Summary of OS Topics*

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This is a short list of topics I think we covered in the first half of our operating systems course. Please let me know if I omitted anything. Also, the listed dates may more closely reflect the date I wrote my lecture notes than the date we discussed the material.

date	topics	reading
26 Aug	introduction to OSs; two brief histories of OSs	ch. 1
31 Aug	introduction to processes; shells; scheduling algorithms and their design criteria	§2.0–2.1, 2.4
02 Sep	specific scheduling algorithms; UNIX 4.3BSD algorithm	§2.4
07–09 Sep	introduction to interprocess communication, race conditions, mutual exclusion, criteria for reasonable solutions, Peterson's solution; semaphores	§2.2
14 Sep	producer-consumer problem; brief mention of monitors	§2.2
16 Sep	dining philosophers problem	§2.3
21 Sep	threads and their implementations	§12.1
23 Sep	signals and their movement through the computer and OS	
23 Sep	implementation of system calls	4.3BSD handout
28 Sep	system calls, hardware interrupts, hardware traps and their implementations	4.3BSD handout
30 Sep	"bottom half of kernels"; five goals of virtual memory; relocation and protection	handout, §§3.0–3.1
05 Oct	paging, page tables, associative stores	§3.3
07 Oct	more paging; segmentation	§3.7
12 Oct	segmentation with paging; page replacement algorithms	§§3.4–3.6 (portions), 3.7

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