Course map

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(Also note the official dates from the Registrar's office including add/drop dates and official holidays)

(All information subject to change)

Week	Lectures (~3 hours per week)	Lab (~1 hours per week)
1 - September 4 - 10	• Topic 0 - Course introduction • Topic 1 - Introduction to operating systems and Unix • Topic 2 - Introduction to C	
2 - September 11 - 17	• Topic 3 - Unix basics • Topic 4 - Unix editors • Topic 5 - C fundamentals	• Lab 01 ◦ login and logout department network ◦ using Unix to create a directory and two files
3 - September 18 - 24	• Topic 6 - Formatted IO • Topic 7 - Files and directories	• Lab 02 ◦ use tar command to manipulate archives ◦ use sftp to transfer files ◦ create a small C program and compile
4 - September 25 - October 1	• Topic 8 - Flow control in C (Selection statements and loops) • Topic 9 - File security and permissions • Topic 10 - Data types in C and Binary representation in computers	• Lab 03 ◦ Flow control in C
5 - October 2 - 8	• Topic 11 - Memory maps in C (Arrays) • Topic 12 - Function calls in C	• Lab 04 ◦ create new files and directories in Unix ◦ change their permission levels
6 - October 9 - 15	• Topic 13 - Pointers in C	• Lab 05 ◦ Small programs in C that work with different data types
7 - October 16 - 22	• Topic 14 - Unix command I/O and redirection • Topic 15 - Processes and job control	• Lab 06 ◦ Arrays in C ◦ Functions in C
8 - October 23 - 29	• Topic 16 - Regular expressions • Topic 17 - Strings in C	• Lab 07 ◦ Exercise with the grep command
9 - October 30 - November 5 (Reading Week)		
10 - November 6 - 12	• Topic 18 - Variables (scope) in C (Program organization) • Topic 19 - Debugging	• Lab 08 ◦ gdb
11 - November 13 - 19	• Topic 20 - Structure types in C • Topic 21 - The Preprocessor • Topic 22 - Writing large programs	• Lab 09 ◦ Working with the String library
12 - November 20 - 26	• Topic 23 - Shell environments • Topic 24 - Shell programming • Topic 25 - Memory allocation (Advanced uses of pointers) • Topic 26 - Linked lists and other advanced uses of pointers	• Lab 10 ◦ Shell programming
13 - November 27 - December 3	• Topic 27 - Declarations • Topic 28 - Compiler directives in C • Topic 29 - Low Level programming	• Lab 11 ◦ Practice with command I/O, redirection, job control, etc

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14 - December 4 - 10	• Topic 30 - The Standard Library • Topic 31 - Interacting with Unix files in C (Input/Output)	• Lab 12 ◦ Amend code to read and write to an external file in C
Exam period		