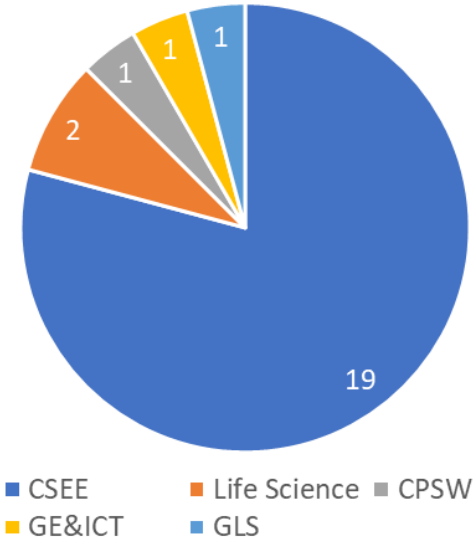
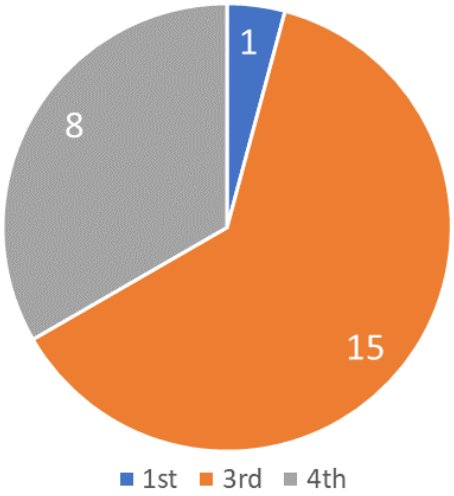
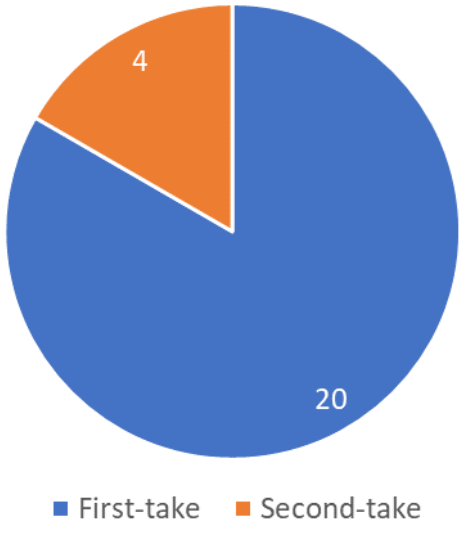
ITP30002 Operating System

Course Overview

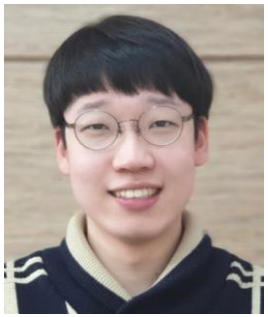
Class: ITP 30002-01







- 24 students of ITP30002-01 (c.f. 50 students of ITP30002-02)
- Instructor: Shin Hong hongshin@handong.edu
- Teaching assistants



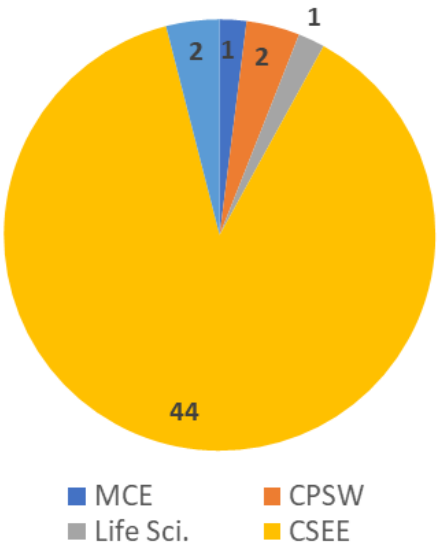
Jeewoong Kim

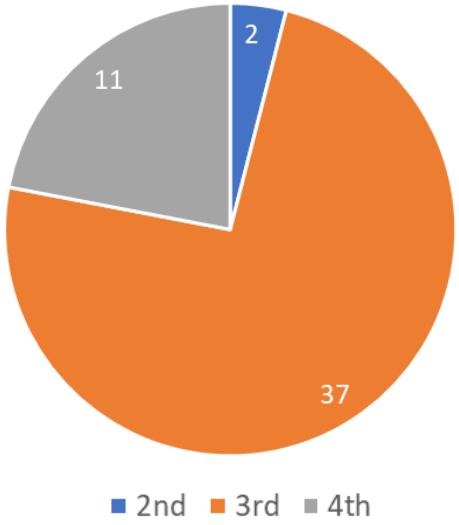
Juyoung Jeon

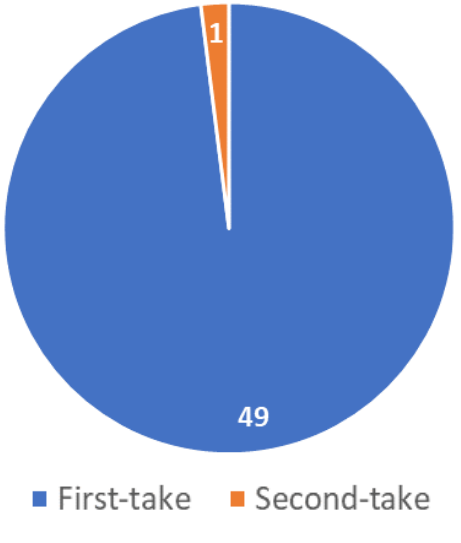
Hyerin Leem

Hanyoung Yoo

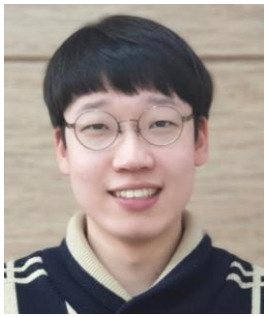
Class: ITP30002-02







- 50 students of ITP30002-02 (c.f. 24 students of ITP30002-01)
- Instructor: Shin Hong hongshin@handong.edu
- Teaching assistants



Jeewoong Kim

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Course Objectives

- To have an overview of the designs and implementations of contemporary operating systems
- To understand the principles and challenges in designing operating systems
- To provide essential background on the Linux system programming

Course Webpage

https://github.com/hongshin/OperatingSystem

- Class logistics and policies
- Activities: meetings, tests, programming assignments
- Learning materials

Topics and Schedule (Tentative)

Date	Topic
Mar 3 Mar 6	Course introduction
Mar 10 Mar 13	Ch. 1. Introduction
Mar 17 Mar 20	Ch. 2. System structure
Mar 24 Mar 27	Ch. 3. Process concepts
Mar 31 Apr 3	Ch. 4. Multithreading * Programming assignment 1
Apr 7 Apr 10	Ch. 5. Process scheduling
Apr 14 Apr 17	Ch. 6. Synchronization
Apr 21 Apr 24	** midterm exam

Date	Topic
Apr 28 May 1	Ch. 7. Deadlock * Programming assignment 2
May 5 May 8	Ch. 8. Memory management
May 12 May 15	Ch. 8. Memory management
May 19 May 22	Ch. 9. Virtual memory * Programming assignment 3
May 26 May 29	Ch. 10. File system
June 2 June 5	Ch. 10. File system
June 9 June 12	Ch. 11. Implementing file system * Programming assignment 4
June 16 June 19	** final exam (TBD)

Grading

- Proportion in final score
  - Attendance: 4%
    - fail if you miss more than a quarter of the meetings (i.e., >7 times)
  - Discussion: 6% (+3%)
  - Midterm exam: 25%
  - Final exam: 30%
  - Programming assignments: 25%
  - Homework: 5-10%

- Grading proportion

  (A : B : C+D+F) = (15-30% : 30-60% : 15-30%)

Programming Assignments

- There will be 3 to 4 programming assignments (PA)
- Each PA will be given as a team work of 2 or 3 persons
- Each PA is to practice and exercise Linux system programming
  - You will be asked to use the Peace server in doing assignments
  - It is expected that a student can use Linux to write C programming by himself/herself

Ground Rules

- The primary way of studying operating system is reading textbooks and working on assignments and homework
  - Class meetings are primary for discussion of the instructor and students
- Students are expected to put at least 6 hours per week to self-study to follow-up 3 hours meeting
  - 6 hours independent from the time for meetings, assignments and homework
- Figuraing out the obligations of an assignment is a crucial part of it
- Each student must cover all parts of programming assignment results
  - each member may take a part, and must study all parts of the submitted results

Policies

https://github.com/hongshin/OperatingSystem/blob/master/README.md

- Communication
- Checking meeting attendance
- Failure

Study Guideline

- Read, read and read textbook
  - read regularly
  - never move on once you find a unknown word/sentence
  - use your hands to repeat examples
  - memorize definitions
  - peruse stories in boxes
  - never expect that all materials will be covered at meetings
- Solve exercise problems by yourself
  - read problem descriptions carefully
  - write down an answer completely, and never stop at a middle
  - study with your colleagues
- Try best to think together (i.e., discuss) at meetings
  - participate in discussion, or lose your time