Jordan University of Science and Technology
Faculty of Computer and Information Technology - Department of Software Engineering

SE103 Introduction to Information Technology (Course Syllabus)

First Semester 2023-2024

Course Information

College	**Faculty of Computer and Information Technology**				
Department	**Software Engineering**				
Academic Year	2023/2024 onwards		**Current Semester**	First 2023/2024	
Course Code	SE103		**Course Title**	**Introduction to Information Technology**	
Credit Hours	3	**Theoretical** 3	**Practical**	Synchronous and Asynchronous Course	
Course Level (Year/ Semester)	**Year**	1	**Semester**	First / Second / Summer Semesters	
Pre-Requisite				**Co-Requisite**	
Required/Elective/Special Topics	Required				
Web Address					

Instructors / Lectures / Office Hours / Support & Interaction Information

Name	**Dr. Moh'd A. Radaideh**		
Email	maradaideh@just.edu.jo		
Office Number	Engineering Buildings, N2L0		
Office Phone	+962-2-7201000 Xt. 22457		
Sections	1 and 2		
	Section #1 (Dr. Moh'd Radaideh)	**SUN/TUE (Synchronous)** In-class lectures on Sundays and Tuesdays (8:30-9:30AM) Room: C5023	**SUN/MON (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams
	Section #2 (Dr. Moh'd Radaideh)	**SUN/TUE (Synchronous)** In-class lectures on Sundays and Tuesdays (9:30-10:30AM) Room: A2125	**SUN/MON (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams
Communication and Interaction Methods	**Interaction:** - **Synchronous Lectures**: 2 Synchronous Lectures per Week (Sundays & Tuesdays). - **Asynchronous Self-Readings Material (ZOOM Discussion Meetings** will be for 1-3 hours every week). - In-Office Office Hours: SUN/TUE 10:30-13:30 **e-Support and Interaction:** - Email (maradaideh@just.edu.jo) - JUST e-Learning (learn.ejust.org) - Dr. Radaideh (Software Engineering) | Facebook (https://www.facebook.com/groups/DR.RADAIDEH.SPM) - Dr. Moh'd A. Radaideh - YouTube (https://www.youtube.com/user/radaideh03)		
Name	**Dr. Khaldoon Al-Zoubi**		
Email	ktalzoubi@just.edu.jo		
Office Number	Engineering Buildings, M2L2		
Office Phone			
Sections & Communication and Interaction Methods	3		
	Section #3 (Dr. Khaldoon Al-Zoubi)	**SUN/TUE (Synchronous)** In-class lectures on Sundays and Tuesdays (11:30-12:30AM) Room: G2120	**THU (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams
Name	**Dr. Qasem Abu Al-Haija**		
Email	q.abualhaija@psut.edu.jo		
Office Number	Engineering Buildings, N2L1		
Office Phone			
Sections & Communication and Interaction Methods	10		
	Section #10 (Dr. Qasem Abu Al-Haija)	**MON/WED(Synchronous)** In-class lectures on Sundays and Tuesdays (08:30-09:30AM) Room: A2122	**THU (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams

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Name	**Dr. Hala Hamadeh**		
Email	hala.hamadeh@gmail.com		
Office Number	Engineering Buildings		
Office Phone			
Sections & Communication and Interaction Methods	8, 11 and 12		
	Section #8 (Dr. Hala Hamadeh)	**SUN/TUE (Synchronous)**In-class lectures on Sundays and Tuesdays (10:30-11:30AM) Room: NF46	**THU (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams
	Section #11 (Dr. Hala Hamadeh)	**MON/WED(Synchronous)**In-class lectures on Mondays and Wednesdays(10:00-11:00AM) Room: M5123	**THU (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams
	Section #12 (Dr. Hala Hamadeh)	**MON/WED(Synchronous)**In-class lectures on Mondays and Wednesdays(11:30-12:30AM) Room: C5023	**THU (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams
Name	**Dr. Khaled Alrawashdeh**		
Email	alrawakm@gmail.com		
Office Number	Engineering Buildings, N2L1		
Office Phone			
Sections & Communication and Interaction Methods	5 and 4		
	Section #4 (Dr. Khaled Alrawashdeh)	**SUN/TUE (Synchronous)**In-class lectures on Sundays and Tuesdays (12:30-1:30 PM) Room: M5127	**THU (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams
	Section #5 (Dr. Khaled Alrawashdeh)	**SUN/TUE(Synchronous)**In-class lectures on Sundays and Tuesdays (1:30-2:30 PM) Room: A3129	**THU (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams
Name	**Suzan Bdour**		
Email	bsuzan@just.edu.jo		
Office Number	Engineering Buildings, A2L3		
Office Phone			
Sections & Communication and Interaction Methods	6, 7, and 9		
	Section #6 (Suzan Bdour)	**SUN/TUE (Synchronous)**In-class lectures on Sundays and Tuesdays (10:30-11:30 AM) Room: C2009	**THU (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams
	Section #7 (Suzan Bdour)	**SUN/TUE(Synchronous)**In-class lectures on Sundays and Tuesdays (12:30-1:30 PM) Room: A3131	**THU (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams
	Section #9 (Suzan Bdour)	**SUN/TUE(Synchronous)**In-class lectures on Sundays and Tuesdays (9:30-10:30 AM) Room: A3131	**THU (Asynchronous** 3 hours of Self-Readings and an optional weekly virtual online meeting via ZOOM or TEAMS) Asynchronous Material will be included for the Quizzes & Exams

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Course Description

This course introduces the latest major concepts of Information Technology (IT) encompassing the Internet of Things and smart systems, cyber security, artificial intelligence, big data, blockchain, and social media. It also presents a perspective foundation on the range of underlying theoretical and practical principles regarding information technology and how they would impact the lifestyle of individuals.

Textbook(s)

Textbook #1	**Title**	Technology in Action
	Author(s)	Alan Evans • Kendall Martin • Mary Anne Poatsy
	Publisher / Year / Edition	Pearson / 2020 / 13th Edition
Textbook #2	**Title**	Computer Science: AN OVERVIEW
	Author(s)	J. Glenn Brookshear, Dennis Brylow
	Publisher / Year / Edition	Pearson Education Limited / 2020 / 13th Edition

Prerequisites: None

Assessment

Assessment	Expected Due Date	Percentage
First Exam	TBA	15%
Second Exam	TBA	15%
Quizzes	TBA	20%
Final Exam	TBA	50%

Course Learning Outcomes (CLOs)

#	CLOs	Mapping to IET LOs	Weight 100%	CLOs vs. Assessment			
				Quizzes 20%	First 15%	Second 15%	Final 50%
CLO1	Explain the role of information technology and its foundation basics.	C8	10 %	5%	5%	-	-
CLO2	Understand the impacts of information technologies on everyday life.	C7	10 %	2.5%	2.5%	2.5%	2.5%
CLO3	Gain knowledge with the technologies behind artificial intelligence and machine learnings.	C13	10 %	2.5%	2.5%	2.5%	2.5%
CLO4	Get familiar with latest topics about cyber security technology.	C11	10 %	-	-	-	10%
CLO5	Get exposure to the essentials and operating principles of the Internet of Things and smart systems.	C11	10 %	-	-	-	10%
CLO6	Understand the basics of blockchain technology.	C11	10 %	-	-	-	10%
CLO7	Understand core concepts and applications behind big data problems.	C8	10 %	2.5%	-	2.5%	5%
CLO8	Get aware of how public relations and marketing have changed due to the rise of social media.	C18	10 %	2.5%	-	2.5%	5%
CLO9	Learn about how using information technology would change the world.	C18	10 %	2.5%	2.5%	2.5%	2.5%
CLO10	Acquire insight into the future trends of technologies.	C11	10 %	2.5%	2.5%	2.5%	2.5%
			100%	**20%**	**15%**	**15%**	**50%**

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Course Topics

	Topic	Book Chapter	Week(s)
Module 1	**Sub-module 1.1**: IT Impact and AI	Chapter 1 – Textbook #1	1-4 (8 lectures)
Module 2	**Sub-module 2.1** - From System Software to System Hardware	Slides Only	
	Sub-module 2.2 - Computer Organization	Chapter 2 – Textbook #1	
Module 3	**Sub-module 3.1:** Numbering Systems	Chapter 1 – Textbook #2	5-6 (4 lectures)
	Sub-module 3.2: Data Storage	Chapter 1 – Textbook #2	
Module 4	**Sub-module 4.1:** Data Sciences	Slides Only	7 (2 lectures)
Module 5	**Sub-module 5.1:** Programming Concepts	Slides Only	8 (1 lecture)
Module 6	**Sub-module 6.1:** Software Engineering	Slides Only	8-10 (5 lectures)
Module 7	**Sub-module 7.1:** Networking	Chapter 7 – Textbook #1	11-12 (4 lectures)
Module 8	**Sub-module 8.1:** Security	Chapter 9 – Textbook #1	13-14 (4 lectures)

Teaching & Learning Methods

1. Class lectures and lecture notes are designed to achieve the course objectives.
2. You should read the assigned chapters before class and participate in class
3. Do whatever it takes for you to grasp this material and ask lots of questions.
4. You are responsible for all material covered in the class.
5. Please communicate any concerns or issues either in class or at my office hours.

Policies

Quizzes	1. All quizzes must be done independently. 2. 6 or more quizzes will be given, and the best 6 will be counted.
Exams	3. The format for the midterm and final exams will be multiple-choice questions. 4. Makeup exam should not be given unless there is a valid excuse.
Attendance	5. University attendance policies will be honored.

IET Learning Outcomes

Math & Science	C1	Apply knowledge of mathematics, statistics, natural science and engineering principles to the solution of complex problems. Some of the knowledge will be at the forefront of the particular subject of study
Engineering Analysis	C2	Analyse complex problems to reach substantiated conclusions using first principles of mathematics, statistics, natural science and engineering principles
	C3	Select and apply appropriate computational and analytical techniques to model complex problems, recognising the limitations of the techniques employed
	C4	Select and evaluate technical literature and other sources of information to address complex problems
Design and Innovation	C5	Design solutions for complex problems that meet a combination of societal, user, business and customer needs as appropriate. This will involve consideration of applicable health & safety, diversity, inclusion, cultural, societal, environmental and commercial matters, codes of practice and industry standards
	C6	Apply an integrated or systems approach to the solution of complex problems
The Engineer and Society	C7	Evaluate the environmental and societal impact of solutions to complex problems and minimise adverse impacts
	C8	Identify and analyse ethical concerns and make reasoned ethical choices informed by professional codes of conduct
	C9	Use a risk management process to identify, evaluate and mitigate risks (the effects of uncertainty) associated with a particular project or activity
	C10	Adopt a holistic and proportionate approach to the mitigation of security risks
	C11	Adopt an inclusive approach to engineering practice and recognise the responsibilities, benefits and importance of supporting equality, diversity and inclusion
Engineering Practice	C12	Use practical laboratory and workshop skills to investigate complex problems
	C13	Select and apply appropriate materials, equipment, engineering technologies and processes, recognising their limitations
	C14	Discuss the role of quality management systems and continuous improvement in the context of complex problems
	C15	Apply knowledge of engineering management principles, commercial context, project and change management, and relevant legal matters including intellectual property rights
	C16	Function effectively as an individual, and as a member or leader of a team
	C17	Communicate effectively on complex engineering matters with technical and non-technical audiences
	C18	Plan and record self-learning and development as the foundation for lifelong learning/CPD