Topic: Welcome, Intro, Review

Approach: Outline, Dissect

Main Ideas:

Course goals
Course structure
Required preparation
C ideas
What is systems programming?
User level Unix
System Services

Outline:

What Will I Learn? Some Examples:
- Calculator (bc)
  - what it does, how it does it
- Internet Bridge - multi-player game
  - what it does, how it does it
- Web Browser/Servers
  - what it does, how it does it

In common: several components that
communicate, coordinate, cooperate.
What are the basic elements of these systems

How the Course Works
- Classes, Sections, email, piazza, Assignments, Exams
- Week 1: Get your account, do hw0 and proj0

The Role of an Operating System: Connections and Services
- Manage use and access to resources
- Creates an illusion of a dedicated machine

Unix from the User Perspective
- Login, Run programs, Logout
- Storage: files, directories
- File Operations: view, copy, delete, rename
- Connecting programs to data: <, >
- Combining Programs: pipes |

Studying and Writing Our Own Versions of System Programs
- more
  - file i/o
  - terminal i/o
  - process management
  - video control

Conclusions:

Naive picture of C programs
More complete picture of C programs
What is system programming
What is kernel programming