

OPERATING SYSTEM CONCEPTS

Chapter O. Prologue

A/Prof. Kai Dong

Contents



1. Some Introduction to Me

2. Some Introduction to the Coarse

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Contents



1. Some Introduction to Me

2. Some Introduction to the Coarse

Course Orientation



Learning outcome:

- Explain and evaluate the operation of the internal algorithms and structures of a modern multi-user/multi-tasking operating system.
- Critically compare and evaluate the operation of a number of different example operating systems.
- Apply to the solution of a range of problems, the fundamental concepts, principles and algorithms employed in the operation of a multi-user/multi-tasking operating system.

Course Orientation



For Students from **SEU**:

- One of the basic courses for the major of Computer Science & Engineering, and the major of Software Engineering.
- Most important content in the postgraduate entrance examination.
 - Data structure (45 points, 30%)
 - Operating system (60 points, 40%)
 - Principles of computer composition (45 points, 30%)

Assessments



For Students from **SEU**:

TI501M (TI601M) - Operating Systems							
Semester	Semester 3 (Spring)						
# of Hours	Lecture	Mid-term	Discussion	After-class Lab Work	Total		
	48 hours	4 hours	12 hours	16 hours	80 hours		
Assessments	2-hour	100-min	Performance/	Lab Work	-		
	Final	Mid-term	Exercise	Evaluation			
	60%	15%	10%	15%	100%		

Assessments



For Students from **EFREI PARIS**:

TI501M (TI601M) - Operating Systems						
Semester	Semester 5 (August/September Group)					
# of Hours	Lecture/Seminar	Supervised Lab Work	Total Guided and			
	Lecture/Seminar	Supervised Lab Work	Independent Learning			
	30 hours	10 hours	80 hours			
Assessments	2-hour Exam	Lab Work Evaluation				
Assessments	60%	40%	100%			

Operating Systems Discipline



- Laptop, tablet and cell phone allowed (mute), but
- Do not deal with anything unrelated to the class.
- Any copying or plagiarism is prohibited.

Bibliography

- Operating System Concepts
 - Operating System Concepts. Abraham Silberschatz & Greg Gagne & Peter B Galvin. Seventh edition, photocopy edition, Higher Education. ISBN 978-7-040-20928-0. (¥72)
 - Operating System Concepts. Abraham Silberschatz & Greg Gagne & Peter B Galvin. Ninth edition, photocopy edition, China Machine Press. ISBN 978-7-111-60436-5. (¥99)
 - Currently in the tenth edition. (\$ 96.95)
- Operating System Concepts Essentials
 - Operating System Concepts Essentials, Abraham Silberschatz & Peter B Galvin & Greg Gagne & Greg Gagne. Second edition, photocopy edition, China Machine Press. ISBN 978-7-111-60648-2. (¥95)
 - Currently in the second edition. (\$ 127.95)

Operating Systems Learning Method



Lab work is important.

- I hear and I forgot, I see and I remember, I do and I understand.
- Not having heard something is not as good as having heard it; having heard it is not as good as having seen it; having seen it is not as good as knowing it; knowing it is not as good as putting it into practice. —Confucian philosopher Xunzi.

content of courses - see details in Syllabus.xlsx

Overview	Introduction	
Overview	Operating-System Structures	
	Processes	
	Threads	
Process management	Process Synchronization	
	CPU Scheduling	
	Deadlocks	
Memory Management	Main Memory	
Memory Management	Virtual Memory	
	Mass-Storage Structure	
Storago managoment	File-System Interface	
Storage management	File-System Implementation	
	I/O Systems	