

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	<ul style="list-style-type: none">Topic 0 - Course introductionTopic 1 - Introduction to operating systems and UnixTopic 2 - Introduction to C		
2 - September 11 - 17	<ul style="list-style-type: none">Topic 3 - Unix basicsTopic 4 - Unix editorsTopic 5 - C fundamentals	<ul style="list-style-type: none">Lab 01<ul style="list-style-type: none">login and logout department networkusing Unix to create a directory and two files	<ul style="list-style-type: none">• /• /
3 - September 18 - 24	<ul style="list-style-type: none">Topic 6 - Formatted IOTopic 7 - Files and directories	<ul style="list-style-type: none">Lab 02<ul style="list-style-type: none">use tar command to manipulate archivesuse sftp to transfer filescreate a small C program and compile	
4 - September 25 - October 1	<ul style="list-style-type: none">Topic 8 - Flow control in C (Selection statements and loops)Topic 9 - File security and permissionsTopic 10 - Data types in C and Binary representation in computers	<ul style="list-style-type: none">•Lab 03<ul style="list-style-type: none">Flow control in C	<ul style="list-style-type: none">• /• /• /
5 - October 2 - 8	<ul style="list-style-type: none">Topic 11 - Memory maps in C (Arrays)Topic 12 - Function calls in C	<ul style="list-style-type: none">Lab 04<ul style="list-style-type: none">create new files and directories in Unixchange their permission levels	
6 - October 9 - 15	<ul style="list-style-type: none">Topic 13 - Pointers in C	<ul style="list-style-type: none">Lab 05<ul style="list-style-type: none">Small programs in C that work with different data types	<ul style="list-style-type: none">• /• /• /
7 - October 16 - 22	<ul style="list-style-type: none">Topic 14 - Unix command I/O and redirectionTopic 15 - Processes and job control	<ul style="list-style-type: none">Lab 06<ul style="list-style-type: none">Arrays in CFunctions in C	
8 - October 23 - 29	<ul style="list-style-type: none">Topic 16 - Regular expressionsTopic 17 - Strings in C	<ul style="list-style-type: none">Lab 07<ul style="list-style-type: none">Exercise with the grep command	<ul style="list-style-type: none">• /• /• /
9 - October 30 - November 5 (Reading Week)			
10 - November 6 - 12	<ul style="list-style-type: none">Topic 18 - Variables (scope) in C (Program organization)Topic 19 - Debugging	<ul style="list-style-type: none">Lab 08<ul style="list-style-type: none">gdb	
11 - November 13 - 19	<ul style="list-style-type: none">Topic 20 - Structure types in CTopic 21 - The PreprocessorTopic 22 - Writing large programs	<ul style="list-style-type: none">Lab 09<ul style="list-style-type: none">Working with the String library	<ul style="list-style-type: none">• /• /• /
12 - November 20 - 26	<ul style="list-style-type: none">Topic 23 - Shell environmentsTopic 24 - Shell programmingTopic 25 - Memory allocation (Advanced uses of pointers)Topic 26 - Linked lists and other advanced uses of pointers	<ul style="list-style-type: none">Lab 10<ul style="list-style-type: none">Shell programming	
13 - November 27 - December 3	<ul style="list-style-type: none">Topic 27 - DeclarationsTopic 28 - Compiler directives in CTopic 29 - Low Level programming	<ul style="list-style-type: none">Lab 11<ul style="list-style-type: none">Practice with command I/O, redirection, job control, etc	<ul style="list-style-type: none">• /

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