

ITP 30002-01 Operating System

Course Introduction

Shin Hong

In this class

- greet each other
- check various class set-up
- overview the semester plan

ITP 30002-01 Class Members – Lectures & TAs

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- Lecturer: Shin Hong
 - OH 313
 - <https://hongshin.github.io>
 - hongshin@handong.edu
- Teaching assistants
 - : Hanyoung Yoo, Dong In Kang and Joo Won Park
- Zoomer
 - : TBD (now hiring)

Class Objectives

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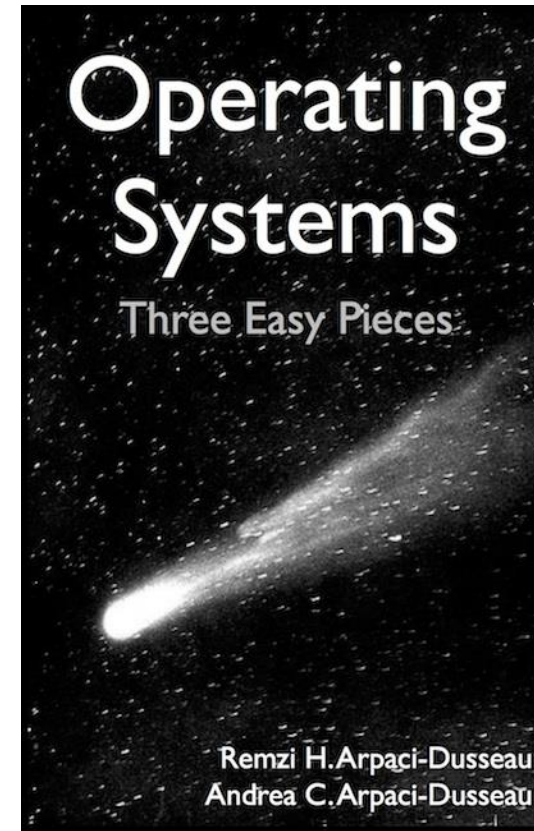
- Understand the key concepts and design principles of operating systems
- Have an overview of designs and implementations of contemporary operating systems
- Have essential experiences of system programming with Linux

Learning Materials

- Operating Systems: Three Easy Pieces
 - R. H. Arpaci-Dusseau and A. C. Arpaci-Dusseau
 - <http://pages.cs.wisc.edu/~remzi/OSTEP/>
 - lecture notes will be shared via the class github

- Secondary materials

- lecture notes of the previous ITP 30002 classes
<https://github.com/hongshin/OperatingSystem/tree/2020spring/notes>
- Beginner's guide to system programming
<https://sites.google.com/handong.edu/system-programming/home>
- xv6: a simple, Unix-like teaching operating system, revision 8
<https://pdos.csail.mit.edu/6.828/2014/xv6/book-rev8.pdf>



Semester Plan

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Week	Textbook coverage
1	Overview: Chapters 1 and 2 (18 pages)
2	Process: Chapters 3, 4 and 5 (23 pages)
3	Process: Chapters 6, 7 and 8 (38 pages)
4	Process: Chapters 9 and 11 (11 pages)
5	Memory: Chapters 13--16 (34 pages)
6	Memory: Chapters 17--19 (42 pages)
7	Memory: Chapters 20 and 21 (20 pages)
8	** midterm **

Week	Textbook coverage
9	Memory: Chapters 22 and 23 (31 pages)
10	Concurrency: Chapters 26 and 27 (20 pages)
11	Concurrency: Chapters 28--30 (45 pages)
12	Concurrency: Chapters 31 and 32 (27 pages)
13	File system: Chapters 35, 36 and 37 (28 pages)
14	File system: Chapters 38 and 39 (38 pages)
15	File system: Chapters 40 and 41 (27 pages)
16	** final exam **

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Class Meetings

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- conducted as **distributed** classes
 - onsite-online dual operation by default
 - onsite
 - ITP 30002-01: NTH 412 (up to 40 persons)
 - ITP 30002-02: OH 305 (up to 40 persons)
 - online: <https://handong.zoom.us/my/hongshin>
 - starts 5 min later than the scheduled time due to machine setup
 - zoomer is staying onsite to work as an agent for online people
- check attendance at the beginning of each class
 - be prepared to answer when your name is called



Communication Channel

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- Slack _invitation link: <http://takeme.kr/@hongshin-slack>
 - timely notice
 - in-class interaction
 - Q&A
 - administrative request
 - personal message
- Github <http://github.com/hongshin/OperatingSystem>
 - study materials (lecture note, homework assignment, etc.)
- Hisnet
 - homework submission & attendance record

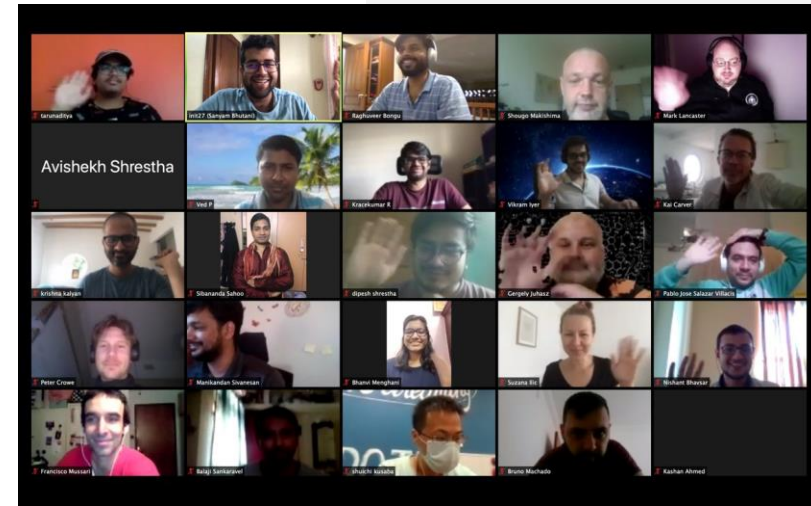
Homework

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- 4 to 6 assignments throughout the semester
 - type of assignments
 - system programming
 - exercise problem solving
 - essay writing
 - given as a personal work (not a teamwork)

Reading Group

- consists of 4 or 5 random students
- must have a meeting and submit a report on a weekly basis
 - a meeting should be at least 30 min
 - a report summarizes the discussions and the questions in the meeting
 - meeting reports will be opened and shared in all class members
 - a reading group will be evaluated based on their submitted meeting reports
 - a meeting report must be submitted by 6 PM every Monday
- will be rearranged twice (i.e., three terms) in this semester
 - peer evaluation will follow immediately after rearrangement



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Proportion of Evaluation

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- Exam: 40%
 - 2 or 3 times
- Homework: 40%
- Reading group: 10%
- Class contribution: 10%
 - attendance
 - in-class discussion

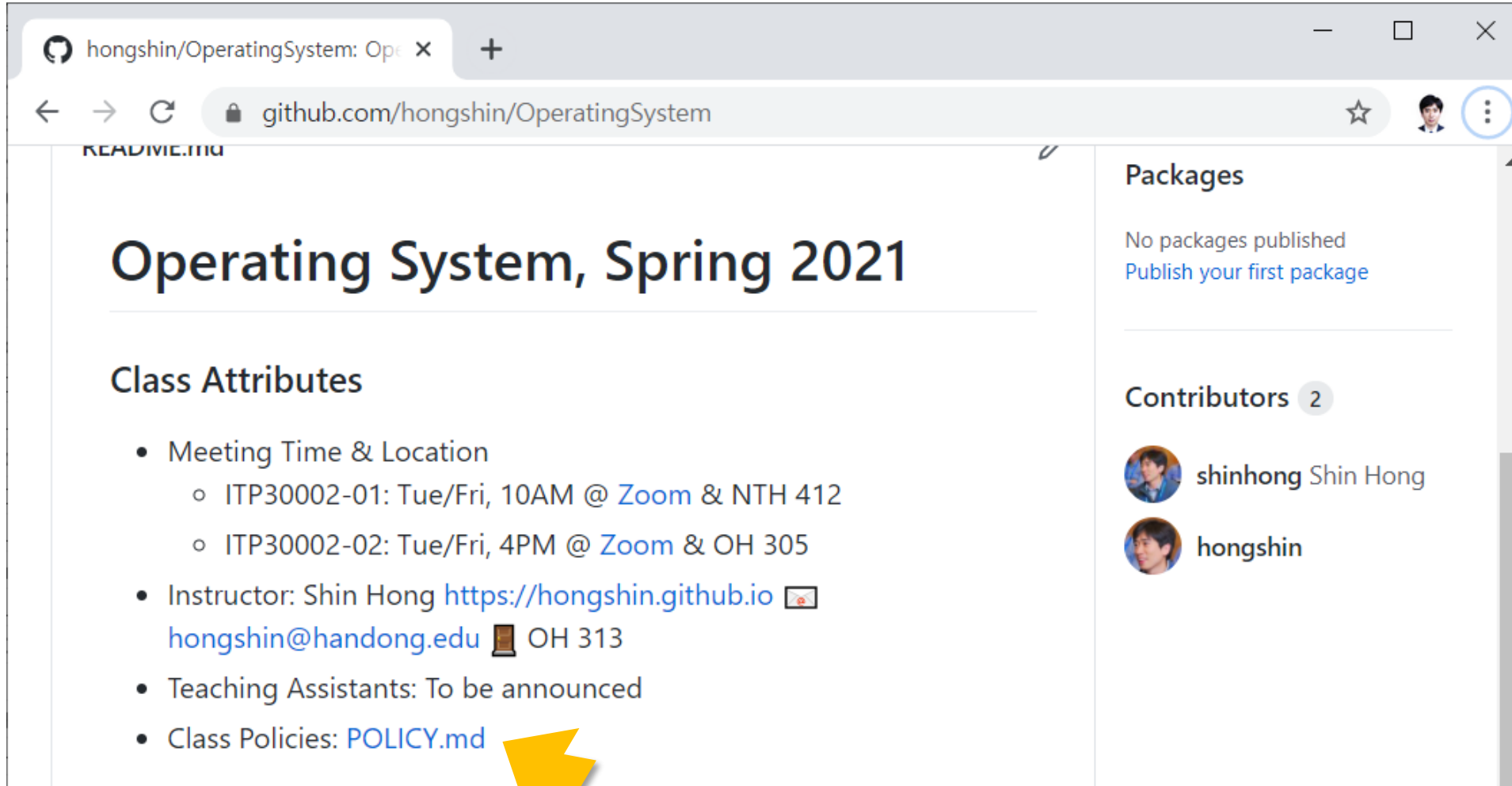
Discussion Contribution

- Your question, answers or in a class time is considered as discussion contribution
- Declare your discussion contribution point by leaving a comment on the corresponding cell at the google spreadsheet
 - ITP 30002-01: <http://takeme.kr/@ITP30002-01-discussion>
 - ITP 30002-02: <http://takeme.kr/@ITP30002-02-discussion>

Class Policies

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- <https://github.com/hongshin/OperatingSystem/blob/master/POLICY.md>



The screenshot shows a web browser window displaying a GitHub repository page. The browser's address bar shows the URL `github.com/hongshin/OperatingSystem`. The repository name is "Operating System, Spring 2021". Under the heading "Class Attributes", there is a bulleted list of information. A yellow arrow points to the link "POLICY.md" in the last bullet point. On the right side of the page, there are sections for "Packages" (stating no packages are published) and "Contributors" (listing two contributors: shinhong and hongshin).

hongshin/OperatingSystem: Op x +

← → ↻ 🔒 github.com/hongshin/OperatingSystem ☆ 👤 ⋮

README.md

Operating System, Spring 2021



Class Attributes

- Meeting Time & Location
 - ITP30002-01: Tue/Fri, 10AM @ Zoom & NTH 412
 - ITP30002-02: Tue/Fri, 4PM @ Zoom & OH 305
- Instructor: Shin Hong <https://hongshin.github.io> 🖥️ hongshin@handong.edu 📖 OH 313
- Teaching Assistants: To be announced
- Class Policies: [POLICY.md](#)

Packages

No packages published
[Publish your first package](#)

Contributors 2

-  shinhong Shin Hong
-  hongshin

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Ground Rules

- Students learn course subjects by reading textbooks, solving exercise problems and doing homework primary
 - not by receiving things at class meeting
 - the major purpose of a class meeting is interactive discussion
- Students are expected to spend at least 6 hours per week to follow up what's covered in the classes (3 hours) of the week
 - beside the time for homework and meetings
- In doing homework, finding and understanding requirements is a crucial task that each student needs to accomplish by oneself

Ground Rules for Successful Distributed Class

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- Online attendees must not do other things in class time
 - not mandatory, but highly recommend to turn your camera on
- Online attendees must put their best efforts to prepare remote class environment
 - time, place, equipment, network status, etc.
 - prepare for interactive in-class communication
- All class members must be considerate of the other class member's circumstances and their right to study
 - should accept that we have a variety in our study circumstances
 - should not do any activity that possibility hurt the others' privacy
- Students must not record video/audio of lectures without prior permission

Course overview

2021-03-02

Study Guidelines

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- Read, read, read textbook
 - buy the textbook and keep it near you
 - read regularly
 - use a dictionary if you find an unfamiliar word
 - use your hands to repeat examples
 - memorize definitions
 - peruse stories in boxes
 - never expect that all materials will be covered at class time
- Solve exercise problems by yourself
 - read the problem sentence carefully
 - write down an answer completely, and never stop at a middle
 - do have a group study
- Try best to think together (i.e., discuss) at a meeting time
 - participate or loss the time

Course overview

2021-03-02

Homework 1 (deadline: 11:59 PM, Mar 4)

- Submit the course entrance survey
 - ITP 30002-01: <http://takeme.kr/@ITP30002-01-survey>
 - ITP 30002-02: <http://takeme.kr/@ITP30002-02-survey>
 - deadline (strict) : 11:59 PM, March 4 (Th)
 - evaluation: taking 15% of the homework score
 - require Slack sign-in and Peace account creation