Hours	LAB Hours	HW Hours
1		3	2	7.1
2		3	2	9.5
3		3	2	7.2
4		3	2	8.5
5		3	2	8
6		3	2	6.3
7		3	2	5
8		3	2	5
9		3	2	6.1
10		3	2	8.4
Total		30	20	71.1

Table/Point Breakdown

Assignment Type	Possible Points	Percentage of Grade
Midterm	100	10%
Final	100	10%

Lab exercises	250	25%
projects	550	55%
Total	1000	100%

Your Grades for this Course

Your final grade for this course will be based on an assessment by the Instructor of your performance on a number of course activities, which may include objective tests, classroom exercises, laboratory demonstrations, project papers, or other types of activities. The chart below indicates in what activities you will engage, how many possible points can be earned for each activity, and the percentage of your final grade that will be accounted for by each activity.

Students in this course should be graded following Coleman University assessment practices and policies. A point system is used in the University to indicate student performance on various required activities or projects. For this course, it is recommended that points be distributed as follows:

Coleman University Grade Assignment Policy:

Percent	Letter Grade	Grade Points
94-100	A	4
90-93	A-	3.67
87-89	B+	3.33
84-86	B	3
80-83	B-	2.67
77-79	C+	2.33
74-76	C	2
70-73	C-	1.67
67-69	D+	1.33
64-66	D	1
60-63	D-	0.67
N/A	INC	0
N/A	W	0
60 or above	CR	0
59 or below	NC	0
N/A	I	0
N/A	W	0
N/A	AU	0
N/A	TR	0
N/A	WV	0

Legend	
CR = Credit	NC = No Credit

I = Incomplete	W = Course Withdrawal
AU = Audit	TR = Transfer Credit
WV = Waiver	

Academic Accommodation / Adjustment Policy:

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), Coleman University offers accommodations to students with documented physical, psychological, and/or cognitive disabilities. Coleman University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to offer equal educational opportunities to qualified disabled individuals.

To qualify for an academic accommodation under ADA, the student must provide adequate documentation of a disability. Students seeking academic accommodations should contact the campus ADA Coordinator at 858-966-3953 or via email at ada@coleman.edu. The ADA Coordinator will review the documentation provided and verify ADA coverage. Students covered under ADA must meet with the ADA Coordinator at the beginning of every term to determine the appropriate academic accommodations. Failing to meet with the ADA Coordinator at the beginning of every term may impact the availability of accommodations.

After the academic accommodations have been determined, the students' instructors will be notified by the ADA Coordinator. If any problems or concerns regarding the provision of accommodations occur, the student must inform the ADA Coordinator. If the student feels accommodation is not being made appropriately, the student may follow the published Student Grievance Procedures.