

Operating Systems

# Midterm Instruction

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20 April 2021

# Time and Location

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- Time: 7-9 PM, Oct 22 (Thur)
  - Two classes are taking exam at the same time
  - You must send an email to [hongshin@handong.edu](mailto:hongshin@handong.edu) by 11 PM today if you are infeasible to take exam at this schedule.
- Location: @Zoom - <https://handong.zoom.us/my/hongshin>
  - You can enter the session from 6:45 PM. Attendance check will start at 6:55 PM.
  - No late attendees can take exam (this is strict).

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# Exam

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- Closed book, closed note, and no electric devices
  - electric devices are restricted for connecting Zoom and displaying problem and uploading the images of your answers
- All answers must be written with your hand
  - Answer sheet with empty answer boxes will be uploaded to the course github on April 21 (Wed). You must have a hard copy of it.
  - Problem sheet will be uploaded when the exam starts.
  - You must write answer on the answer sheet, and then upload its photo to the specified Google Form (the URL can be found at the problem sheet).
- You will be given 6 to 8 problems to solve in 2 hours.

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# Instruction (1/2)

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- On your desk
  - You must have a hard copy of the answer sheet
  - No other papers are allowed. For memo, use the empty spaces in the answer sheet.
- Zoom
  - You must turn your camera on to show yourself throughout the exam
  - If you get disconnected, you must immediately notify your situation within one minute via Slack
- Problem Sheet
  - Problem sheet which shaped like a lecture note, will be given as a PDF file
  - You **MUST NOT** print out the problem sheet.

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# Instruction (2/2)

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- Uploading Answers

- You must handwrite an answer on the corresponding box in the answer sheet
- Take a photo for each answer, and then upload the image to a Google Form (as a JPG, PNG file). An image file must be smaller than 100 MB.
- You can make submission in multiple times.
- Accessing this Google Form requires the sign in with your Handong account
- For sake of back-up, a Hisnet homework repository will be opened where you can upload the archive or your answer images (not mandatory)
- Recommend you to backup the answer images on cloud storages where file change history is tracked automatically

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# Example of Answer Image

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- Ex. Problem sheet of the 2020 Operating System class:

<https://github.com/hongshin/OperatingSystem/blob/2020spring/notes/final-problems.pdf>

- Answer image (from Discrete Math course)

ITP30002: Problem 2	Name: [REDACTED]	Student Number [REDACTED]
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Write in bigger letter than this sentence.

when increasing concurrency, ~~the potential of deadlocks occurring also increases~~, the programmers must ensure that the tasks perform equal work of equal value. Also, the data accessed and manipulated by the tasks must be divided to run on separate cores <sup>to avoid data splitting</sup>. The programmer must also ensure that the execution of the tasks is synchronized to accommodate the data dependency when one task depends on data from another to ensure data dependency. Lastly, because more ~~are~~ different execution paths are possible when increasing concurrency, programmers need to deal with harder testing and debugging.

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