CS550 –Operating Systems Course Overview

Instructor: Kartik Gopalan

Class website:
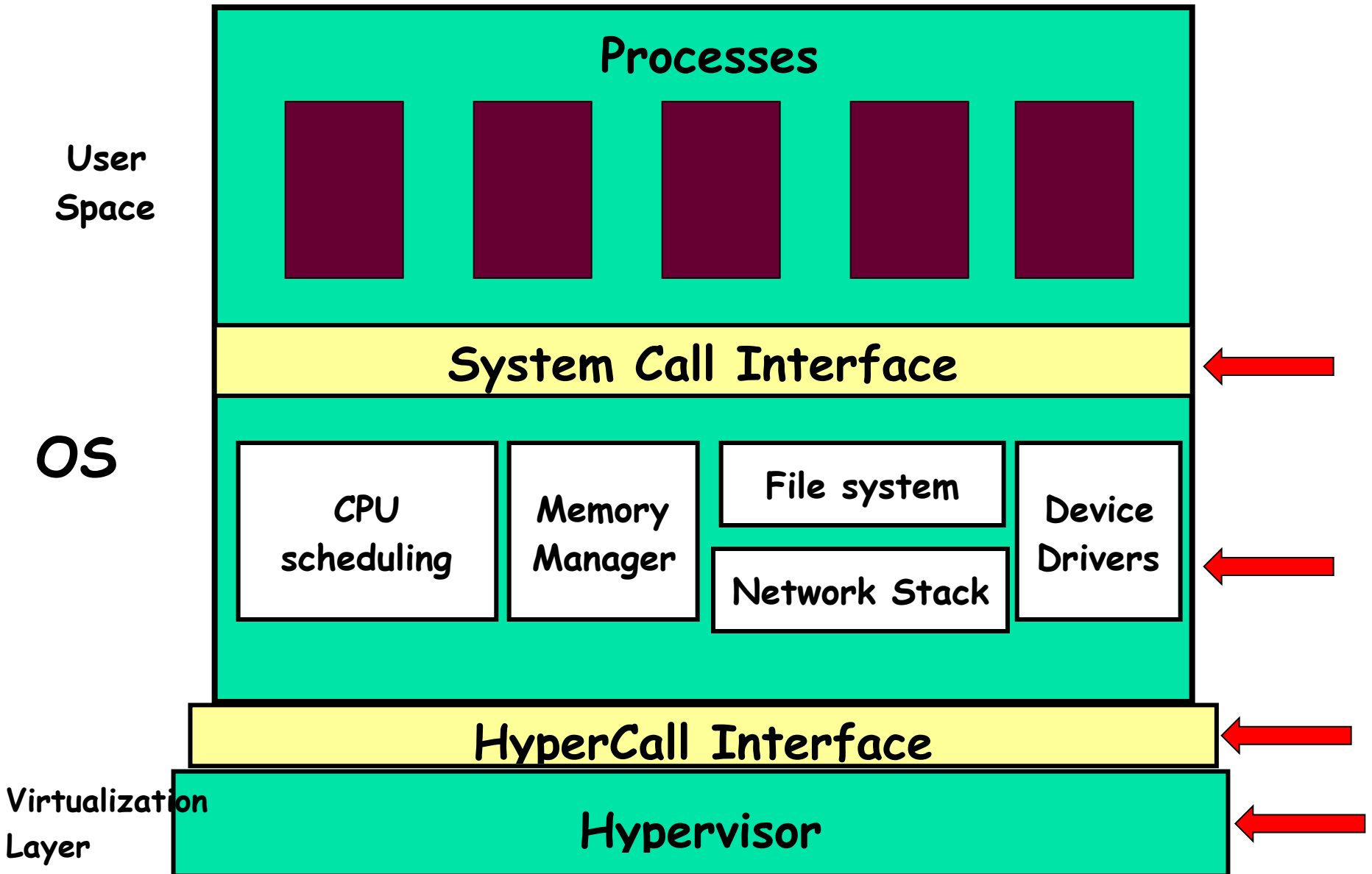http://www.cs.binghamton.edu/~kartik/cs550/

Interfaces in a Computer System
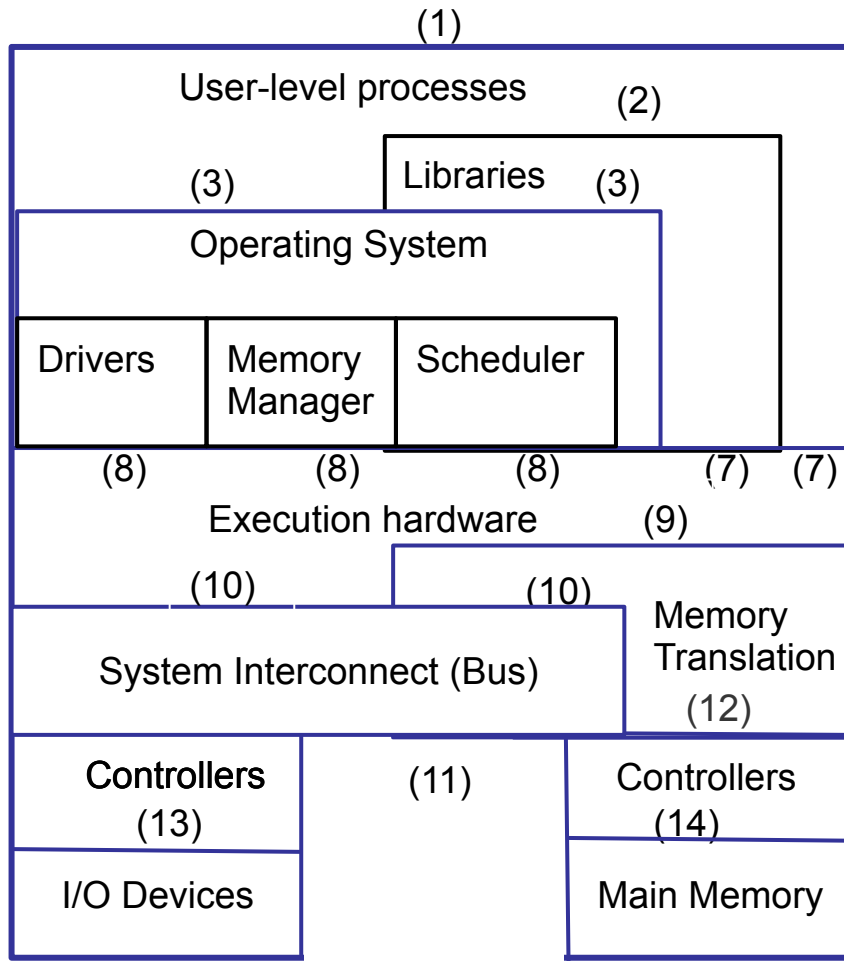
User ISA : 7
System ISA : 8
Syscalls : 3
ABI : 3, 7
API : 2,7

ISA = Instruction Set Architecture
ABI = Application Binary Interface
API = Application Programming
        Interface

Layers of Software

Processes

User
Space

System Call Interface ←

OS

CPU
scheduling

Memory
Manager

File system

Network Stack

Device
Drivers ←

HyperCall Interface ←

Virtualization
Layer

Hypervisor ←

Coverage of Topics

- Concurrency
- Memory Management
- CPU Scheduling
- File Systems
- Input/Output
- Virtualization
- Security
- Basics of Programming in the Linux Kernel
- Other topics as appropriate

Class Logistics

- Class website
  - http://www.cs.binghamton.edu/~kartik/cs550

- Course Material
  - Lecture slides and papers posted on the class website
  - Andrew Tanenbaum, Modern Operating Systems, 3rd or 4th edition

- Read the course policies.

- Website will also have office hours, test dates, assignments, test samples etc.

Accounts you need

- BU Email account
  - <yourid>@binghamton.edu
  - For communicating with me and TA
  - For receiving announcements

- CS LDAP Account
  - to log into machines in G-7 and Q-22

- "Network Boot" image in the G-7 instructional lab
  - Your own Linux kernel that you will work with.
  - Explained during Lab

- Access to blackboard
  - For submitting your assignments
  - Getting grades
  - http://blackboard.binghamton.edu

Students with disabilities

- Please contact me within first two weeks of class.

- Please contact the SSD office for any accommodations.
  - Bring me their letter.

- Don't hesitate to tell me if some aspect of the class is not working for you.
 - We will promptly work with you and SSD to fix it.

To ask or not to ask?

- Instructor and TAs are not a psychics!
  - If you don't ask, then we won't know how to help.

- Please let us know if…
  - You are lost
  - You don't understand something
  - You don't have the background
  - Class can be improved in certain ways

- Feel free to give anonymous feedback online
  - Especially in the middle of the semester
  - Though direct feedback is always welcome.

- Ask for help early
  - Don't wait till the last minute
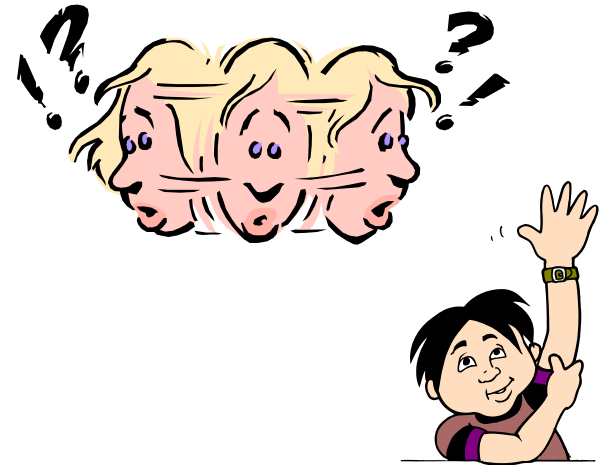
Asking Questions

- Make Google your friend!
  - Can't beat the response time!

- Email me/TAs anytime

- Stop by during office hours

- Any other time
  - Please email me for an appointment.
  - Otherwise, you may not find me, or you may find me busy with something else.
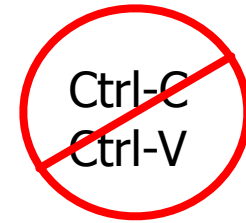
Kidding…No question is dumb!
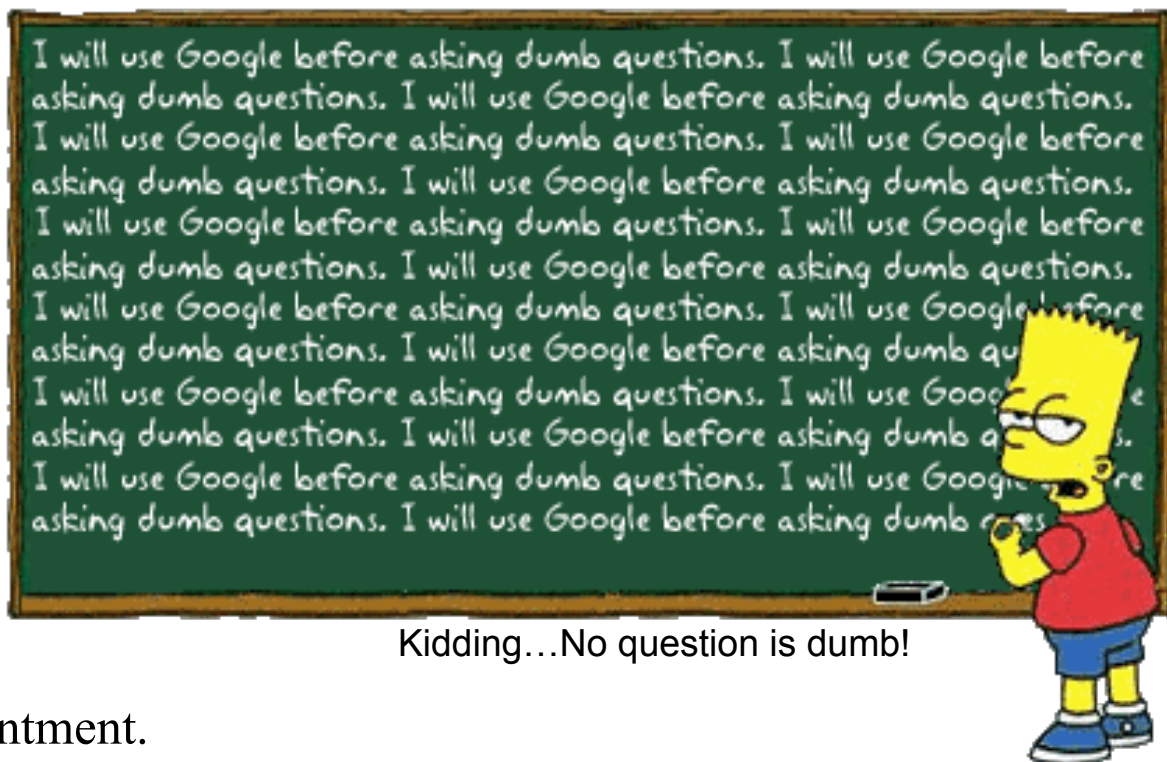
Stressed?

- Keep the perspective
  - This is only one little course in the scheme of "things".

- If you are overwhelmed with the course, talk to us.

- If you are depressed or panicking.
  - Seek professional counseling.
  - http://counseling.binghamton.edu/
  - Hope you won't need to ☺

Academic Integrity

·Means

- Do your own work. Don't do others' work.
- Don't ask/give solutions, including code.
- Don't get code from the Internet.
- Protect your code
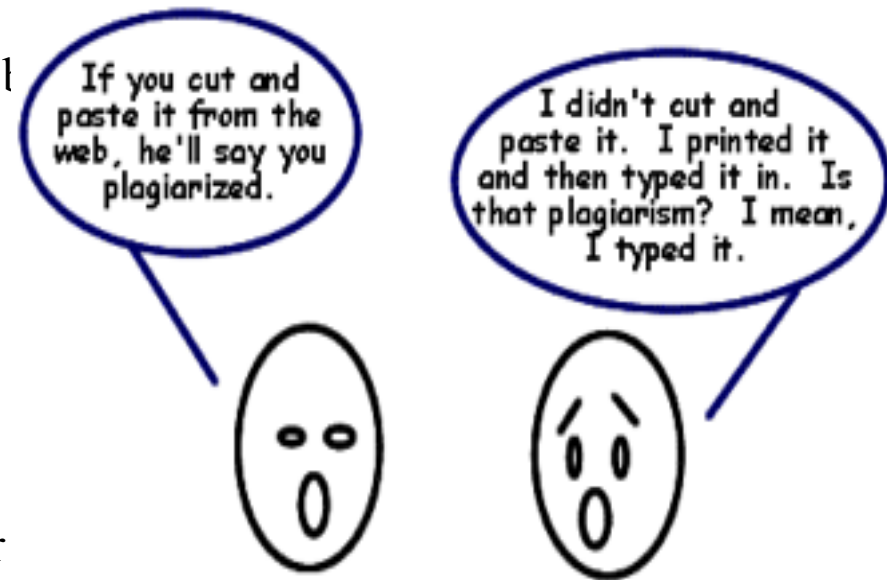
·Moss: A tool for detecting software plagiarism will l

·Please read the policies on course web page

·Dishonesty ➔

- You can get an F grade
- Be referred to the Dean's office

·Its better to submit an imperfect assignment of your one.

·You can get partial grades for incomplete work.
·But you'll get F for copied work.

If you cut and paste it from the web, he'll say you plagiarized.

I didn't cut and paste it. I printed it and then typed it in. Is that plagiarism? I mean, I typed it.

http://library.kcc.hawaii.edu/main/instruction_info/

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Missed Exams/Assignments

- No makeup exams/assignments.

- Except for medical emergencies or jury duty when accompanied with valid documentation.

- Plan your other commitments (travel,interviews etc) around deadlines.

Questions?