

Course Descriptor

INTE201 Fundamentals of Operating Systems

ACADEMIC YEAR	2020-2021		
Course Code & Title	INTE201 Fundamentals of Operating Systems		
Credit hours	3	Level of study	Undergraduate-Year Two
College / Centre	COBA		
Co-requisites		Pre-requisites	INTE101

1. COURSE OUTLINE

[Operating system plays a major role in the computing activities industry. It is a computer program which is used to mediate between a computer user and computer hardware. This course introduces a student to the fundamental of operating system where students will have a broader understanding of what operating system is and gain a broader knowledge of its use. Students will also get hands-on operating systems practice.]

2. AIMS

[This course aims to equip students to apply the fundamental knowledge and skills of modern operation systems, principles and ideas in processes and threads, mutual exclusion, CPU scheduling, deadlock, memory management, file systems and OS security]

3. LEARNING OUTCOMES, TEACHING, LEARNING ,ASSESSMENT METHODS , and Graduate Attributes Mapping

Learning Outcomes (Definitive)	Teaching and Learning methods (Indicative)	Assessment (Indicative)	Graduate Attributes Mapping
Upon successful completion of this course, students will be able to:			
1 Demonstrate general understanding of the Fundamentals of Operating Systems core concepts	e.g, lectures, online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation.	e.g., tests, assignments, individual or group project, participation	Knowledge of a discipline. Commitment to national development and Omani ethical values.
2 Describes the concepts of Operating Systems infrastructures	e.g, lectures, online videos tutorials and seminars, online group discussions using LMS,	e.g., tests, assignments, individual or group	Knowledge of a discipline.

	independent readings, individual or group work, presentation.	project, participation	
3 Discuss strategies of operating system management	e.g, lectures, online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation.	e.g., tests, assignments, individual or group project, participation	Knowledge of a discipline.
4 Evaluate operating system and implementation	e.g, lectures, online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation.	e.g., tests, assignments, individual or group project, participation	Knowledge of a discipline.

4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
Mid-term Exam	30
Final Exam	30
Assignments	30
Participation	10
TOTAL	100%

5. ACHIEVING A PASS

Students will achieve 3 credit hours for this course by achieving a minimum overall score of 50%
*NB *Ensure that ALL learning outcomes are taken into account*

6. COURSE CONTENT (Indicative)

LECTURE TOPIC	TIME (HOURS)
Chapter 1: Introduction to operating system	8
Chapter 2: The Process Concept	8
Chapter 3: Threads and Concurrency	8
Chapter 4, Synchronization	8

Chapter 5: Process Scheduling & Memory Management	7
Chapter 6: File System,	6
TOTAL HOURS	45
Plus RECOMMENDED INDEPENDENT STUDY HOURS	
TOTAL COURSE HOURS	45

7. RECOMMENDED READING

Core text/s:

1. Guide to Operating Systems by Greg Tomsho Cengage Learning, Aug 16, 2016
2. Silbershatz, Galvin, and Gagne, 2011, Operating System Concept Essentials, John Wiley & Sons. ISBN 978-0-470-88920-6.
3. Andrew Tanenbaum, Modern Operating Systems, Prentice Hall.
4. William Stallings, Operasting Systems, Prentice Hall.

**[Library + online resources: ASU library
ASU online resources (ProQuest and e-library) and
Sultan Qaboos University Library.**