

## Tentative Syllabus

Because I teach to the students, and not to the syllabus, these dates and topics are tentative and subject to change without warning. In particular, if I don't discuss something you're interested in, ask about it! I may very well add it or modify what I'm covering to include it.

The discussion sections will present material on systems programming ("SP—" precedes the topic in these) or some particular aspects of the FreeBSD operating system. The discussion section topics are tentative and subject to change as we see fit. Regardless of the topic listed, all discussion sections have a few ground rules:

- If you don't understand something in lecture, or are having problems with the assignments, please ask the instructor. The primary goal of a discussion section is to discuss points that are confusing you, and the instructors have standing instructions to clear up any confusion even if some material is not covered.
- You are responsible for material covered in discussion section. That material may be on assignments and exams.

	Date	Topic	Reading
1.	Mon, Mar 31	Brief history of operating systems	§1
2.	Wed, Apr 2	Operating systems functions	§2
	Wed, Apr 2	<i>Discussion Section: SP—introduction</i>	
3.	Fri, Apr 4	Kernel architecture and management	§3
4.	Mon, Apr 7	Basics of processes	§4.1–4.3, 4.5, 4.6
5.	Wed, Apr 9	Parallelism and Concurrency	§4.3–4.4
	Wed, Apr 9	<i>Discussion Section: SP—files, directories</i>	
6.	Fri, Apr 11	Solutions to the critical section problem I	
7.	Mon, Apr 14	Solutions to the critical section problem II	
8.	Wed, Apr 16	Interprocess communication constructs	§4.7, 11
	Wed, Apr 16	<i>Discussion Section: SP—process control</i>	
9.	Fri, Apr 18	Process scheduling	§4.4
10.	Mon, Apr 21	Memory management basics	§5
11.	Wed, Apr 23	Memory management policies I	§5
	Wed, Apr 23	<i>Discussion Section: FreeBSD memory management</i>	§5
12.	Fri, Apr 25	Memory management policies II	§5
13.	Mon, Apr 28	I/O basics, devices	§6.1–6.3, 7, 10
14.	Wed, Apr 30	Process I/O, I/O scheduling	§6.4–6.7
	Wed, Apr 30	<i>Discussion Section: Review for midterm</i>	
15.	Fri, May 2	<b><i>Midterm exam</i></b>	
16.	Mon, May 5	File system organization	§8
17.	Wed, May 7	File system implementation	§8
	Wed, May 7	<i>Discussion Section: SP—I/O</i>	
18.	Fri, May 9	Network-based file systems	§9

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	<b>Date</b>	<b>Topic</b>	<b>Reading</b>
19.	Mon, May 12	to be arranged	
20.	Wed, May 14	Deadlock: principles, models	
	Wed, May 14	<i>Discussion Section: SP—IPC</i>	
21.	Fri, May 16	Deadlock: practice	
22.	Mon, May 19	Security basics	
23.	Wed, May 21	Security mechanisms I	
	Wed, May 21	<i>Discussion Section: SP—security</i>	
24.	Fri, May 23	Security mechanisms II	
	Mon, May 26	<i>No class (Memorial Day)</i>	
25.	Wed, May 28	Networks and operating systems I	§12
	Wed, May 28	<i>Discussion Section: SP—networks and processes</i>	
26.	Fri, May 30	Networks and operating systems II	§12, 13
27.	Mon, Jun 2	Networks and operating systems III	§13
28.	Wed, Jun 4	to be arranged	
	Wed, Jun 4	<i>Discussion Section: Review for final</i>	
	Mon, Jun 9	<b><i>Final exam</i></b>	

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