Operating System

1. Course Description

In this course, you will learn basic functions and mechanisms of operating systems, and things required to modern operating systems. Specifically, you will learn the following.
* An overview of operating systems
* Operating systems from the viewpoint of end users
* Principles of operating systems
* Structures of processes and scheduling
* Concurrency
* Memory management
* Virtualization
* File systems
* Authentication and access control
These serve as a basis for knowledge on DP2.

2. Course Objectives

In this course, you will be required to acquire knowledge related to the following when completing the course.
* User interfaces and application programming interfaces provided to end users and programmers
* Fundamental concepts, evaluation indicators and standardization of operating systems
* Operations by operating systems as processes of programs
* Functions increasingly important these days, such as network communications and security

3. Grading Policy

Your grade will be assessed based on the score of the mastering examination and evaluations of tasks. You do not earn the credits unless the following two conditions are satisfied.
(1) You must pass all tasks (quizzes in every class).
(2) You must obtain the score higher than the qualifying score (60%) in the mastering examination.
You must pass all the quizzes in order to take the mastering examination. You will receive elucidations and evaluations in the LMS.

4. Textbook and Reference

Textbook
Ken'ichiro Noguhi   IT Text Operating Systems (Second Edition), ISBN 978-4-274-22156-9   Ohmsha

5. Requirements(Assignments)

You will receive instructions for preparation for each class on the LMS. Check points for each class while following the instructions. A task will be provided in each class, which must be completed before the next class.

6. Note

N/A

7. Schedule

[1]   Roles of Operating
[2]   User Interfaces in Operating Systems
[3]   Programming Interfaces in Operating Systems
[4]   Constructions of Operating Systems
[5]   Input/Output Control
[6]   File Management
[7]   Processes and Their Management
[8]   Multiprocesses
[9]   Memory Management
[10]   Virtual Memory
[11]   Virtualization
[12]   Network Control
[13]   Security and Reliability, System Management
[14]   Performance of Operating Systems, Operating Systems and Standardization
[15]   Review of the classes