Faculty: Information Technology	
Department: Computer Science	**Program: Bachelor**
Academic year:	**Semester:**

Course Plan

First: Course Information

Course No.: 1501360	***Course Title:*** *Research Methodology and Ethics*	***Credit Hours: 3***	***Theoretical: 3***	***Practical: 0***
Prerequisite No. and Title:		***Section No.:***	***Lecture Time:***	
Level in JNQF	***7***			
Type Of Course:	☐ ***Obligatory University Requirement*** ☐ ***Elective University Requirement*** ☐ ***Obligatory Faculty Requirement*** ☐ ***Elective Faculty Requirement*** ☐ ***Obligatory Specialization Requirement*** ■ ***Elective Specialization Requirement*** ☐ ***Ancillary course***			
Type of Learning:	☐ ***Face-to-Face Learning*** ■ ***Blended Learning (2 Face-to-Face + 1 Asynchronous)*** ☐ ***Online Learning (2 Synchronous+ 1 Asynchronous)***			

Second: Instructor's Information

Course Coordinator:					
Name:		***Academic Rank:***			
Office Number:		***Extension Number:***		***Email:***	
Course Instructor:					
Name:		***Academic Rank:***			
Office Number:		***Extension Number:***		***Email:***	
Office Hours:	***Sunday***	***Monday***	***Tuesday***	***Wednesday***	***Thursday***

Third: Course Description

Methods and ethics this course is designed to be a prerequisite to the graduation project. The main and purpose of this course is to provide you with a broad introduction to the foundations and tools that can help you to do a good job in your graduation project. Topics include: Research methodology, Technical writing, Presentation skills, Manage team working, and legal and ethical issues

Fourth: Course Objectives

1. Learn about the different approaches to conduct computer science research (i.e. experimental, quantitative, and qualitative and, literature survey ...).
2. Gain an understanding of the importance of ethics and integrate ethics into the computing process.
3. Get experience in working within a team and cooperate effectively with other workers on a project
4. Get a broad view of the ongoing research in the information technology domain
5. Get good technical writing practices.
6. Make excellent project presentations.
7. Practice some related tools.

Fifth: Learning Outcomes

Level descriptor according to (JNQF)	***CILOs Code***	***CILOs*** If any CLO will not be assessed in the course, mark NA.	***Associated PILOs Code*** *Choose one PILO for each CILO**	***Assessment method*** *Choose at least two methods*
Knowledge	**K1**	Course Syllabus discussion to acquire fact about concepts, explain different approaches to conduct computer science research	**PK1**	• Mid-term Exam • Final Exam
	K2	Recognize research problem, team members, make excellent project presentations	**PK2**	• Mid-term Exam • Final Exam
	K3	Define research problem, Integrate ethics into the computing process.	**PK3**	• Mid-term Exam • Final Exam • Quiz
Skills	**S1**	Develop research problems that encounter an Information Technology	**PS1**	• Mid-term Exam • Final Exam

				• Quiz
	S2	Analyze a research problem for better understand and design a methodology to solve a research problem	**PS2**	• Mid-term Exam • Final Exam
	S3	Design and evaluate different research methodology. Implement practice on some related tools	**PS3**	• Mid-term Exam • Final Exam
	S4	Demonstrate technical writing and strategic thinking.	**PS4**	• Mid-term Exam • Final Exam • Quiz
Competencies	**C1**	Establish strong interpersonal and communication skills for successful group project , by sharing knowledge and skills	**PC1**	• Project presentation
	C2	Exhibit leadership qualities in computer science related projects toward successful group project	**PC2**	• Project presentation
	C3	Utilize innovation and creativity through continuing professional development and work and cooperate effectively	**PC3**	• Project presentation
	C4	Apply research skills and critical thinking effectively with other workers on a project through good presentation skills	**PC4**	• Project presentation

*CILOs: Course Intended Learning Outcomes; PILOs: Program Intended Learning Outcomes; For each CILO, the PILO could be the same or different. .

Sixth: Learning Resources

Main Reference:	***Business research methods***		
Author: William G. Zikmund, Barry J. Babin, Jon C. Carr, Mitch Griffin.		***Issue No.: 9th ed.***	***Publication Year: 2013***
Additional Sources & Websites:	• ***Vaishnavi, Vijay K., and William Kuechler., "Design science research methods and patterns: innovating information and communication technology" 2015, Crc Press***		
Teaching Type:	■ ***Classroom*** □ ***Laboratory*** □ ***Workshop*** ■ ***MS Teams*** ■ ***Moodle***		

Seventh: Course Structure

Week	Course Intended Teaching Outcomes (CILOs)	Topics	Teaching Procedures*	Teaching Methods**	References***
1	K1	Course Syllabus discussion to acquire fact about concepts, explain different approaches to conduct computer science research	Face-to-Face	Lecturing	Chapter-01
		What is research methods?	Asynchronous	video	
2	K1	Recognize research problem. Explain research process	Face-to-Face	Lecturing	Chapter-01
	K2	Research process	Asynchronous	video	
3	K1, K2	Recognize The value of interactive methods, information gathering	Face-to-Face	Lecturing, discussion and solving problems	Chapter-01
	K2	Select research problem.	Asynchronous	Video, Short Quiz	Chapter-02
4	K3	Recognize research problem. Integrate ethics into the computing process	Face-to-Face	Lecturing	Chapter-02
		Select team members.	Asynchronous	Video ,Self-reading	Chapter-03
5	K3,S1	Develop and investigate a research problems that encounter an Information Technology	Face-to-Face	Lecturing	Chapter-03
		Collecting data	Asynchronous	Video	
6	S1	Develop and model a research problem for better understand	Face-to-Face	Lecturing	Chapter-04
7	S1	Develop and model a research problem for better understand	Face-to-Face	Lecturing	Chapter-04
		Information sources	Asynchronous	Video,Self-reading	
Mid-term Exams					
8	S3	Design and evaluate different research and implement practice on some related tools	Face-to-Face	Lecturing	Chapter-04
		Information sources	Asynchronous	Video ,Short Quiz	

9	S4	Investigate practice some related tools.	Face-to-Face	Lecturing	Chapter-04
			Asynchronous	Video, Self-reading	
10	C1	Establish building a good team with strong relationship for group project	Face-to-Face	Lecturing	Chapter-05
		What makes an effective team	Asynchronous	Video, Self-reading	
	C2	Exhibit leadership qualities in computer sciences projects toward successful group project	Face-to-Face	Lecturing	Chapter-05
		Factors critical for strong team	Asynchronous	Video,Self-reading	Chapter-06
11	C1,C2,C3, C4	Group presentations	Face-to-Face	Lecturing	Chapter-06
	C2	How to make excellent presentation	Asynchronous	Video,Self-reading	
12	C1,C2,C3, C4	Group presentations	Face-to-Face	Lecturing	Chapter-06
	C2	How to make excellent presentation	Asynchronous	Video,Self-reading	
13	C1,C2,C3, C4	Group presentations	Face-to-Face	Lecturing	Chapter-06
	C2	How to make excellent presentation	Asynchronous	Video,Self-reading	
Final Exams					

* Teaching procedures: (Face-to-Face, synchronous, asynchronous).
** Teaching methods: (Lecture, video….).
*** Reference: (Pages of the book, recorded lecture, video….)

Eighth: Assessment Methods

Methods	Online Learning	Blended Learning	Face-To-Face Learning	Specific Course Output to be assessed **If any CILO will not be assessed in the course, mark NA.										
				K1	K2	K3	S1	S2	S3	S4	C1	C2	C3	C4
First Exam														
Second Exam														
Mid-term Exam			30	✓	✓	✓	✓	✓						
Participation														
Asynchronous Activities														
Quizzes			10		✓			✓		✓				
Assignments			5											
Group presentation			5								✓	✓	✓	✓
Final Exam			50	✓	✓	✓	✓	✓	✓	✓				
Total out of 100			100											

Ninth: Course Policies

- All course policies are applied to all teaching patterns (online, blended, and face-to-face Learning) as follows:
  a. Punctuality.
  b. Participation and interaction.
  c. Attendance and exams.
- Academic integrity: (cheating and plagiarism are prohibited).

Approval	Name	Date	Signature
Head of Department			
Faculty Dean			