Planned Syllabus

This is what I plan to cover, and when. It will undoubtedly change as the quarter progresses. All readings are from the texts unless otherwise indicated. "*zy*" is the Programming in C zyBook, "*C Notes*" is the C Notes book. "*Shell*" is the shell text book. "§*n*" means chapter or section *n* of the named book. "[*n*]" means handout *n*. "*D*n" means discussion section *n*.

#	date	topic	readings
1.	Apr 2	Intro to UNIX/Linux, the CSIF, basic commands, first C program	*Shell*, §1–4; *zy*, §1; [1, 2, 3, 4]
2.	Apr 4	Second C program, introduction to debugging, variables, basic types, arithmetic operators	*zy*, §1, 2.1–2.8, 2.11–2.14, 2.16, 2.8, 2.20; [3–4]
D–.	*Disc sec*	*No discussion section this week*	
3.	Apr 9	True and false; relations, conditional statements; loops; *scanf*	*zy*, §2.20, 3.1–3.12, 3.16–3.19, 4.1–4.5, 4.9
4.	Apr 11	Functions, basic pointers	*zy*, §6.1–6.8
D1.	*Disc sec*	UNIX utilities: grep, sort, uniq, head, *etc*.	
5.	Apr 16	Pointers, arrays	*zy*, §5.12, 6.5–6.7
6.	Apr 18	C arrays and strings, chars as ints	*zy*, §6.5–6.9
D2.	*Disc sec*	UNIX utilities: shells, redirection, piping	*Shell*, §6, 7, 11, 13; [7]
7.	Apr 23	Output with *printf*, input with *scanf*, basic preprocessor macros	*zy*, §2.20, 6.16, 12.4
8.	Apr 25	Recursion basics	*zy*, §10.1–10.2, 10.5, 10.8
D3.	*Disc sec*	Strings, arrays, andcharacters	
9.	Apr 30	String functions, comma operator, command line arguments	*zy*, §10, 12.3, 8.5
10.	May 2	Review for Midterm	
D–.	*Disc sec*	*No discussion section this week*	
11.	May 7	***midterm*** (in class)	
12.	May 9	File input, output, manipulation	*zy*. §9.1, 9.4, 12.17, 12.19
D–.	*Disc sec*	*No discussion section this week*	
13.	May 14	Dynamic memory allocation	*zy*, §8.3, 8.6–8.7
14.	May 16	Linked lists, arrays of structures, *gdb* debugger	*zy*, §8.10–8.12; *C Notes*, §11
D4.	*Disc sec*	Review midterm answers	
15.	May 21	Function pointers, unions, scope of variables, more on *gdb*	*zy*, §6.14; *C Notes*, §24
16.	May 23	Binary notation, bits and bit operations	*C Notes*, §9
D5.	*Disc sec*	More about structures, binary trees	
17.	May 28	C and math library functions	
18.	May 30	Makefiles and multi-file programs	
D6.	*Disc sec*	Source code management systems	
19.	Jun 4	Managing large programs: structure and organization	
20.	Jun 6	*to be arranged*	
D7.	*Disc sec*	Review for final	
—.	Jun 12	***Final Exam, 10:30am–12:30pm***	

List of handouts on next page.

Handouts

1. Quick Guide to UNIX, *unix-quick.pdf*
2. *vim* Tutorial *vim.pdf*
3. Compiling and Executing Your Program, *compiling.pdf*
4. Writing a Program, *writingprogram.pdf*
5. Precedence and Associativity of C Operators, *associativity.pdf*
6. Pointer stew, *ptrstew.pdf*
7. Processes and the Shell, *processes.pdf*
8. The Dynamic Debugger *gdb*, *gdb.pdf*