



Меѓународен Универзитет Визион - International Vision University
 Universiteti Ndërkombëtar Vizion - Uluslararası Vizyon Üniversitesi

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SYLLABUS

COURSE NAME	COURSE CODE	SEMESTER	COURSE LOAD	ECTS
OPERATING SYSTEMS	4027	5	180	6

Prerequisite(s)	None
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Course Language	Turkish
Course Type	Required
Course Level	First Cycle
Course Lecturer	
Course Assistants	
Classroom	
Extra-Curricular Office Hours and Location	Meeting: Consultancy:

Course Objectives	The goal of this course is to give the basic informations about the theory of today's operating systems, process and thread concepts, memory management, file system and I / O principles.
Course Learning Outcomes	In the end of this course students will be able: <ul style="list-style-type: none"> To give a brief history of previous operating systems and they can explain how modern operating systems work; Structurally to define the operating systems; To design the kernel modules (such as: threads, scheduling and inter-process communication units) of the operating systems using the various techniques; To evaluate the results of memory management, I/O techniques and file system; To apply security and protection precautions to a computer; To design the units for multimedia, network and distributed operating systems.
Course Contents	The main contents of this course are: Introduction: Processes, threads, scheduling and inter-process communication, Memory management: a simple technique for memory management, virtual memory management techniques, the operating system policies for virtual memory management and the segmented memory structure, File systems: files, folders, file systems, file systems implementation and examples, Input / Output: I / O software and hardware principles, layered I / O structure, disks, clocks, terminals and graphical interface units, Dead-lock; resources, deadlock detection and recovery, deadlock avoidance and prevention, Multi-media operating systems, Security, and Distributed and network operating systems.

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	Introduction to operating systems	Related Chapters of Course Sources
2	Processes and Threads	Related Chapters of Course Sources
3	Threads, Process and Thread Scheduling	Related Chapters of Course Sources
4	Deadlocks	Related Chapters of Course Sources
5	Inter-process communication	Related Chapters of Course Sources
6	Memory Management	Related Chapters of Course Sources
7	Mid-term Exam	Related Chapters of Course Sources
8	Virtual Memory	Related Chapters of Course Sources
9	Virtual Memory Management Policies	Related Chapters of Course Sources
10	File systems	Related Chapters of Course Sources
11	File and backup systems	Related Chapters of Course Sources
12	Management of File System	Related Chapters of Course Sources
13	Management of Input-Output	Related Chapters of Course Sources
14	Security and Protection	Related Chapters of Course Sources
15	Final Exam	Related Chapters of Course Sources

ECTS / WORKLOAD TABLE

Presentation / Seminar			
Hours for off-the-classroom study (Pre-study, practice)	14	3	42
Midterm Exam	1	12	12
Final examination	1	14	14
Total Work Load			
ECTS		6	

GENERAL PRINCIPLE RELATED WITH COURSE

Dear students,

In order to be included, learn and achieve full success that you deserve in the courses you need to come well prepared by reading the basic and secondary textbooks. We are expecting from you carefully to obey to the course hours, not to interrupt the lessons unless is very indispensable, to be an active participant on the courses, easily to communicate with the other professor and classmates, and to be interactive by participating to the class discussions. In case of unethical behavior both in courses or on exams, will be acting in framework of the relevant regulations. The attendance of the students will be checked in the beginning, in the middle or at the end of the lessons. Throughout the semester the students who attend to all lectures will be given 15 activity-attendance points in addition to their exam grades.

SOURCES

COMPULSORY LITERATURE		
No	Name of the book	Author's Name, Publishing House, Publication Year
1	İşletim Sistemleri ve Sistem Programlama	Avcı, M., Özyıldırım., B.M., Ülgen, O., Karahan Kitabevi, 2012
2	Modern Operating System	Andrew S. Tanenbaum, Prentice Hall, 2008
3		

ADDITIONAL LITERATURE		
No	Name of the book	Author's Name, Publishing House, Publication Year
1	İşletim Sistemleri ve Sistem Programlama	Mutlu Avcı, Buse Melis Özyıldırım , Onur Ülgenö Karahan Kitabevi, 2016
2	Modern Operating Systems	Tanenbaum, Prentice Hall 2007
3		

EVALUATION SYSTEM

Underlying the Assessment Studies	NUMBER	PERCENTAGE OF GRADE
Attendance/Participation	15	%10
Project / Event	1	%20
Mid-Term Exam	1	%35
Final Exam	1	%35
TOTAL	17	%100

ETHICAL CODE OF THE UNIVERSITY

In case of the students are cheating or attempt to cheat on exams, and in the case of not to reference the sources used in seminar studies, assignments, projects and presentations, in accordance to the legislations of the Ministry of Education and Science of Republic of Macedonia and International Vision University, will be applied the relevant disciplinary rules. International Vision University students are expected never to attempt to this kind of behavior.