

CptS 121: Fall, 2019

Program Design & Development - Schedule

WSU IT Help Desk Info: <http://cougtech.wsu.edu/>

Language References: [ANSI C Quick Reference](#) Library Guides: [C Library Guide](#) Coding Standards: [C Standard](#)

Free VCEA Tutoring (Dana 152): TBA
- CptS and EE tutors can help!

VCEA Learning Outside the Classroom (Career Fair, Internships, Resume Help, Interview Tips) - <https://vcea.wsu.edu/undergraduateexperience/>

- WSU Career Expo Info (Tuesday, October 1) - <https://ascc.wsu.edu/employers/career-expo/>
- ASCC Resume Info - <https://ascc.wsu.edu/career-services/resumes-and-cover-letters/>
- ASCC Interview Info - <https://s3.wp.wsu.edu/uploads/sites/167/2017/09/ASCC-Interviewing-Packet-2016.pdf>

Installing Windows on Linux and OSX: [.PDF](#)

How to Ignore scanf_s () and printf_s () Warnings in Microsoft Visual Studio: [.PDF](#)

Week	Class	Date	Reading	Topic	Assignments	Due Dates & Solutions
1	1	Aug 19	Ch. 0	Syllabus , intro to course, computers, & computer science; Bootcamp for Mac help , check out this article on the future of computing jobs: http://cacm.acm.org/blogs/blog-cacm/180053-computing-is-the-safe-stem-career-choice-today/fulltext	No lab this week!, Download MS VS Community 2019 from Microsoft, Download OSBLE+ plugin	
	2	Aug 21	Ch. 1	1-1: Intro to algorithms , problem solving, computer software, & the software development method	Register for an academic OSBLE+ account; request to join CptS 121	
	3	Aug 23	Ch. 2.1 - 2.4	Note: Last day you may add a course on-line! 1-2: C language elements , variables, data types, executable statements & program forms, in-class Hello World! [code] - note to run the Hello World program, you must first extract or unzip the files; please visit the IT help desk in CUE 302 if you're struggling w/ installing Visual Studio (however, you must show them that you made an earnest attempt to install it yourself!): http://cougtech.wsu.edu/ how to register for CptS 121 on OSBLE+: https://github.com/WSU-HELPLAB/OSBLE/wiki/Course-Search	PA 0 - submit Hello World class code through OSBLE+ plugin	
2	4	Aug 26	Ch. 2.5 - 2.8	2-1: Arithmetic expressions, formatting numbers, & common programming errors, ASCII table: http://www.asciitable.com/ , in-class incomplete compute average [code] helps w/ PA 1	Lab 1, Quiz 1 (take-home)	Lab 1
	5	Aug 28		Continue w/ L2-1 (Arithmetic expressions, formatting numbers, & common programming errors), in-class compute average [code] helps w/ PA 1	PA 1	
	6	Aug 30	Ch. 3.1 - 3.3	Note: Last day you may receive a refund for special course fees! 2-2: Functions I - building programs from existing functions, library functions, & top-down design w/ structure charts, in-class grade point average problem start pt [code], in-class grade point average problem end pt [code] w/o user defined functions, week 2 example [code] helps w/ PA 1!		
3	7	Sep 2		No Class - Labor Day - All University Holiday	Lab 2, Quiz 2 (take-home)	PA 0, Lab 2, Quiz 1 & Quiz 2 (by start of lab)
	8	Sep 4	Ch. 3.4 - 3.6	3-1: Functions II - functions, arguments, common programming errors, function call stack, & how to debug programs, incomplete GPA program [code] w/ get_gradepoint () function, more help with PA 1 [code]; check out this site (click on the link "Learn C"): http://www.tutorialspoint.com/ check out these C tutorials: http://www.mycplus.com/category/tutorials/c-programming-tutorials/		
	9	Sep 6		3-2: Basic file processing w/ functions, incomplete GPA program w/ functions [code], week 3 example [code] shows how to comment functions	PA 2	PA 1
4	10	Sep 9		4-1: More file processing, complete GPA program w/ 3-file format/organization [code]	Lab 3, Quiz 3 (take-home)	Lab 3, Quiz 3 (by start of lab)
	11	Sep 11	Ch. 4.1 - 4.4	Continue w/ L3-2, 4-1 (Basic file processing), 4-2: Selection structures I - control structures, conditions, & if statements, in-class incomplete letter grade [code] w/ fopen (), fscanf (), and fclose ()		
	12	Sep 13	Ch. 4.5 - 4.7	4-3: Selection structures II - problem solving w/ if statements & nested if statements, in-class incomplete letter grade program [code] w/ fprintf () and if statements, week 4 example [code]	PA 3	PA 2
5	13	Sep 16	Ch. 4.8, 4.9	Note: Last day you may drop a course without record (Tuesday, Sep 17)! 5-1: Selection structures III - switch statements & common programming errors, continuation of in-class letter grade [code]	Lab 4, No Quiz!	Lab 4, No Quiz!
	14	Sep 18		Exam 1 Review Session, PA 3 help [code] w/ find_min ()		
	15	Sep 20	HK 1 - 4.9	Exam 1 (Covers material from units 1-1 -- 5-1),		PA 3
6	16	Sep 23	Ch. 5.1 - 5.5	6-1: Loops I - repetition, while & for loops I, & loop patterns, in-class loop [code] w/ while and for loops	Lab 5, No Quiz!	Lab 5, No Quiz!
	17	Sep 25	Ch. 5.6 - 5.8	6-2: Loops II - do-while loops, & nested loops, in-class PA 4 starter [code]	PA 4	
				6-3: Loops III - applications w/ loops, PA 4 help [code], nested loops [code],		

	18	Sep 27	Ch. 5.9 - 5.12	week 6 example [code]		
7	19	Sep 30	Ch. 6.1 - 6.4	7-1: Pointers & modular programming I - pointers, indirection operator, output parameters, & scope of names, in-class pointers worked example on whiteboard! please consider solving problems found on the Project Euler website for more practice! - http://projecteuler.net/ also checkout: - http://www.khanacademy.org/cs - http://codingforinterviews.com/practice	Lab 6, Quiz 4 (take-home)	Lab 6, Quiz 4 (by start of lab)
	20	Oct 2	Ch. 6.5 - 6.8	7-2: Pointers & modular programming II - more pointers & pointer arithmetic, in-class pointers [code]		
	21	Oct 4		Continue w/ L7-2 (Pointers & modular programming II), in-class pointers [code]	PA 5	
8	22	Oct 7	Ch. 7.1 - 7.3	8-1: Arrays (Pointers) I - declaring arrays, subscripts, & loops w/ arrays, in-class array example [code] helps with PA 5	Lab 7, Quiz 5 (take-home)	PA 4, Lab 7, Quiz 5 (by start of lab)
	23	Oct 9	Ch. 7.4, 7.5	Note: Midterm grades will be posted! 8-2: Arrays (Pointers) II - arrays and functions, in-class array example w/ sequential search [code]		
	24	Oct 11	Ch. 7.6	8-3: Arrays (Pointers) III - searching and sorting arrays		
9	25	Oct 14	Ch. 7.7 - 7.11	9-1: Arrays IV (Pointers) - parallel & multidimensional arrays, in-class incomplete binary search [code], more PA 5 help [code]	Lab 8, Quiz 6 (take-home)	Lab 8, Quiz 6 (by start of lab)
	26	Oct 16	Ch. 8.1 - 8.4	9-2: Strings I - string basics, string library functions, complete binary search [code], more PA 5 help [code] provides function for counting dice, enumerated types [ppt]		
	27	Oct 18	Ch. 8.5 - 8.9	9-3: Strings II - character operations, arrays of pointers, string-to-number and number-to-string operations, & common errors, selection sort [code]; check out these logic problems: - http://www.folj.com/puzzles/	PA 6	
10	28	Oct 21		Continue w/ L9-3 (Strings II - character operations, arrays of pointers, string-to-number and number-to-string operations & common errors), PA 6 help [code], in-class strings [code] w/ strcpy ()	Lab 9, Quiz 7 (take-home)	Lab 9, Quiz 7 (by start of lab)
	29	Oct 23	Ch. 10.1, 10.2	10-1: Structures I - declaration of structs & input/output function arguments, in-class more with strings [code], more PA 6 help [code]		PA 5
	30	Oct 25	Ch. 10.3, 10.4	10-2: Structures II - problem solving w/ structs & functions w/ structures results (no PPT), more in-class strings [code], more PA 6 help [code]		
11	31	Oct 28	Ch. 10.5	11-1: Structures III - parallel arrays & arrays of structs, structs and Connect Four example [code]	Lab 10, No Quiz!	Lab 10, No Quiz!
	32	Oct 30		Exam 2 Review Session , more PA 6 help [code]		
	33	Nov 1	HK 5 - 8, 10.1 - 10.5	Exam 2 (Covers material from units 6-1 -- 11-1)		
12	34	Nov 4		Continue w/ L11-1 (Structures III), in-class Connect Four [code]	PA 7, Lab 11, No Quiz!	PA 6, Lab 11, No Quiz!
	35	Nov 6	Ch. 9.1 - 9.3	12-1: Recursion I - recursion basics & mathematical functions, in-class [code]; check out this website: - https://www.hackerrank.com/		
	36	Nov 8	Ch. 9.4 - 9.7	12-2: Recursion II - recursive functions w/ array/string parameters & problem solving w/ recursion, in-class recursion [code] w/ recursive factorial & fib, discuss more about function call stack, Connect Four [code] please send a complete solution to aofallon@eecs.wsu.edu by Friday, Dec 13 for bonus!		
13	37	Nov 11		No Class - Veteran's Day - All University Holiday	Lab 12, Quiz 8 (take-home)	Lab 12, Quiz 8 (by start of lab)
	38	Nov 13	Appendix C-3, C-4	13-1: Bit operations - binary numbers basics, conversions, & operators		
	39	Nov 15		Note: Last day you may withdraw from a course! Withdrawals do not reduce tuition charges! in-class bit operations [code] - shows <<, >>, &, , ^, ~, 13-2: Pointers, strings, and structs revisited again!	PA 8, Bonus assignment	PA 7
14	40	Nov 18	Ch. 13.1, 13.2	14-1: Dynamic data structures I - dynamic memory allocation, malloc () & free (), in-class start of list [code]	Lab 13, Quiz 9 (take-home)	Lab 13, Quiz 9 (by start of lab)
	41	Nov 20	Ch. 13.3	14-2: Dynamic data structures II - linked lists; we stepped through ideas on whiteboard		
	42	Nov 22	Ch. 13.4	14-3: Linked list operators, in-class list [code] w/ make_node () & insert_at_front (); remember to check out this site for more tips about programming interviews: - http://codingforinterviews.com/practice		
	43	Nov 25		No Class - Thanksgiving Vacation!		
	44	Nov 27		No Class - Thanksgiving Vacation!		
	45	Nov 29		No Class - Thanksgiving Vacation!		
15	46	Dec 2		Continue w/ L 14-3 (Linked list operators) w/ insert_at_front () & print_list () [code]	Lab Final!, No Quiz!	Lab Final!, No Quiz!
	47	Dec 4	Ch. 12.7	Continue w/ L 14-3 (Linked list operators), in-class linked list w/ delete_at front () & command line arguments [code] Please remember to fill out your course evaluations!		PA 8
	48	Dec 6	Ch. 12.8	15-1: Command line arguments - arguments to main (), Final Exam Review Session		Bonus Assignment - Strings (via email to aofallon@eecs.wsu.edu)
16	49		HK 1 - 10, 12.7, 12.8, 13.1 - 13.4	--Final Exam--NOTE: Must attend the time slot for the lecture section you are registered for! Lecture S1: TU, Dec 10, 1:00 - 3:00 pm in our normally scheduled classroom Lecture S2: TH, Dec 12, 3:10 - 5:10 pm in our normally scheduled classroom		Bonus Assignment - Connect Four (via email to aofallon@eecs.wsu.edu) by Friday, Dec 13

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