BILKENT UNIVERSITY
DEPARTMENT OF COMPUTER ENGINEERING
CS342 OPERATING SYSTEMS

CS342 OPERATING SYSTEMS

Dr. İbrahim Körpeoğlu
http://www.cs.bilkent.edu.tr/~korpe

About the Course

- Will teach operating systems
  - Concepts and components
- Will include projects and programming homeworks
  - Hands-on approach
- Examples from a real operating system
  - Linux
- Will involve lots of programming
  - using C language.

About the Course: sections

There are 3 sections

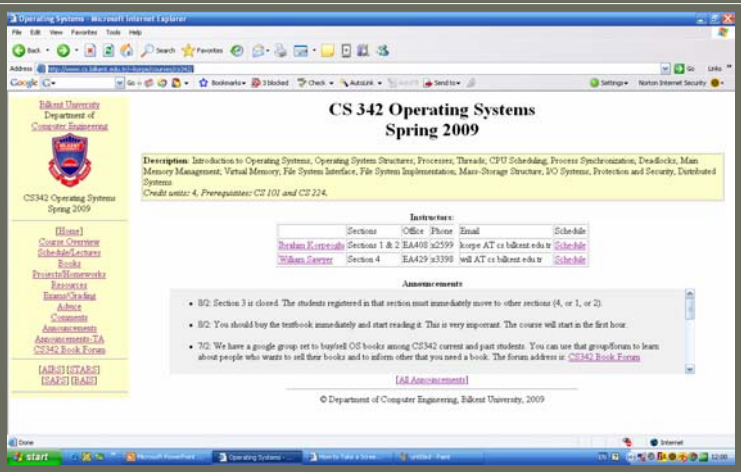
Instructors

	Sections	Office	Phone
Ibrahim Korpeoglu	Sections 1 & 2	EA408	x2599
William Sawyer	Section 4	EA429	x3398

About the Course: weekly schedule

	Mon	Tue	Wed	Thr	Fri
08:40					
09:40					
10:40					
11:40					
12:40					
13:40		Section 1 BZ03 (IK)		Section 2 EB203 (IK)	Section 4 EB203 (WS)
14:40		Section 1 BZ03 (IK)		Section 2 EB203 (IK)	Section 4 EB203 (WS)
15:40	Section 2 EB203 (IK)	Section 4 EB203 (WS)		Section 1 BZ03 (IK)	
16:40	Section 2 EB203 (IK)	Section 4 EB203 (WS)		Section 1 BZ03 (IK)	

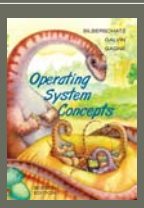
About the Course: website



Visit regularly

About the Course: textbook

- Mandatory Textbook:
  - Operating System Concepts (7th Edition) by Abraham Silberschatz, Peter Baer Galvin, Greg Gagne
  - Everybody should have and read



- Supplementary Textbook: Operating System Concepts (8th Edition) by Abraham Silberschatz, Peter Baer Galvin, Greg Gagne
  - Next year it will be mandatory

- Book Buy Forum: http://groups.google.com/group/cs342forum09

About the Course: textbook

- Recommended Textbook: Modern Operating Systems (3rd Edition) by Andrew S. Tanenbaum
  - Some content may be included from this book.

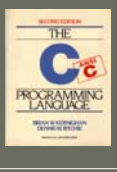
About the Course: tentative plan

Web site will be more up-to-date

W#	Date	Topic
1	Feb 09	Introduction; Operating System Structures
2	Feb 16	Processes and Threads
3	Feb 23	Processes and Threads
4	Mar 2	CPU Scheduling
5	Mar 9	Synchronization
6	Mar 16	Synchronization; Deadlocks
7	Mar 23	Deadlocks; Main Memory
8	Mar 31	Virtual Memory
9	Apr 06	File Systems
10	Apr 13	File Systems; Mass Storage Structure
11	Apr 20	Mass Storage Structure
12	Apr 27	Input/Output
13	May 04	Protection
14	May 11	Distributed Systems

About the course: projects

- There will be 5-6 projects
- Will involve low level programming in Linux environment
  - Some kernel level projects
- Will use automated tools for testing
- C programming language
  - Please start refreshing your C/C++ knowledge
  - We highly recommend you to read the following book: The C Programming Language by Brian W. Kernighan and Dennis M. Ritchie, Prentice Hall PTR, 1998 (must have book for serious C programmers).



About the course: projects

- You need to install Linux on your desktop/laptop
- We suggest Ubuntu version 8.10
- Website will give some links

- It is important that everybody can program in C and in Linux
- You need to perform above a threshold in the projects to pass the course

Other issues

- Ask questions
- Attendance is important
- Use the forum
- Help each other to debug programs
- Be persistent in debugging

Instructor: ibrahim Korpeoglu

- Detailed information on web: http://www.cs.bilkent.edu.tr/~korpe
- Assistant Professor in
  - Bilkent University, Dept of Computer Engineering
- B.S. degree from
  - Bilkent University, Dept of Computer Engineering
- M.S. and Ph.D. degrees from
  - University of Maryland, College Park, Dept of Computer Science
    Thesis on Mobile and Wireless Networking
- Industry Experience in
  - Ericsson, CA
  - IBM T.J. Watson Research Center, NY
  - Bell Labs, NJ
  - Telcordia Technologies (formerly Bellcore), NJ

  (worked on Networking Systems, Protocols, and Algorithms)

Instructor: ibrahim Korpeoglu

- Teaching
  - Operating Systems, Wireless Networking Courses (current)
  - Data Structures, Digital Design, Networking Programming (past)
- Research
  - Computer Networks
  - Wireless and Mobile Networks
  - Sensor Networks
  - Mesh Networks
  - Peer-to-Peer Networks
  - WiFi, WiMAX, Bluetooth, ZigBee Wireless Technologies
  - Distributed Systems, Algorithms and Protocols

Lecture Format

- Start at hour:40; please be on time
- 45 minutes lecture (you can ask questions at any time
- Last 5 minutes for again questions and finish

  - Break (10 minutes); you can get coffee/tea

- Next lecture