



كلية الحاسوب وتكنولوجيا المعلومات

Faculty of Computer and Information Technology (FCIT)

وثيقة برنامج تكنولوجيا المعلومات

Information Technology Program Specification

وحدة الجودة في الكلية

2024م

Vise Dean for Quality
assurance

Head of Department

Dean of the Faculty

Dean of Academic
Development center
and Quality

Rector of Sana'a University



1. Program Identification and General Information

Scientific name of the program:	Information Technology
Total credit hours required to award the degree	135 credit hours
Number of years needed for completion of the program:	4 years
The body responsible for granting the degree:	University and Ministry of Higher Education and Scientific Research
The body responsible for the program:	Department of Information Technology
Award granted on completion of the program:	Bachelor degree
Study system:	Term based
Study Language of the Program:	English/Arabic
Entry requirements:	Scientific High School Degree
Departments participating in the program:	Information Technology
Starting year of the program:	
Study methods in the program:	Lecture/tutorials/labs
Location of Delivery:	Faculty building
The program resources:	
Minimum grade requirements:	50%
Other admission requirements:	
Date of program development:	
Prepared by :	

2. Overview

This program of information technology offers a bachelor degree in information technology. This is the second program description, and it is compliance with NARS and ABET.

3. University Vision, Mission and Goals

3.1 University Vision

تطمح جامعة صنعاء الى الريادة الوطنية في التعليم والتعلم والبحث العلمي وخدمة المجتمع وأن تكون من أفضل الجامعات الإقليمية وبيت الخبرة في اليمن.



1. تقديم وتطوير برامج أكاديمية وبحثية متميزة في مجالات الحاسوب وتكنولوجيا المعلومات وفقاً لمتطلبات الجودة والاعتماد الأكاديمي.
2. إعداد كوادر علمية وبحثية متخصصة في مجالات الحاسوب وتكنولوجيا المعلومات قادرة على المنافسة والإبداع في سوق العمل محلياً وإقليمياً.
3. المساهمة في تطوير المعرفة في مجالات الحاسوب وتكنولوجيا المعلومات من خلال تشجيع البحث العلمي وتوجيهه لخدمة المجتمع وتنميته.
4. تقديم الاستشارات العلمية والتقنية ذات العلاقة بمجالات الحاسوب وتكنولوجيا المعلومات والمساهمة في تدريب الكوادر الفنية للقطاعات المختلفة.
5. إقامة علاقات شراكة مع المؤسسات العلمية المناظرة لتبادل الخبرات في المجالات العلمية والبحثية.

5. Department Vision, Mission and Goals:

5.1 Department Vision

أن يكون القسم رائداً في مجال تكنولوجيا المعلومات أكاديمياً وبحثياً على المستوى الوطني والإقليمي.

5.2 Department Mission

تقديم برامج أكاديمية وبحثية متميزة في مجال تكنولوجيا المعلومات وتطبيقاته وفقاً لمعايير الجودة والاعتماد الأكاديمي بما يخدم المجتمع ويلبي متطلبات سوق العمل.

5.3 Department Goals

1. تقديم برامج أكاديمية متميزة في مجال تكنولوجيا المعلومات وتطبيقاته تلبي متطلبات سوق العمل.
2. إعداد مخرجات متخصصة مزودة بالمعارف العلمية والمهارات المهنية والبحثية في مجال التكنولوجيا وتطبيقاتها.
3. توفير بيئة ملائمة ومحفزة للإبداع والابتكار والتميز البحثي.
4. تنمية قدرات الكادر الأكاديمي القسم للتعليم الذاتي والتواصل الفعال والعمل بروح الفريق الواحد مع مراعاة أخلاقيات المهنة.
5. تقديم الاستشارات العلمية والتقنية، والمساهمة في تدريب الكوادر الفنية للقطاعات المختلفة في مجال التكنولوجيا.

6. Program Mission, Goals, and Outcomes

6.1 Program Mission

تقديم خدمة تعليمية متميزة وفقاً لمعايير الجودة والاعتماد الأكاديمي بما يكسب الطلبة المعرفة العلمية والمهنية في مجال تكنولوجيا المعلومات لتلبية احتياجات المجتمع وسوق العمل.

6.2 The overall aims of the program



1. تزويد الطلبة بالمعارف العلمية والمهارات المهنية في مجال تكنولوجيا المعلومات .
2. تنمية قدرات الطلبة بما يمكنهم من التواصل الفعال، و العمل بروح الفريق، والتعلم الذاتي المستمر.
3. رفد المجتمع المحلي والاقليمي بكوادر كفؤة ومؤهلة في مجال تكنولوجيا المعلومات قادرة على تحليل وتقييم احتياجات المؤسسات وتقديم الحلول الملائمة.
4. تقديم مشاريع علمية موجهة لخدمة المجتمع.

7. Program Standards& Benchmarks:

7.1 Academic Standards

- 1- ABET Criteria for Accrediting Engineering Technology Programs.
- 2- National Academic Reference Standards (NARS): Software Engineering Program.

7.2: Program Benchmarks

- 1- King Saud University, College of Computer and Information Sciences, Information Technology KSA
- 2- United Arab Emirates University, College of IT, Al Ain, United Arab Emirates
- 3- Westcliff University ,College of Business, Information Technology, USA
- 4- Ahlia University, COLLEGE OF INFORMATION TECHNOLOGY, Information Technology, BAHRAIN
- 5- BATANGAS STATE UNIVERSITY, COLLEGE OF INFORMATICS AND COMPUTING SCIENCES, Information Technology, Philippines

8. Learning Outcomes:

A. Knowledge and Understanding:

Upon successful completion of the Program, graduates should be able to:

- A1. Demonstrate an understanding of appropriate concepts, theories, mathematical foundations, models and techniques related to Information technology discipline.
- A2. Identify the computing desired needs for different computer-based systems, components, processes and human factors, and consider them during the selection, integration, and administration technologies to meet the organization's goals.
- A3. Demonstrate knowledge of computer and communication networks, information technology and networks security, distributed and cloud computing, and operating systems of different platforms.
- A4. Explain the information technology policies and procedures, project management methods/tools, data and management information systems, network management, and system integration & architecture.



A5. Describe the principals of programming foundations, data and risk management, web and multimedia applications, system administration tools and techniques, human-computer Interaction, and professional communication.

B. Cognitive/ Intellectual Skills:

Upon successful completion of the program, graduates should be able to:

- B1. Propose appropriate information technology based solutions and integrate them effectively into the user and organization environment.
- B2. Analyze the impact of computing on organizational objectives and customer needs, and consider them during the analytical processing, selection, integration, configuration and administration of computer-based systems.
- B3. Explore and integrate computing products and services to improve the performance of secured computing-based solutions.
- B4. Evaluate the functions and related issues focusing on information technology solutions to design and develop information technology policies, tools and techniques to achieve administrative policies within a corporate environment.

C. Practical and Professional Skills:

Upon successful completion of the program, graduates should be able to:

- C1. Employ effectively the concepts, principles of computational approaches, computing systems, communication and modern technologies in the problem-solving process.
- C2. Perform required information technology policies and procedures and employ technologies to achieve administrative policies within a corporate environment
- C3. Use information technology infrastructure approaches and tools to specify, design, implement, develop and document appropriate solutions.
- C4. Administer, control, configure and maintain the organization systems and data security to minimize and handle risks management to enhance organizational performance.
- C5. Work effectively on IT-project management, programming skills, implementation or simulation tools, operating systems with different platforms, and different applications including web, mobile and multimedia applications.



D. General and Transferable Skills:

Upon successful completion of the program, graduates should be able to:

- D1. Work effectively within a team or individually to accomplish a common goal
- D2. Engage in a life-long self-learning, time management, leadership and communicate effectively with specialists as well as non-specialists to solve organization problems.
- D3. Write and present technical reports and deliverables effectively.
- D4. Demonstrate efficient skills in IT-project management, research capability, creative thinking and interpersonal relationship skills.
- D5. Use the governmental and environmental regulations to develop Information technology policies within an organization based on professional ethics, privacy, security and legal responsibility.
- D6. Keep up with modern technologies, tools and standards to improve organization performance.

9. Graduates Attributes

1. Demonstrate knowledge of information technology discipline theoretically and practically.
2. Identify information technology problems and requirements using computational approaches, modern information technologies, tools and techniques.
3. Analyze, design and manage computing-based solutions within the context of information technology discipline to meet the organization's goals and business objectives.
4. Use the acquired knowledge to evaluate, select and manage computing technologies solutions and resources for integrating and securing various information technology solutions.
5. Follow the rules of information technology policies development and procedures during the selection, integration, and administration of computer-based systems.
6. Describe the impact of information technology competencies on individuals, organizations and society to achieve professionalism.
7. Work effectively within a team or individually in planning, implementing, deploying, configuring, maintaining, and managing practices and technology trends of organization's computing infrastructures.
8. Use efficiently project management, research capability, leadership, communication, interpersonal relationship and life-long learning skills.
9. Demonstrate commitment to ethical, legal, security and social responsibilities as professionals in information Technology.



10. Teaching and Learning Strategies

1. Active lectures
2. Tutorials
3. Seminar/ project/presentation
4. Interactive class discussions
5. Exercises and home works
6. Laboratory based session
7. Directed self- study/ Independent learning
8. Problem solving
9. Team work (group learning)

Teaching Strategy	Description
Active lectures	The lectures are conducted in the class. It are provided on a weekly basis. It also showing students what they need to know, the teacher incorporates a variety of formats including lectures and multimedia presentations.
Tutorials	Some courses need to have tutorial sessions to solve problems related to the subjects. the students exchange their knowledge with the teacher.
Seminar/ project/presentation	Assigned project is given to student and he must give a seminar to present his project.
Interactive class discussions	Interactive class discussions are carried out about some aspects. related to the subject. It involves a large or small group activity that encourages students to focus on a topic and contribute to the free flow of ideas. The teacher may begin a brainstorming session by posing a question or a problem, or by introducing a topic. Students then express possible answers, relevant words and ideas
Exercises and home works	Exercises and home works are assigned to students periodically so the students will gain more knowledge about the subjects,
Laboratory based session	Laboratory based sessions are required for some courses to balance between theoretical and practical issues.
Directed self- study/ Independent learning	The student should be directed to some related references to read and summarize some



Problem solving	This allows students to become more active in their learning as they work out which information they need to find out how to solve a particular problem.
Team work (group learning)	The students are assigned to work in a small group as a team on some subjects.

11. Assessment Tools

1. Written tests (Mid and final Terms)
2. Written assignments such as multiple choice questions and Quizzes
3. Oral exams
4. Report/Project/ Practical Lab Sessions
5. Coursework Activities
6. Home works and assignments
7. Case studies
8. Presentations

Assessment Strategy	Description
Written tests (Mid and final Terms)	Mid. term & Final exams for each course is required for all courses except Graduation Projects. These exams will evaluate the extent in which the student understanding of theoretical and applied subjects
Written assignments such as multiple choice questions and Quizzes	Some points are assigned to multiple choice questions and Quizzes in order to asses' student ability to follow the lecturer during the study course.
Oral exams	Oral exams is useful to evaluate the extent of understanding the different subjects of the course.
Report/Project/ Practical Lab Sessions	Assessing students to their ability to write theoretical and lab reports as well as the understanding of organizing the reports. The practical lab sessions are required for some courses.
Coursework Activities	Course work Activities is one of the assessment methods by which it can evaluate students.
Home works and assignments	Home works and assignments will evaluate students according to their ability to explain and illustrate the assignments they are given.



Case studies	Assigning case studies to students is very helpful to assess the extent of understanding the topics.
Presentations	Is an assessment of the ability of organizing and the way of presentation.

11.1 Project Assessment

Each project will be assessed by a committee of three members as follows

Item	Marks Distribution
Research project supervisor	60
Internal examiner: a member of the department teaching staff.	20
External examiner: a qualified external examiner (either from other departments of the faculty or from another university)	20
Total	100

11.2 Training Course Assessment:

11.3 Alignment of Program Intended Learning Outcomes (PILOs) with Teaching Strategies and Assessment Methods:

PILOs	Teaching Strategy	Assessment Methods
Knowledge and Understanding	Active lectures, tutorials, interactive class discussions, problem solving	Written tests, written assignments such as multiple choice questions and quizzes, oral exams, coursework activities. home works and assignments, presentation
Intellectual Skills	Active lectures, tutorials, interactive class discussions, problem solving, exercises and home works, seminar/project/presentation	Written tests, written assignments such as multiple choice questions and quizzes, oral exams, coursework activities, case studies, home works and assignments, presentation



Professional & practical skills	Seminar/project/presentations, exercises and home works, laboratory based session, problem solving	Written tests, oral exams, home works and assignments, report/project/practical lab sessions
General & Transferable Skills	Seminar/project/presentations, directed self-study/independent learning, team work (group learning)	Report/project, case studies

12. Intended Learning Outcomes Mapping:

See Annexes 6,7, and 8.

(Annex 6: Alignment of Program Themes with Program Intended Learning Outcomes (PILOs))

(Annex 7: Coding System and Alignment of Courses with Program Intended Learning Outcomes (PILOs))

(Annex 8: Matrix of Mapping Program PILO's With Courses)

13. Program Structure

13.1 Requirements

No	Requirements	No. of Courses	Credit Hours	Rational Weight %
1	University Requirements	Compulsory	8	17
		Elective	-	-
2	Faculty Requirements	Compulsory	6	15
		Elective	-	-
3	Program Requirements	Compulsory	31	94
		Elective	3	9
4	Field training, and the rate of the total hours of the program	--		
Total:		48	135	100%

13.2 University Requirements

Compulsory Courses (13 hrs)								
No	Course Code	Course Name	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites	Level/ Semester
1		Islamic Culture	2	0	0	2	--	
2		Arabic Language (1)	2	0	0	2	--	
3		English Language (1)	2	0	0	2	--	
4		Arabic Language (2)	2	0	0	2	Arabic Language (1)	
5		English Language (2)	2	0	0	2	English Language (1)	
6		Arabic Israel Conflict	2	0	0	2		
7		National Culture	2	0	0	2		
8		Computer skills	1	0	1	2		
Total Credit						16		

13.3 University Requirements

Vise Dean for Quality Assurance

Head of Department

Dean of Faculty



Compulsory Courses (18 hrs)								
No	Course Code	Course Name	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites	Level/ Semester
1		Islamic Culture	2	-	-	2		L1,S1
2		Arabic Language (1)	2	-	-	2		L1,S1
3		English Language (1)	2	-	-	2		L1,S1
4		Arabic Language (2)	2	-	-	2	Arabic Language (1)	L1,S2
5		English Language (2)	2	-	-	2	English Language (1)	L1,S2
6		Arabic Israeli Conflict	2	-	-	2		L1,S1
7		National Culture	2	-	-	2		L1,S2
8		Computer Skills	2	-	-	3		L1,S1
Total Credit						17		

13.4 Faculty Requirements

Elective Courses (6 hrs)								
No	Course Code	Course Name	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites	Level/ Semester
1		Programming Fundamentals	2	-	2	3		1/1
2		Communication Skills	2	-	-	2	English Language (1)	2/2
3		Professional Ethics	2	-	-	2		4/1
4		Research Methodology	2	-	-	2		3/1
5		Graduation Project (1)	3	-	-	3		4/1
6		Graduation Project (2)	3	-	-	3		4/2
Total Credit						15		

13.5 Program Major

Compulsory Courses (96 hrs)								
No	Course Code	Course Name	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites	Level/ Semester
1		IT Fundamentals	3	0	0	3	-----	
2		General Management	3	0	0	3	-----	
3		Object Oriented Programming	2	0	2	3	Programming Fundamentals	
4		Discrete Mathematics	2	2	0	3		
5		Operating Systems	2	0	2	3	Data Structure & Algorithms /Computer Organization/Computer Networks	
6		Data Structure & Algorithms	2	0	2	3	Programming Fundamentals	
7		Database Fundamentals	2	0	2	3	Introduction to Computer/Data Structures & Algorithms	
8		Visual Programming	2	0	2	3	Object Oriented Programming	

Vise Dean for Quality Assurance

Head of Department

Dean of Faculty



9	System Administration & Maintenance	2	0	2	3	Computer Networks/Operating System Concepts/Information Security	
10	Information Security	2	0	2	3	Introduction to Computer	
11	Computer Organization	2	0	2	3	Introduction to Computer	
12	Human Computer Interaction	2	0	2	3	Visual Programming	
13	System Analysis and Design	2	2	0	3	Object Oriented programming/ Database Fundamentals	
14	Web Design	2	0	2	3		
15	Computer Network	2	0	2	3		
16	Web development	2	0	2	3	Web Design	
17	Computer Network Administration	2	0	2	3	Computer Networks/Network Security	
18	Database Management Systems	2	0	2	3	Database Fundamentals	
19	IT Management	3	0	0	3	IT Management/General Management	
20	IT project Management	3	0	0	3	IT Fundamentals/General Management	
21	Cloud Computing	2	0	2	3	Computer Networks	
22	Enterprise Systems	3	0	0	3	IT Fundamentals/Computer Networks/IT Management	
23	Information Security Management	2	0	2	3	Information Security Information Security/ IT Management	
24	Internet of Things	2	0	2	3	Operating Systems/ Wireless Networks and Mobile Computing/Cloud Computing	
25	Wireless Networks & Mobile Computing	2	0	2	3	Computer Networks	
26	Network Security	2	0	2	3	Computer Networks/ Information Security	
27	Entrepreneurship	2	0	2	3		
28	Mobile Applications Development	2	0	2	3	Human Computer Interaction / Web development	
29	Probability and Statistics	2	0	2	3		
30	Graduation Project (1)	1	4	0	3	All courses of level 3	
31	Graduation Project (2)	1	4	0	3	Graduation Project (1)	
32	Elective (1)	3	0	0	3		
33	Elective (2)	3	0	0	3		
34	Elective (3)	3	0	0	3		



Total			90					
13.6 Program Elective Courses:								
		Elective Courses (9 hours should be selected)						
No	Course Code	Course Name	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites	Level/ Semester
1		Selected Topics in IT (Elective 1)	3	0	0	3		
2		Multimedia Applications (Elective 1)	3	0	0	3		
3		Advanced Web Technologies (Elective 2)	3	0	0	3		
4		Data Warehousing and Data Mining (Elective 2)	3	0	0	3		
5		Digital Forensics (Elective 3)	3	0	0	3		
6		Cybersecurity (Elective 3)	3	0	0	3		

14. Study Plan

Level 1

Semester 1								
No.	Course Code	Course Name	Arabic	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites
1		Arabic Language (1)	اللغة العربية (101)	2	0	0	2	
2		English Language (1)	اللغة الانجليزية (101)	2	0	0	2	
3		Mathematics (1)	(1) الرياضيات	2	2	0	3	
4		Programming Fundamentals	أساسيات البرمجة	2	0	2	3	
5		Islamic Culture	ثقافة اسلامية	2	0	0	2	
6		Computer Skills	مهارات الحاسوب	2	0	2	3	
7		Arabic Israel Conflict	الصراع العربي الاسرائيلي	2	0	0	2	
Total Credit Hours							17	
Semester 2								
No.	Course Code	Course Name	Arabic	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites
1		Arabic Language (2)	اللغة العربية (102)	2	0	0	2	
2		English Language (2)	اللغة الانجليزية (102)	2	0	0	2	
3		Mathematics (2)	(2) الرياضيات	2	2	0	3	
4		IT Fundamentals	أساسيات تكنولوجيا المعلومات	2	0	2	3	



5		Discrete Mathematics	الرياضيات المتقطعة	2	2	0	3	
6		Computer Programming	برمجة الحاسوب	2	0	2	3	
7		National Culture	الثقافة الوطنية	2	0	0	2	
Total Credit Hours							18	

Level 2

Semester 1								
No.	Course Code	Course Name	Arabic	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites
1		Object Oriented Programming	البرمجة الكائنية الموجهة	2	0	2	3	
2		Computer Organization	تنظيم الحاسوب	2	0	2	3	
3		Database Fundamentals	أساسيات قواعد البيانات	2	0	2	3	
4		Computer Networks	شبكات الحاسوب	2	0	2	3	
5		Probability and Statistics	الإحصاء والاحتمالات	2	2	0	3	
6		Web Design	تصميم الويب	2	0	2	3	
7		General Management	الإدارة العامة	2	0	0	2	
Total Credit Hours							20	
Semester 2								
No.	Course Code	Course Name	Arabic	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites
1		Operating Systems	نظم التشغيل	2	0	2	3	
2		Data Structures & Algorithms	هياكل البيانات والخوارزميات	2	0	2	3	
3		Web Development	تطوير الويب	2	0	2	3	
4		Database Management Systems	نظم إدارة قواعد البيانات	2	0	2	3	
5		IT project Management	إدارة مشاريع تكنولوجيا المعلومات	2	2	0	3	
6		Communication Skills	مهارات الاتصال	2	0	0	2	
Total Credit Hours							17	



Level 3

Semester 1								
No.	Course Code	Course Name	Arabic	L	T	P	Cr. Hrs.	Prerequisites Co-requisites
1		System Analysis and Design	تحليل وتصميم النظم	2	2	0	3	
2		Information Security	أمن المعلومات	2	0	2	3	
3		Visual Programming	البرمجة المرئية	2	0	2	3	
4		Human -Computer Interaction	تفاعل الإنسان والحاسوب	2	0	2	3	
5		Research Methodology	منهجية البحث	2	0	0	2	
6		IT Management	إدارة تكنولوجيا المعلومات	3	2	0	3	
Total Credit Hours							17	
Semester 2								
No	Course Code	Course Name	Arabic	L	T	P	Cr. Hrs.	Prerequisites Co-requisites
1		Wireless Networks & Mobile Computing	الشبكات اللاسلكية والحوسبة المتنقلة	2	0	2	3	
2		Network Security	أمن الشبكات	2	0	2	3	
3		System Administration & Maintenance	إدارة وصيانة النظم	2	0	2	3	
4		Cloud Computing	الحوسبة السحابية	2	0	2	3	
5		Mobile Applications Development	تطوير تطبيقات الموبايل	2	0	2	3	
6		Enterprise Systems	نظم المؤسسات	3	0	0	3	
7		Professional Ethics	أخلاقيات المهنة	2	0	0	2	
Total Credit Hours							20	



Level 4

		Semester 1									
No.	Course Code	Course Name	Arabic	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites			
1	IT411	Computer Network Administration	إدارة شبكات الحاسوب	2	0	2	3				
2	IT412	Internet of Things	إنترنت الأشياء	2	0	2	3				
3	IT413	Elective (1)	اختياري(1)	3	0	0	3				
4	IT414	Entrepreneurship	ريادة الأعمال	2	0	0	2				
5	IT415	Graduation Project (1)	مشروع التخرج(1)	3	1	0	4				
Total Credit Hours							15				
Semester 2											
No	Course Code	Course Name	Arabic	L	T	P	Cr. Hrs.	Prerequisites, Co-requisites			
1		Elective (2)	اختياري(2)	2	0	0	3				
2	IT421	Information Security Management	إدارة أمن المعلومات	2	0	2	3				
3	IT422	Elective (3)	اختياري(3)	3	0	0	3				
4	IT423	Graduation Project (2)	مشروع التخرج(2)	3	1	0	4				
Total Credit Hours							13				
Program Total Credit Hours							135				

15. Distribution of Total Credit Hours

Level	Term	University Requirements		Faculty Requirements		Program Requirements		Program Electives		Training		Total Cr. Hrs		Total Cr. Hrs./ Level
		No. of Courses	Credit Hours	No. of Courses	Credit Hours	No. of Courses	Credit Hours	No. of Courses	Credit Hours	No. of Courses	Credit Hours	No. of Courses	Credit Hours	
First	First	3	9	2	6	1	3	0	0	0	0	6	18	36
	Second	2	6	2	6	2	6	0	0	0	0	6	18	
Second	First	0	0	2	6	4	12	0	0	0	0	6	18	36
	Second	0	0	2	6	4	12	0	0	0	0	6	18	
Third	First	0	0	0	0	6	18	0	0	0	0	6	18	36
	Second	0	0	1	3	5	15	0	0	0	0	6	18	
Fourth	First	0	0	0	0	3	9	2	6	0	0	5	15	27



	Second	0	0	1	3	2	6	1	3	0	0	4	12	
Total:		5	15	10	30	27	81	3	9	0	0	45	135	135
Percentage:		11.11%		22.22%		60%		6.67%		0%		100%		

16. Admission Requirements:

- Admissions to the program shall be made as per the admission rules set by the Ministry of Higher Education and Scientific Research as well as University admission guidelines.
- General Secondary school certificate (Science Section) or any equivalent certificate with grade as specified in the admission rules made by Ministry of Higher Education and Scientific Research.
- Pass the aptitude test and personal interview.
- Any necessary requirement for specialization, decided by the Scientific Section.

17. Attendance and Graduation Requirements:

- Student attendance should not be less than 75%
- Student will graduate after successfully passing all program requirements.
- Total credit hours for the program is 132 credit hours.
- Minimum score for any student to pass any credit hours' course is 50% degree.

18. Grading System:

From 90% to 100% of total marks	Excellent
From 80% to less than 89%	Very Good
From 65% to less than 79%	Good
From 50% to less than 64%	Pass
Less than 50%	Poor/Fail

19. Facilities Required for Running the Program

1. Lecture Rooms with facilities such as chairs and tables, data show, Smart Board, etc.
2. Lab with facilities such as chairs and tables, laboratory equipment, hardware and software, data show, Smart Board, etc.
3. Library and study room.
4. Internet

20. Learning Resources:

Learning Resources	Required Material
References and Textbooks	Books (Hard or soft)
Scientific Journals	Some published journals in most leading publishers such as IEEE, Elsevier, Springer...
Computers and Electronic Devices	Computer lab
Computer software	This program needs a wide range of software for programming and simulations



Library needs	
Other Resources	

21. Program evaluation and improvement

Stakeholders participated	Assessment method	Sample size
Final year students	Focus group discussions	20%
Graduates	Questionnaires	20%
Academic Staff	Interviews	100%
Employment agencies (views)	Questionnaires	50%
External Examiners	Interviews	100%
Others CAQA	Interviews/ Documents analysis	100%

22. Program Policies

Based on University Regulations

1. (Class Attendance) :

A student should attend not less than 75 % of total hours of the subject; otherwise he/she will not be able to take the exam and will be considered as exam failure. If the student is absent due to illness, he/she should bring a proof statement from university Clinic. If the absent is more than 25% of a course total contact hours, student will be required to retake the entire course again.

2. (Tardy) :

For late in attending the class, the student will be initially notified. If he repeated lateness in attending class he/she will be considered as absent.

3. (Exam Attendance/Punctuality) :

A student should attend the exam on time. He/she is permitted to attend an exam half one hour from exam beginning, after that he/she will not be permitted to take the exam and he/she will be considered as absent in exam.

4. (Assignments & Projects) :

In general one assignment is given to the students after each chapter; the student has to submit all the assignments for checking on time, mostly one week after given the assignment.

5. (Cheating) :

For cheating in exam, a student will be considered as fail. In case the cheating is repeated three times during his/her study the student will be disengaged from the Faculty.

6. (Plagiarism) :



Plagiarism is the attending of a student the exam of a course instead of another student. If the examination committee proofed a plagiarism of a student, he/she will be disengaged from the Faculty. The final disengagement of the student from the Faculty should be confirmed from the Student Council Affair of the university or according to the university roles.

7. **(Other policies) :**

- Mobile phones are not allowed to use during a class lecture. It must be closed; otherwise the student will be asked to leave the lecture room.
- Mobile phones are not allowed in class during the examination.
- Lecture notes and assignments might be given directly to students using soft or hard copy.

Team Work

No.	Full Name	Signature
	Dr. Ammar Thabet Al-Zahari	
	Dr. Ibrahim Ahmed Albalatah	

Attached Appendices

No.	Appendix No.	Description
1	(Annex-1)	Academic Standards Curriculum Criteria of Accreditation Board
2	Annex (2)	Survey of names Similar Accredited Programs at International Universities (Benchmarks)
3	Annex-5	Survey of Course Names of Similar Program
4	Annex-6	Alignment of Program Objectives with Program Intended Learning Outcomes
5	Annex-7	Alignment of Program Objectives with Council of Accreditation Standards
6	Annex-8	Themes and their Weightage with Program Intended Learning Outcomes (PILOs)
7	Annex-9	Coding System and Alignment of Courses with Program Intended Learning Outcomes (PILOs)
8	Annex (10)	Matrix of mapping program (P ILO's) with courses



--