NEU, Department of Computer Information Systems

Course Unit Title	Operating Systems
Course Unit Code	CIS 202
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor"s degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	0
Laboratory (hour/week)	1
Year of Study	2
Semester when the course unit is delivered	2
Course Coordinator	Ahmet Hızlı
Name of Lecturer (s)	Ahmet Hızlı
Name of Assistant (s)	-
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 131
Recommended Optional Programme Components	Basic background knowledge on OS

Objectives of the Course:

- Understanding how an OS works
- Relationship between hardware and OS
- To have information about different kind of OS and their working principles

Learning Outcomes

	When this course has been completed the student should be able to	Assessment.
1	Understand OS"s structure	1
2	Using OS	1
3	Using OS"s with real examples	2
4	Using Linux	2
5	Using Windows	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Apply computer technology to address business information system needs.	5
2	Demonstrate a deeper understanding of at least one area of computing, such as programming, networking, technical support or web technology, enabling the student to gain employment in the information systems field.	3
3	Demonstrate critical thinking in understanding, evaluating and applying technology solutions to real life problems.	4
4	Demonstrate familiarity with e-commerce resources, tools, including web programming, publishing, database management tools.	5
5	Articulate ethical and professional standards to the use of computer information systems and computer based data.	3
6	Effectively use personal, interpersonal and communication skills in team work, time management in projects and self-learning.	5

7	Grow professionally through continuing education, research and development, and involvement in professional activities to recognize the need to engage in continuing professional development and lifelong learning.	4
8	Identify, analyze and develop solutions for information systems-related business problems/opportunities.	4
9	Demonstrate knowledge of current information, theories and models, and techniques and practices in all of the major business disciplines including the general areas in information technologies.	3

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	1	Introduction, General definition and history	
2	2	Processor Scheduling, Scheduler, Performance	
3	2	Processor Scheduling, Algorithms, FCFS	
4	2	Processor Scheduling, SPF	
5	2	Processor Scheduling, SRTF, RRS, Priority	
6	3	Memory Management, Partitioning,	
7		Revision	
8			Mid-term
9	3	Memory Management, Paging, Segmentation	
10	4	Virtual Memory	
11	5-6	Deadlocks, Interprocess Communication	
12	6-7	Interprocess Communication, Unix for	
13	8	Unix Shell	
14		Revision	
15			Final

Recommended Sources

Textbook: Operating Systems: Principles and Practice, Thomas Anderson, Michael Dahlin, Recursive Books; 2 edition, 2014

Supplementary Material (s): The Design of the UNIX Operating System, Maurice J. Bach, Prentice Hall; 1st edition, 1986.

Assessment

Attendance & Assignment	5%	
Midterm Exam (Written)	30%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour
Course duration in class (including the Exam week)	15	3	45
Tutorials	15	3	45
Assignments	5	2	10
Project/Presentation/Report Writing	-	-	-
E-learning Activities	1	4	4
Quizzes	2	1	2

Midterm Examination	1	2	2
Final Examination	1	2	2
Self-Study	14	5	70
Total Workload			180
Total Workload/30 (h)			6
ECTS Credit of the Course			6