



## Program Specification

<b>Program Name:</b> Information Systems
<b>Qualification Level :</b> Bachelor (Level 6)
<b>Department:</b> Information Systems
<b>College:</b> Computer and Information Sciences
<b>Institution:</b> Jouf University

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## A. Program Identification and General Information

<b>1. Program Main Location:</b>		
Main Campus – Skaka Jouf University		
<b>2. Branches Offering the Program:</b>		
Not Applicable		
<b>3. Reasons for Establishing the Program:</b>		
(Economic, social, cultural, and technological reasons, and national needs and development, etc.)		
The reasons for establishing the IS program are the following: <ul style="list-style-type: none"> <li>▪ To compensate the shortage in computer information system specialty for the local and regional communities.</li> <li>▪ To improve the quality of digital services provided to the community.</li> <li>▪ To achieve the national vision by increasing the Saudi work force in the field of Information Systems (Saudization); to increase the level of dependency on national graduates.</li> <li>▪ To provide training, consultancy, and services in the field of Information Systems to the community.</li> <li>▪ To contribute to the technological development plans of the Kingdom of Saudi Arabia as a partial fulfillment of the national development plan</li> <li>▪ To contribute to economic growth of knowledge in Saudi society through providing consultant in development and management of Information Systems.</li> </ul>		
<b>4. Total Credit Hours for Completing the Program:</b> ( 135 credit hours )		
<b>5. Professional Occupations/Jobs:</b>		
<ul style="list-style-type: none"> <li>▪ Specialist in Systems Analysis</li> <li>▪ Information Systems designer</li> <li>▪ Project manager</li> <li>▪ Software designer</li> <li>▪ Computer programmer</li> <li>▪ Information Systems Expert</li> <li>▪ Data bank systems programmer</li> <li>▪ Database Administrator</li> <li>▪ Database supervisor</li> </ul>		
<b>6. Major Tracks/Pathways (if any):</b>		
<b>Major track/pathway</b>	<b>Credit hours</b> (For each track)	<b>Professional Occupations/Jobs</b> (For each track)
1. Not Applicable		
<b>7. Intermediate Exit Points/Awarded Degree (if any):</b>		
<b>Intermediate exit points/awarded degree</b>	<b>Credit hours</b>	
2. Not Applicable	Not Applicable	

## B. Mission, Goals, and Learning Outcomes

### 1. Program Mission:

Preparation of qualified scientific cadres in the various fields of Information Systems through innovative education and scientific research, which develops creative and analytical abilities that can serve the society.

### 2. Program Goals:

- Develop competitive capabilities of graduates to contribute in building effective information systems solutions.
- Contribute effectively to scientific research and the discovery of modern knowledge and methods in information systems.
- Provide community services and consulting in the field of information systems.
- Ensure the continuous development of the performance of faculty members in the fields of information systems.
- Successfully engage in life-long learning and demonstrate the capability to adapt to rapidly changing technologies in the Information Systems field.

### 3. Relationship between Program Mission and Goals and the Mission and Goals of the Institution/College.

Mission of the College	Mission of the IS Program
Preparing qualified scientific cadres in the various fields of computing through innovative education and scientific research, and develop their creative and analytical abilities that can serve the society.	Preparation of qualified scientific cadres in the various fields of Information Systems through innovative education and scientific research, which develops creative and analytical abilities that can serve the society.

There is a close correlation between the college mission and the Information Systems program mission. Indeed, the program curriculum provides high-quality education to prepare an outstanding distinguished graduate in Information Systems.

Furthermore, our IS program expands and proposes excellent educational outcomes and also offers high quality education and prepares its students in the field of information systems to fulfill the requirements of the local community and the market.

Jouf University's Mission			
Goals	Providing distinguished Educational	and research outputs	for the development of society
Goal 1	√		
Goal 2	√	√	

Goal 3	√		√
Goal 4	√	√	√
Goal 5	√	√	

The department is aware that the developed goals serve the mission of the Jouf University as shown in the above table. The goals of the program focused on key elements of the Jouf University's mission by delivering the essential knowledge, tools and skills in the science and technology to meet the key requirements of public and private organizations and enhance the knowledge and skill-based culture to serve local, regional and global communities while positively impact the environment. Strong co-relations are developed between the program's goals and the goals of the Jouf University mission to improve the social condition using science and technology and provides knowledge and skill-based work force willing to handle tasks for innovation, nurturing new knowledge and skills and serving its community by the utmost scientific knowledge available. The programs' goals are aligned with all the three dimensions, for example "providing distinguished educational" dimension of the University mission through the preparation of graduates who can continue their education through ground-breaking research in renowned higher-educational institutions.

#### **4. Graduate Attributes:**

IS Program's graduate has a set of skills and capabilities that can distinguish him/her from other graduates in labor market, represented in:

- C1. Demonstrate knowledge of Information Systems principles and applications and be able to integrate this knowledge in a variety of business and inter-disciplinary settings, acquiring knowledge continually, and following up progressive advances in science,
- C2. Capable of designing, implementing and evaluating an information system, process, component, or program to meet desired needs,
- C3. Capable of analyzing different information systems problems and identify solutions appropriate to them,
- C4. Capable of applying the concepts of computing and mathematical problems solving appropriate to the information systems,
- C5. Build and lead teams of professionals to tackle challenging Computing & Information Systems Projects,
- C6. Demonstrate the ability to use a variety of modern software tools and applications to process information,

C7. Recognition of the need for and an ability to engage in continuing professional development,

C8. Ability to discuss developments in research fields across a range of knowledge areas.

C9. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

C10: Serving the community through active involvement in community issues.

### Alignments of Characteristics of Information Systems Program with the Institution

		Graduate Attribute of the institution	IS Graduate Attributes
Knowledge	U1	Possesses a comprehensive and consistent structure of knowledge and understanding of the theories involved Principles and concepts in the field of specialization	C1
	U2	Mastery of accurate and advanced knowledge in the field of specialization, which qualifies him To meet the demands of the labor market	C1
	U3	Knowledge and understanding of research methodology and survey methods	C8
Skills	U4	Possess the ability to apply the knowledge, concepts and theories studied in Specialization to address issues and problems	C2
	U5	Critical evaluation of complex knowledge, and its use to provide innovative solutions Contemporary issues and problems	C4
	U6	Practicing methods of investigation and research on issues and problems.	C3
	U7	The use of advanced and specialized tools, machines, materials, and devices in Dealing with practical activities related to specialization, work and profession	C6
	U8	Perform a set of complex practical tasks and procedures in a specific field, related to the field of specialization or work profession.	C3
	U9	Communicate in different ways with individuals and groups to share knowledge and skills specialized.	C8
	U10	The ability to choose and use a variety of digital technology and information and communication technology tools and applications to serve the field and support and enhance research and specialized projects..	C6
Values	U11	Commitment to integrity, professional and academic ethics, and a commitment to responsible citizenship	C9
	U12	Self-evaluation of the level of learning and the way of thinking and dealing with related issues Relationship with aspects of specialization and society	C7
	U13	Mastering self-learning skills, and taking responsibility for professional development in the field of specialization.	C7
	U14	The ability to socially adapt and work in a team with high flexibility.	C5
	U15	Serving the community through active involvement in community issues that establish the values and principles of the community	C10

### Alignment

- The **C1** characteristic of graduates of information systems program are consistent with that of the institutions **U1**, as the information systems graduates acquiring Knowledge continually and understanding of essential facts, concepts, principles, theories and practices that underpin computing as an academic discipline, and following up progressive advances in Information systems fields.

- The **C2** characteristic of graduates of information systems program are consistent with that of the institutions **U4**. The consistency is clear here, as each graduate will learn the theory and practice of information systems, and develop skills to apply this knowledge to analyze and solve business problems.
- The **C3** characteristic of graduates of information systems program are consistent with that of the institutions **U6**, as the graduates of information systems program are prepared to develop analytical, critical thinking, and interpersonal skills applicable to real-world problems.
- The **C4** characteristic of graduates of information systems program are consistent with **U5** of the institutions, as the information systems graduates will be able to interpret and analyze data qualitatively and/or quantitatively using mathematical and statistical sciences.
- The **C5** characteristics of graduates of information systems program are consistent **U14** of the institutions, as the information systems graduates will be able to work effectively individually, under direct supervision and/or as part of a team.
- The **C6** characteristics of graduates of information systems program are consistent with **U10** of the institutions, as the information systems graduates utilizes modern software tools and skills for designing information systems, components and projects in various fields of IS discipline.
- The **C7** characteristics of graduates of information systems program are consistent with **U12,U13** of the institutions, as the information systems graduates will Recognize the need for and be able to engage in continuing professional development in the field of specialization
- The **C8** characteristics of graduates of information systems program are consistent with **U3** of the institutions, as the information systems graduates develop a range of fundamental research skills, through the use of online resources, technical repositories and library-based material
- The **C9** characteristics of graduates of information systems program are consistent with **U11** of the institutions, as the information systems graduates Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles
- The **C10** characteristics of graduates of information systems program are consistent with **U15** of the institutions, as the information systems graduates will be able to serve the community through active involvement in community issues.

<b>5. Program learning Outcomes*</b>	
<b>Knowledge and Understanding</b>	
<b>K1</b>	Demonstrate sound knowledge of the computing requirements to solve computer-based problems and state them in appropriate forms
<b>K2</b>	Define the essentials of analysis, design, implementation, and evaluation of computer-based system, process, component, or program to meet desired needs
<b>K3</b>	Demonstrate sound knowledge of the concepts of applied management and mathematics appropriate to the discipline
<b>Skills</b>	
<b>S1</b>	Apply the analysis, design principles, concepts of computing and mathematical problems solving appropriate to the information systems.
<b>S2</b>	Implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
<b>S3</b>	Use the current techniques and tools necessary for computing practice, delivery, use, and management of information systems.
<b>S4</b>	Communicate effectively in a variety of professional contexts.
<b>Values</b>	
<b>V1</b>	Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
<b>V2</b>	Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
<b>V3</b>	Demonstrate an ability of self-learning and continuing professional development.

		<b>Graduate Attribute of the institution</b>	<b>IS Graduate Attributes</b>	<b>PLOs</b>	<b>Goals</b>
<b>Knowledge</b>	1	Possesses a comprehensive and consistent structure of knowledge and understanding of the theories involved Principles and concepts in the field of specialization	C1	K1	G1
	2	Mastery of accurate and advanced knowledge in the field of specialization, which qualifies him To meet the demands of the labor market	C1	K2	G1
	3	Knowledge and understanding of research methodology and survey methods	C8	K3	G1
<b>Skills</b>	4	Possess the ability to apply the knowledge, concepts and theories studied in Specialization to address issues and problems	C2	S2	G2
	5	Critical evaluation of complex knowledge, and its use to provide innovative solutions Contemporary issues and problems	C4	S1	G2
	6	Practicing methods of investigation and research on issues and problems.	C3	S1	G2
	7	The use of advanced and specialized tools, machines, materials, and devices in Dealing with practical activities related to specialization, work and profession	C6	S3	G2
	8	Perform a set of complex practical tasks and procedures in a specific field, related to the field of specialization or work profession.	C3	S1	G2
	9	Communicate in different ways with individuals and groups to share knowledge and skills specialized.	C8	S4	G4
	10	The ability to choose and use a variety of digital technology and information and communication technology tools and	C6	S3	G2



		applications to serve the field and support and enhance research and specialized projects..			
Values	11	Commitment to integrity, professional and academic ethics, and a commitment to responsible citizenship	C9	V1	G3
	12	Self-evaluation of the level of learning and the way of thinking and dealing with related issues Relationship with aspects of specialization and society	C7	V3	G3
	13	Mastering self-learning skills, and taking responsibility for professional development in the field of specialization.	C7	V3	G5
	14	The ability to socially adapt and work in a team with high flexibility.	C5	V2	G3
	15	Serving the community through active involvement in community issues that establish the values and principles of the community	C10	V1	G3

The IS program operates smoothly and efficiently, with an emphasis on aligning our operations and activities with proactive planning to achieve our goals and attain skills in the field of Information Systems and its applications. The goals of IS program contribute to economic growth of knowledge in information systems for Saudi society. The learning outcomes and goals should be aligned since learning outcomes can be derived or written based on goals. In fact, our program focuses on the analysis, design, and development of information systems applications. The IS program sustains and strengthens its teaching and research to provide students with inspiration and quality education in the theory and practice of information systems.

## C. Curriculum

### 1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	8	25	18.51%
	Elective	3	6	4.44%
College Requirements	Required	13	43	31.85%
	Elective	0	0	0
Program Requirements	Required	12	40	29.62%
	Elective	5	15	11.11%
Capstone Course/Project	Required	2	5	3.7%
Field Experience/ Internship	Required	1	1	0.74%
Others				
Total		43	135	

## 2. Program Study Plan

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Common First Year Level 1	ENGL 001	English Language (1)	Required	-----	4	Institution
	CIS 101	Computer skills	Required	-----	3	Institution
	EDU 101	University Life Skills	Required	-----	2	Institution
Common First Year Level 2	ENGL 002	English Language (2)	Required	ENGL 001	4	Institution
	CIS 102	Problem Solving and Programming	Required	CIS 101	3	College
	MTH 101	Introductory Mathematics	Required	-----	3	College
Common First Year Level 3	ENGL 003	English Language (3)	Required	ENGL 002	4	Institution
	CHM 103	Chemistry	Required	-----	3	College
	MTH 102	Differential Calculus	Required	MTH 101	3	College
Level 4	IS 211	Foundations of Information systems		-----	3	Department
	ARB 100	Arabic Language Skills	Required	-----	2	Institution
	CIS 203	Computer Programing (1)	Required	CIS 102	4	College
	MTH 203	Integral Calculus	Required	MTH 102	3	College
Level 5	BUS 111	Principles of Business Administration	Required	----	5	Department
	ARB 102	Writing Skills	Required	ARB 0100	3	Institution
	CIS 211	Discrete mathematics	Required	MTH 102	4	College
	IS 251	Systems Analysis and Design (I)	Required	IS 211	5	Department
Level 6	ISL 101	Fundamentals of Islamic Culture	Required	-----	2	Institution
	CIS 204	Computer Programming (2)	Required	CIS 203	4	College

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 7	CIS 205	Data Structures	Required	CIS 203	4	College
	ISL 107	Professional Ethics	Required	-----	2	Institution
	ISL 100 or ISL 108 or ISL 109	Studies in the Biography of the Prophet of Contemporary Issues or The Role of Women in Development	Required	-----	2	Institution
	MTH 281	Statistics and Probabilities	Required	MTH 203	3	Department
	IS 352	Systems Analysis and Design (II)	Required	IS 251	3	Department
Level 8	CIS 322	Concepts of Database Systems	Required	CIS 205	4	Department
	ISL 100 or ISL 108 or ISL 109	Studies in the Biography of the Prophet of Contemporary Issues or The Role of Women in Development	Required	-----	2	Institution
	ACCT 111	Principal of Accounting and Financial Reporting	Required	---	3	Department
	CIS 342	Operating Systems	Required	CIS 205	3	College
	BUS 231	Principle of Marketing	Required	BUS 111	3	Department
Level 9	CIS 428	Programming on the web	Required	CIS 204, CIS 322	3	Department
	IS 323	Database Management Systems	Required	CIS 322	3	Department
	CNE 463	Computer Networks	Required	CIS 342	3	Department
	CIS 323	Software Project Management	Required	CIS 322	3	Department
	IS 391	Field Training	Required	Pass 135 Hours	1	Department
Level 10	IS 461	Information Security	Required	CNE 463	3	Department
	IS 471	Enterprise Architecture	Required	IS 352	3	Department
	IS 424	Data warehousing and Mining	Required	IS 323, MTH 281	4	Department

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	BUS 101 or EDU 102 or CHIN 101	University Elective Entrepreneurship or volunteer work	Elective	---	2	Institution
Level 11	----	IS Environment Elective (1)	Required	According to the course	3	Department
	-----	IS Concentration Elective (1)	Elective	135 Hours	3	Department
	IS 492	Graduation Project (1)	Required	IS 352 ,CIS 323	2	Department
	IS 406	E-Business	Required	CIS 428	3	Department
Level 12	IS 493	Graduation Project (2)	Required	IS 492	3	Department
	-----	IS Environment Elective (2)	Required	According to the course	3	Department
	----	IS Concentration Elective (2)	Elective	90 Hours	3	Department
	-----	IS Concentration Elective (3)	Elective	90 Hours	3	Department

#### University Elective Courses (2 Hours)

SN	Course Code	Course Title	Credit Hours	Pre-Requisite Courses
1.	BUS 0101	Entrepreneurship	2	-----
2.	EDU 0102	volunteer work	2	-----

#### Department Optional Courses (15) Hours

Students must select five courses from as follow:

- Three courses must be selected from the **IS Concentration Elective Courses** (List 1)
- Two courses must be selected from **IS Environment Elective Courses** (List 2)

#### List 1: IS Concentration Elective Courses (15 hours)

SN	Course Code	Course Title	Credit Hours	Pre-Requisite Courses
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1	<b>CIS 424</b>	<b>Mobile applications design and development</b>	3	<b>CIS 0204,CIS 0322</b>
2	<b>IS 442</b>	<b>Decision Support Systems</b>	3	<b>Pass 135 Credit Hours</b>
3	<b>IS 407</b>	<b>Modern web design and development</b>	3	<b>CIS 0428</b>
4	<b>IS 481</b>	<b>Fundamentals of Multimedia</b>	3	<b>Pass 135 Credit Hours</b>
5	<b>IS 482</b>	<b>Geographic information system</b>	3	<b>Pass 135 Credit Hours</b>
6	<b>IS 426</b>	<b>Information Retrieval &amp; Visualization</b>	3	<b>Pass 135 Credit Hours</b>
7	<b>IS 472</b>	<b>Enterprise Resources Planning</b>	3	<b>Pass 135 Credit Hours</b>
8	<b>IS 462</b>	<b>IT auditing and control</b>	3	<b>Pass 135 Credit Hours</b>
9	<b>IS 432</b>	<b>Information systems strategies and management</b>	3	<b>Pass 135 Credit Hours</b>
10	<b>IS 433</b>	<b>Software Quality and testing</b>	3	<b>Pass 135 Credit Hours</b>
11	<b>CIS 466</b>	<b>Human Computer Interaction</b>	3	<b>Pass 135 Credit Hours</b>
12	<b>IS 441</b>	<b>Mathematical Modeling for IS</b>	3	<b>MTH 281</b>
13	<b>IS 494</b>	<b>Selected topics in Information systems</b>	3	<b>Pass 135 Credit Hours</b>
14	<b>IS 483</b>	<b>Intelligent systems</b>	3	<b>Pass 135 Credit Hours</b>
15	<b>IS 428</b>	<b>Knowledge Management</b>	3	<b>Pass 135 Credit Hours</b>
16	<b>IS 484</b>	<b>Distributed Information systems</b>	3	<b>CNE 463</b>
17	<b>IS 425</b>	<b>Database Administration</b>	3	<b>IS 323</b>
18	<b>IS 427</b>	<b>Fundamentals of Big Data</b>	3	<b>Pass 135 Credit Hours</b>
19	<b>IS 485</b>	<b>Cloud computing solutions and applications</b>	3	<b>Pass 135 Credit Hours</b>

**List 2: IS Environment Elective Courses (8 hours)**

SN	Course Code	Course Title	Credit Hours	Pre-Requisite Courses
1	<b>BUS0 0461</b>	<b>Principles of Economic</b>	<b>4</b>	<b>-----</b>
2	<b>BUS 0241</b>	<b>Principles of Financial Management</b>	<b>4</b>	<b>BUS 0111</b>
3	<b>BUS 0211</b>	<b>Human Resource Management</b>	<b>4</b>	<b>BUS 0111</b>

4	IS 0486	Health Information Management	4	Pass 135 Credit Hours
5	IS 0408	E- Government Concepts	4	CIS 0428

### Field training

The student must finish a number of weeks in industrial/management training where to practice experience activity is defined by the department in advanced. Teaching staff supervise students through their Field training.

In addition, the field trainer/supervisor sends report to the department about student progress. At the end of the training, the student conducts a presentation about what he learned in the training. The student has to finish 135 credit hours before starting the field training Work.

### **3. Course Specifications**

Insert hyperlink for all course specifications using NCAAA template

<https://drive.google.com/file/d/181SaPHOQgCo4ae0SVkxSl83iYMxmBHLA/view>

### **4. Program learning Outcomes Mapping Matrix**

Align the program learning outcomes with program courses, according to the following desired levels of performance (**I = Introduced** **P = Practiced** **M = Mastered** )

Course code & No.	Program Learning Outcomes (Required Courses)									
	Knowledge and understanding			Skills				Values		
	K1	K2	K3	S1	S2	S3	S4	V1	V2	V3
CIS 101	I	I								

Course code & No.	Program Learning Outcomes (Required Courses)									
	Knowledge and understanding			Skills				Values		
	K1	K2	K3	S1	S2	S3	S4	V1	V2	V3
MTH 101			I	I		I				
CIS 102	I					I	I			I
MTH 102			I	I		I				
CIS 205	I		I		I	I	I			
CIS 322	I			I	I			I		
CIS 342	I	I		I	I			I		
CIS 323	I			I	I			I		
IS 211	I	I					I	I		
IS 251	I	I		I					I	
IS 352		P		P		P			P	
IS 323		P			P		P			P
CIS 428		P		P	P				P	P
CNE 463		P			P	P			P	
IS 391	M			M		M	M	M	M	
IS 406	M	M			M		M		M	
IS 424		M		M		M			M	
IS 461	M				M	M		M		
IS 471	M		M			M	M	M		
IS 492		M		M		M		M	M	M
IS 493		M		M	M	M	M	M	M	M

Course code & No.	Program Learning Outcomes (Electives Courses)									
	Knowledge and understanding			Skills				Values		
	K1	K2	K3	S1	S2	S3	S4	V1	V2	V3
IS 407	P	P		P		P			P	
IS 425	P	P		P	P				P	
IS 426	P			P	P				P	

IS 427		M		M		M		M		
IS 428	M			M		M	M		M	
IS 441			M		M	M				M
IS 442			M			M	M		M	
IS 472	P	P			P				P	
IS 481	P			P	P	P				P
IS 482	P			P			P		P	
IS 483	M		M			M				M
IS 484		M			M	M		M		
IS 485	P	P		P					P	
IS 486	M			M	M			M		
IS 462	M		M			M	M	M		
IS 432	M			M	M	M		M		
IS 433		M			M	M			M	
IS 408	M			M	M		M	M		

### 5. Teaching and learning strategies to achieve program learning outcomes

Describe policies, teaching and learning strategies, learning experience, and learning activities, including curricular and extra-curricular activities, to achieve the program learning outcomes.

The graduates should possess the knowledge, skills and values to enable them to cope with dynamic employment opportunities, but they must also understand, through the benefits and constraints of their disciplinary perspectives, who they are and how they might contribute positively to the heterogeneity they will encounter in their local, regional and global communities.

High quality learning is not possible without high quality teaching. In IS program, we use different teaching strategies including:

- Lectures
- Tutorials
- Class discussion
- Problem solving-based learning
- Case study
- Group Project-based learning
- Self-learning
- Presentation and reporting strategies
- Laboratory works

Program Learning Outcomes and Teaching Strategies work together and are aligned. They are joined together as one, coherent, unity that collectively articulate a consistent agreement between student learning and teaching.

	Program Learning Outcomes (PLOs)	Teaching and Learning Strategies	Assessment Methods
	Knowledge and Understanding		



<b>Learning Domains</b>	Demonstrate sound knowledge of the computing requirements to solve computer-based problems and state them in appropriate forms	<ul style="list-style-type: none"> <li>▪ Lecture</li> <li>▪ Tutorials</li> <li>▪ Self-learning</li> <li>▪ Class discussions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Exams</li> <li>▪ Assignments</li> <li>▪ Quizzes</li> </ul>
	Define the essentials of analysis, design, implementation, and evaluation of computer-based system, process, component, or program to meet desired needs	<ul style="list-style-type: none"> <li>▪ Lecture</li> <li>▪ Tutorials</li> <li>▪ Self-learning</li> <li>▪ Class discussions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Exams</li> <li>▪ Assignments</li> <li>▪ Quizzes</li> </ul>
	Demonstrate sound knowledge of the concepts of applied management and mathematics appropriate to the discipline	<ul style="list-style-type: none"> <li>▪ Lecture</li> <li>▪ Tutorials</li> <li>▪ Self-learning</li> <li>▪ Class discussions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Exams</li> <li>▪ Assignments</li> <li>▪ Quizzes</li> </ul>
	<b>Skills</b>		
	Apply the analysis, design principles, concepts of computing and mathematical problems solving appropriate to the information systems.	<ul style="list-style-type: none"> <li>▪ Lectures</li> <li>▪ Tutorials</li> <li>▪ Lab demonstrations</li> <li>▪ Field activities</li> <li>▪ Projects</li> <li>▪ Reports</li> <li>▪ Presentations</li> <li>▪ Class discussions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Assignments</li> <li>▪ Exit Exam</li> <li>▪ Rubric-based Project Report</li> <li>▪ Presentation</li> <li>▪ Lab Exam</li> </ul>
	Implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	<ul style="list-style-type: none"> <li>▪ Tutorials</li> <li>▪ Lab demonstrations</li> <li>▪ Field activities</li> <li>▪ Projects</li> </ul>	<ul style="list-style-type: none"> <li>▪ Assignments</li> <li>▪ Rubric-based Project Report</li> <li>▪ Lab Exam</li> </ul>
	Use the current techniques and tools necessary for computing practice, delivery, use, and management of information systems.	<ul style="list-style-type: none"> <li>▪ Lab demonstrations</li> <li>▪ Field activities</li> <li>▪ Projects</li> <li>▪ Reports</li> <li>▪ Presentations</li> </ul>	<ul style="list-style-type: none"> <li>▪ Assignments</li> <li>▪ Rubric-based Project Report</li> <li>▪ Lab Exam</li> </ul>

	Communicate effectively in a variety of professional contexts.	<ul style="list-style-type: none"> <li>▪ Presentations</li> <li>▪ Class discussions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Rubric-based Project Report</li> <li>▪ Presentation</li> <li>▪ Lab Exam</li> </ul>
	<b>Values</b>		
	Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.	<ul style="list-style-type: none"> <li>▪ Lectures</li> <li>▪ Tutorials</li> <li>▪ Field activities</li> <li>▪ Projects</li> <li>▪ Reports</li> <li>▪ Presentations</li> <li>▪ Self-learning</li> <li>▪ Class discussions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Rubric-based Project Report</li> <li>▪ Class Discussion</li> <li>▪ Presentation</li> <li>▪ Lab exam</li> </ul>
	Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.	<ul style="list-style-type: none"> <li>▪ Lectures</li> <li>▪ Tutorials</li> <li>▪ Field activities</li> <li>▪ Projects</li> <li>▪ Reports</li> <li>▪ Presentations</li> <li>▪ Self-learning</li> <li>▪ Class discussions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Rubric-based Project Report</li> <li>▪ Class Discussion</li> <li>▪ Presentation</li> <li>▪ Lab exam</li> </ul>
	Demonstrate an ability of self-learning and continuing professional development.	<ul style="list-style-type: none"> <li>▪ Lectures</li> <li>▪ Tutorials</li> <li>▪ Field activities</li> <li>▪ Projects</li> <li>▪ Reports</li> <li>▪ Presentations</li> <li>▪ Self-learning</li> <li>▪ Class discussions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Rubric-based Project Report</li> <li>▪ Class Discussion</li> <li>▪ Presentation</li> <li>▪ Lab exam</li> </ul>

The IS program is keen to implement extra-curricular activities to contribute to the achievement of Program Learning outcomes, and therefore these activities are planned in line with the learning outcomes. The development of life skills that empowers students to make informed decisions regarding their lives, academic and professional paths, and enhances their self-confidence, motivation for success and positive expectations for their future. These skills

prepare them to enjoy a productive life and enhance their capabilities in adopting responsible, healthy livelihoods and positive behaviour with the aim of self-reliance, adaptation with others and facing challenges.

The offered extracurricular activities of students are of major importance at Jouf University and College of Computer and Information Sciences. Jouf University has two Deanships that are responsible for developing, observing, performing, and following up of the necessary responsibilities and services related to students. These deanships are: (1) The Deanship of Admissions & Registration and (2) The Deanship of Student Affairs. The Deanship for Admissions and Registration is the impetus for academic progress of the student. It manages the most of students' affairs throughout their time at the program, starting with the application cycle, throughout their tenure as students and even after their graduation. On the other hand, the Deanship of Student Affairs gives programs and services that help the students and strengthen the academic excellence by giving chances for the students both inside and outside the program. It facilitates with the College of Computer and Information Sciences, other colleges and the Jouf University's administration in order to develop a good academic learning environment, which advances successful learning and personal development according to the rules and policies of Jouf University.

Extracurricular activities complement the academic curriculum by refining and developing skills, hence, enhancing students' experience. The impact of Student engagement in extracurricular activities on achievement and employment is becoming evident nowadays. The extra-curricular activities in the IS program include:

**Community Service**, which covers any sort of volunteer work included in graduation projects that help non-profit organization to manage and computerize its daily works.

**Professional training and academic clubs**, which shows that the passionate about learning and gaining a competitive advantage.

Belonging to a club or taking part in professional training is beneficial because it shows potential employers that the student have some technical skills and that the student is nationally and intentionally sought out opportunities to develop professionally. The college level committee of professional and academic training organizes at each semester a wide range of training courses covering different areas in the information systems and other disciplines. It should be also mentioned that the CIS College offers training within the framework of IBM, SAS, CISCO, ORACLE, and Microsoft certifications as an academy accredited by the corresponding institutes and organizations. There are further several clubs that are settled at the college for improving professional and practical skills of students such as IT club, programming club, cybersecurity club and electronic club. The table in the sequel summarizes some of the extra-curricular activities offered to the students and their impact on the IS program outcomes.

**Table: Contribution of Extra-curricular activity in PLOs**

	Professional Training	IS Program Learning Outcomes
--	-----------------------	------------------------------

Extra-curricular activity		K1	K2	K3	S1	S2	S3	S4	V1	V2	V3
<b>1</b>	Problem-Solving methods in programming	x				x	x				
<b>2</b>	Software design using UML	x	x		x	x	x				
<b>3</b>	Introduction to Cybersecurity	x									
<b>4</b>	Database Design and Programming Using ORACLE	x					x				x
<b>5</b>	Object Relational Database	x					x				x
<b>6</b>	Oracle Forms Application Server	x					x				x
<b>Development Entrepreneurial skills</b>											
<b>1</b>	Entrepreneurial Competition		x					x		x	x
<b>Academic Clubs</b>											
<b>1</b>	Information Technology Club	x				x	x	x		x	x
<b>2</b>	Cyber Security Club			x		x	x	x	x		x

#### 6. Assessment Methods for program learning outcomes.

Describe assessment methods (Direct and Indirect) that can be used to measure achievement of program learning outcomes in every domain of learning.

In order to assess and evaluate the extent to which the PLOs are being attained, the IS Program uses various processes. These processes are defined to keep data gathering efficient and effective, and the evaluation relevant according to the process of continuous improvement. To achieve these goals, two types of assessments, direct and indirect are performed. The indirect assessment is performed using surveys while the direct assessment results are obtained from student coursework based evaluations.

##### 1. Direct Assessment:

The direct assessment of the outcomes usually relies on the coursework and uses a variety of tools that include combinations (as defined in the articulation matrix at the beginning of academic year) of final exam, midterm tests, quizzes, homework, laboratory works, assignments, practical, projects, presentations, etc. The assessment tools do however vary from course to course.

For a given course, each PLO assessment is treated and carried out individually independent of the rest of the PLOs. The level of achievement of a given PLO can however, be based upon weighted combinations of the various tools suggested by the program.

The assessment and attainment levels of the PLOs are not influenced by the reported final grade achievement of the students. But the achievement grades of the PLOs can contribute to the final grade i.e., the higher the achievement of PLOs, the higher will be the final grades of course.

The final reported grade obtained by each student in a given course is however influenced by the level of achievement of the PLOs which is calculated based upon the instructors' assigned weights of the PLOs.

The department has identified various possible assessment tools where the instructor can choose from. The choice of the assessment tools varies from course to course. The list of the direct assessment tools are as follows:

1. Homework / Assignments
2. Quizzes / Tests
3. Mid-term Exams
4. Group (Individual) Project – Rubric Based
5. Group (Individual) Report / Research Report– Rubric Based
6. Lab Exams
7. Class- Participation/ discussion – Rubric Based
8. Presentation - Rubric Based
9. Final Exam

## 2. Indirect Assessment:

Students are asked to rate the quality of teaching and learning process through the conduction of different surveys. The IS program developed evaluation forms for many stakeholders to guide the evaluation of results obtained from the collected surveys. The table below summarizes the tools for the indirect assessment and evaluation. In this regard, formal written surveys targeting the sought outcomes are solicited from students at the end of the IS courses. The surveys are conducted by the faculty members in their respective classes or by the program coordinator.

Indirect assessment tools of the IS program

Assessment Tool	Frequency of Assessment	Target Level of Achievement
Course Student Evaluation Survey	Semester	60%
Indirect Student Survey	Each year	60%
Program Evaluation Survey (PES)	Each year	60%
Exit Surveys	Each year	60%
Employers Survey	Each year	60%

### Course Student Evaluation Surveys:

For the indirect assessment, surveys are conducted at the end of each IS course. These surveys target to obtain analysis from students towards each course at the semester end. This is designed by the deanship of quality and academic accreditation that are based upon the suggested templates NCAAA. The survey included four themes which are:

- The first theme: The beginning of the course

- The second theme: What happened during the course (progression)
- The third theme: Evaluation of the course
- The fourth theme: Overall Evaluation

The survey used the five-point scale (Likert scale), and the mean and orientation were calculated for each item. The orientation (degree of agreement) was based on the weighted average as follows:

- Very Low
- Low
- Average
- High From
- Very High

This survey is carried out at the end of each semester. It aims to measure students' perspectives about various aspects of the courses offered in the IS program. All the Course student evaluations are carried out electronically through an Electronic Student Gate.

**Indirect Student Surveys:** At the end of the semester, the students are asked to evaluate the courses they have taken, with particular emphasis on the degree of attainment of the targeted program learning outcomes via questions based upon appropriate indicators. The evaluation levels are from 1 to 5, whereby 5 is considered as outstanding.

**Program Evaluation Survey (PES):** This survey result provides valuable information on the effectiveness of the program in achieving its outcomes. Furthermore, it reflects the positive and negative aspects of the student's achievements in the program.

**Employer Satisfaction Survey:** This survey is designed specifically for students completing the program in order to measure their extent of achievement of the set outcomes intended for the program. Such surveys have important role to play in assessing the outcomes and monitoring the quality and effectiveness of IS Program.

**Exit Surveys:** At the end of each semester, a survey for the final year students is carried out. The survey sought to find out how the students perceive the program in developing analytical skills, independent thinking, and others. The questions in the surveys assessed graduating students' satisfaction in the whole components of the program and program outputs including knowledge, skills, and abilities that they gained, academic and career counseling, faculty members, materials and facilities they have encountered before graduation. Survey questions on the scale of 1 to 5 with 5 being the best.

**Student Experience Survey:** This survey is designed to provide faculty members and administration with information about the student's learning experience. In order to increase student satisfaction with the learning experience, the instructor should retain the classroom teaching method and identify novelty to improve classroom performance.

## D. Student Admission and Support:

### 1. Student Admission Requirements

The University Council determines the number of students to be admitted in the upcoming academic year according to the recommendations of Colleges' Councils and respective bodies. Admission of prospective students requires the following:

1. The applicant must hold the General Secondary Certificate or its equivalent from inside or outside Saudi Arabia.
2. The General Secondary Certificate or its equivalent must have been obtained within the last five years (Exceptions can only be decided by the University Council in light of persuasive reasons).
3. The applicant must enjoy a good conduct.
4. The applicant must pass any interviews or tests decided by the University Council.
5. The applicant must be medically fit.
6. The applicant must obtain an approval to the study from his/ her employer if he/she works in any government or private institution.
7. The applicant must meet any other conditions determined and announced by the University Council at the time of application.
8. The applicant must have not been dismissed from another university for disciplinary reasons.
9. Holders of a bachelor's degree or its equivalent may not be admitted to study another BA degree (exceptions can be decided only by the University Rector).
10. Applicants who are currently registered for another university degree or less, in this university or another one, may not be admitted.

Selection of admitted students from applicants who meet all admission requirements is taken on the basis of their grades in the general secondary certificate, personal interviews and admission tests (if any).

All newly admitted students spend their first academic year in the Common First Year. Since the language of instruction in majority of the private or public secondary schools is Arabic, the main objectives of the Common First Year program are: (a) to improve the students' English proficiency and thus enable them to pursue undergraduate studies in English, which is the principal language of instruction; (b) to review and reinforce the students' knowledge of basic mathematics and physics with English as the language of instruction; (c) to introduce the students to new university study skills needed by the students such as design studio, computer science as well as learning, communication, research and computer skills to improve their manual dexterity and develop practical skills; (d) to expose the students to the various academic specialties available in the University; and (e) to improve the students' physical well-being through health and physical education.

The students must complete all courses offered in the Common First Year program with a minimum GPA fixed in the beginning of each academic year by the IS council to be eligible for promotion to the freshman level and placement in IS program.



Placement is done normally at the end of spring (second) semester or after summer semester for irregular students, i.e., the students that must repeat courses. Irregular students are given a chance in the summer semester to complete their Common First Year courses according to the study and examination rules of Jouf University.

The IS program admission rules are provided in [the following link](#).

## **2. Guidance and Orientation Programs for New Students**

An Academic student guide is available in Arabic language on the website of the Deanship of Admission and Registration, the URL is: [http://dar.ju.edu.sa/forms/Acadmic\\_Student.pdf](http://dar.ju.edu.sa/forms/Acadmic_Student.pdf)  
This orientation program gives the new students a chance for getting more information about the program, goals and objectives for their studying Also the orientation program reinforces the new students to discuss their concerns with program administrators and graduated students.

## **3. Student Counseling Services**

(academic, career, psychological and social )

### **Guidance to Advising**

At the beginning of each academic year, the dean and faculty of each college conduct a welcome orientation of its newly admitted students. The objectives of such an orientation include but not limited to:

1. A welcoming message from the Dean aimed at facilitating their integration into the various services of the university and also to the departments of the college.
2. Introducing the students to the Academic and Student Advising Unit in the college
3. Distributing the university Advising Guide
4. Assigning faculty advisors to the individual students
5. The meeting of the coordinators of the academic guidance to consult on the academic guidance plan in the college and about ways to develop it through practical proposals by each department under the supervision of the academic guidance unit
6. Activate the service of an academic guide for the new faculty members and connect students with them to establish a balance in the service of guidance among all members of the faculty without full-time assignments.

### **Role of academic advisors**

A departmental faculty member is assigned for each student as long as he is staying with the department as a student. The academic advisor advises the student until his graduation. The advisor monitors the student's performance, rectifies any errors and observed deficiencies, guides the student in preparation of the graduation plan, helps to select the elective courses and a suitable topic for senior design project to meet his graduation plan. Other responsibilities of the academic advisors may include:

1. Monitoring the absence of the student: Monitoring the absence of students from the functions of the professor of the course, and the academic advisor to follow up cases referred to him by the coordinator's guidance in accordance with the plan.
2. Coaching about students' add and drop of courses procedures.



3. Providing students with direct and indirect access to the expertise of college members outside the classroom.
4. Advise the students of their career opportunities.
5. Advise the students psychologically by supporting them to overcome the psychological problems.
6. Advise the students socially
7. Upon noticing the signs of a student's psychological distress, the academic advisor needs to follow the mechanism of dealing with students with social or psychological problems (as provided in the [evidence](#))

#### Career Guidance

1. Workshops are conducted during the studying for students in the early stages of how to choose a career path.
2. In each academic year prior to the commencement of the practical examinations, the college participates in the professional day. On a professional day, several workshops are held to teach students how to write a C.V., how to conduct interviews and how to choose the right job. On a professional day, the university invites a group of companies specializing in Information Technology, where they are presented with graduation projects for senior students and graduates

#### **4. Special Support**

(low achievers, disabled, gifted and talented)

Universities and colleges are increasingly aware of the needs of students with a disability and students with a learning difficulty.

##### **Support for students with disabilities**

Support provided by the college includes:

- Providing a private parking space for disability students' cars
- Provide lanes on the sidewalks to allow students to go up and down instead of stairs.
- Provide elevators for moving between floors.
- making sure buildings and facilities are accessible
- encouraging flexible teaching methods
- providing support during exams
- allowing additional time to complete courses

##### **Support for gifted and talented students**

The IS program always encourages talented and gifted students and ensures their continued development as ideal future candidates for advanced studies in Information Systems field on their journey to becoming the Nation's next generation of leaders and decision-makers.

The mechanisms provided by the IS program to support low achievers and talented students are described in [the following link](#).

## E. Teaching and Administrative Staff

### 1. Needed Teaching and Administrative Staff

Academic Rank	Specialty		Special Requirements / Skills ( if any )	Required Numbers		
	General	Specific		M	F	T
Professors	IS	Machine learning/ Bioinformatics/Inform ation Security		2	2	4
Associate Professors	IS	Data Mining/ Information System development		2	2	4
Assistant Professors	IS	Systems Analysis & Design / Human Computer Interaction/ Operations management / E- Commerce/ E- Business/E- Government/E- Learning/ Big Data analysis /Cloud Computing/ Web Semantics/ Information Retrieval/ Image Processing/ Computer networks/ Software Requirements & Specifications		5	5	10
Lecturers	IS	Software Modeling/ Software Metrics and Quality Assessment/ Software Refactoring/ Knowledge Management/		5	5	10
Teaching Assistants	IS			4	4	8
Technicians and Laboratory Assistants	IS			4	4	8
Administrative and Supportive Staff	IS			2	2	4
Others ( specify )						

### 2. Professional Development

### **2.1 Orientation of New Teaching Staff**

Describe briefly the process used for orientation of new, visiting and part-time teaching staff

A new faculty member is given a copy of the Faculty Handbook that contains all information about the duties and responsibilities of the faculty, including the rights, privileges and code of conduct. For the first two semesters, the faculty members assigned courses that are within his area of specialty. If necessary and desired, the faculty member is assigned an experienced senior faculty member for guidance. Students' evaluation is used to provide feedback about the faculty member quality of teaching. The faculty member is asked to attend the workshops on effective teaching and in professional development conducted by the University. The department will:

- Provide faculty handbook that summarizes main issues, e.g., number of office hours expected, involvement in student advising, involvement in administrative tasks, vacations, code of conduct, etc.
- Introduce new teaching staff to other faculty and staff in a department meeting.

### **2.2 Professional Development for Teaching Staff**

Describe briefly the plan and arrangements for academic and professional development of teaching staff (e.g., teaching & learning strategies, learning outcomes assessment, professional development, etc.)

Faculty members are urged to participate effectively in the programs and special training offered by the Development Skills Center in Jouf University. Indeed, Jouf University provides a wide range of opportunities for professional development to its entire faculty members through the training programs provided by the Skills development center, including but not limited to:

1. Effective teaching strategies.
2. Building the achievement tests in the university stage.
3. Funding scientific research and grants.
4. Active learning strategies.
5. Citation and scientific documentation of research.
6. Effective teaching strategies.
7. Building and managing the research team.
8. Organize and manage the scientific review using the program EndNote X7.
9. Machine learning.
10. Deep learning.
11. Big Data and Data Science

Furthermore, the IS faculty members are encouraged to assist to workshops within the institution to share teaching methods, short seminars of "know-how" of new tools. They are also encouraged to attend national and international conferences attendance twice a year and to conduct regular seminars in which faculty members present latest issues in the field.

## **F. Learning Resources, Facilities, and Equipment**

### **1. Learning Resources.**

Mechanism for providing and quality assurance of learning resources (textbooks, references and other resource materials, including electronic and web-based resources, etc.)

- Requests made by faculty teaching the course.
- Subject instructors are requested to select textbooks that are commonly used by top universities in the world. Also they are required to specify other teaching materials they need.

- The course coordinators submit all the department requests in appropriate form to library administration through departmental head.
- In addition, for text books it should be ensured that it covers the whole course specifications.

## 2. Facilities and Equipment

(Library, laboratories, medical facilities, classrooms, etc.).

Facilities Available at the College of Computer and Information Sciences - Main Campus

No .	Type of Facility	Facility Number	Capacity
1	Small class room	7	20
2	Medium class room	5	30
3	Large class room	5	60
4	Computer lab	6	25
5	Auditorium	1	830
6	Non-class room	3	10
7	Meeting rooms( (for departments , vice deans and dean)	4	10
8	Lifts	6	15
9	WC	6	3
10	Library	1	
11	Photocopying/Scanning Room	1	1

Facilities Available at the College of Computer and Information Sciences – Girls Campus

No .	Type of Facility	Facility Number	Capacity
1	Small class room	5	30-35
2	Medium class room	1	40-45
4	Large class room	1	60-70
4	Computer lab	11	30
5	Auditorium	0	0
6	Non-class room	0	0
7	Meeting rooms (for departments , vice deans and dean)	1	1
8	Lifts	2	15
9	WC	2	7
10	Library	1	
11	Photocopying/Scanning Room	1	1

In main campus, IS program's courses are taught in six labs. In girl's campus, IS program's courses are taught in **eleven** labs. Each lab is equipped with **thirty two** PC for students and one for teacher.

The students of IS program not only enjoy the use of its own computing resources, but also benefit from through facilities provided by the faculty and Jouf Library. Jouf

University main campus internet bandwidth is currently 100 Mbps. Wireless internet access is installed at the faculty reaching all points of the faculty including staff and faculty offices and class rooms. Students of Jouf University can access the wireless network without passwords. Department of Information Technology at main campus provides the IT technical support for hardware, software, and network support and handles requests. The following faculty-wide and university-wide computing resources are available to staff and students:

- 1- E-Learning and Distance Learning Systems: The E-learning facility through Deanship of E-Learning and Distance Learning provides services to students and faculty through the links: <http://del.ju.edu.sa>. Faculty members use BlackBoard system to monitor their students' academic progress and insert grades. Once the faculty/student is logged in, he should be able to see all the courses allocated to him for the current semester.
- 2- The Deanship of Admission and Registration provides its academic services system students and faculty through the link <http://dar.ju.edu.sa>. Students can register courses online; monitor their academic progress, view and print transcripts/grades.

### **3. Arrangements to Maintain a Healthy and Safe Environment** (According to the nature of the program )

The course instructors or technicians of the department of Information Technology of Jouf University are responsible for the instructional activities along with relevant safety advising in laboratories. Each laboratory has its own instructions including:

1. Instructions for individual experiments.
2. Safety instructions (Electricity, high voltage equipment, heavy machines, Steam and hot equipment).
3. Tools and equipment use and handling.
4. Computers and internet instructions.
5. All the laboratories have signs showing equipment and safety instructions. Safety procedures are discussed before every practical class and observed at all times.

Furthermore,

- Fire evacuation policy and fire drills are practiced in all places.
- First aid kits are available in IS department.
- The College has emergency plans, safety signs, and emergency exit signs.

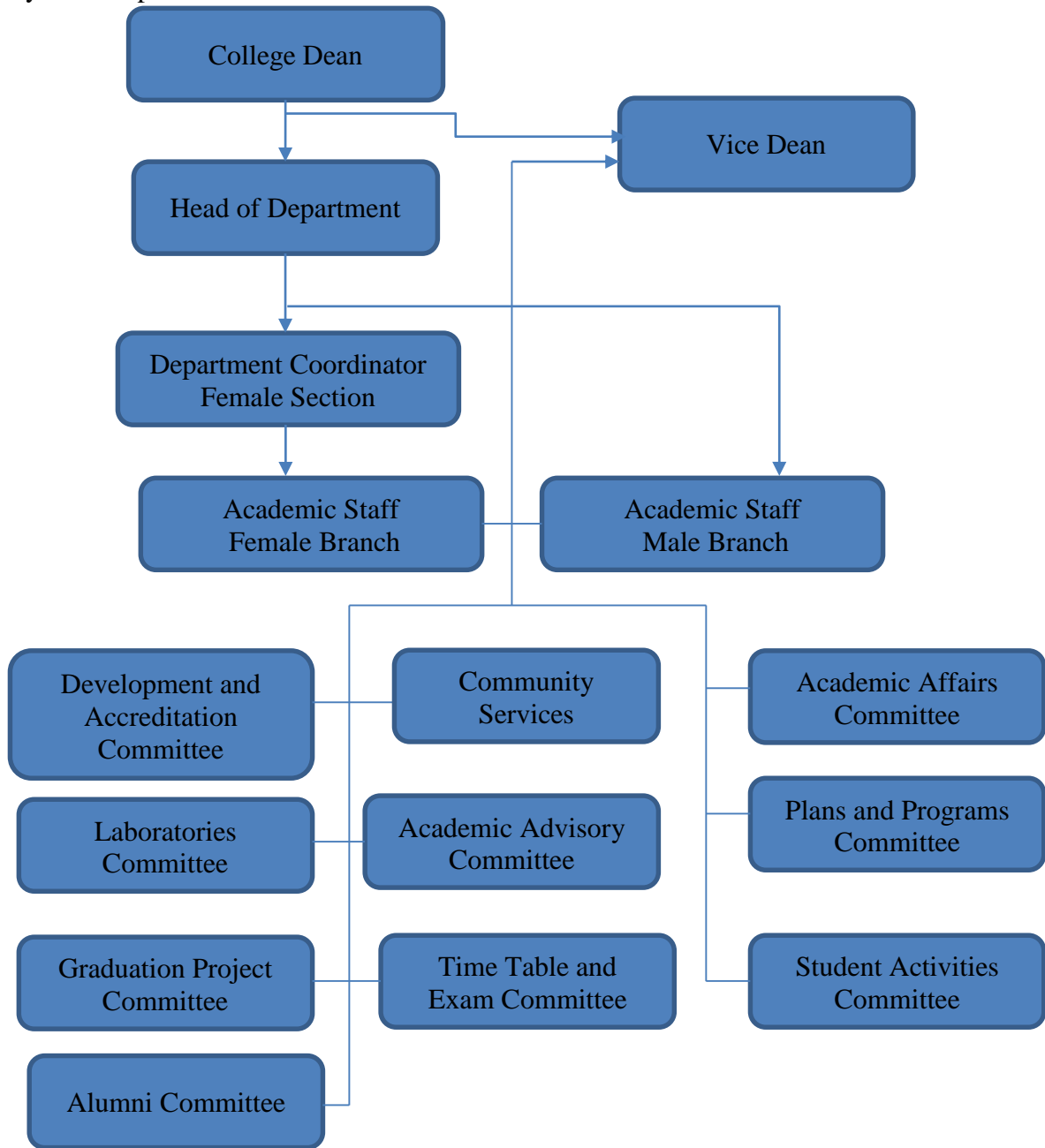
## **G. Program Management and Regulations**

### **1. Program Management**

#### **1.1 Program Structure**

(including boards, councils, units, committees, etc.)

The Program Management depends on the different committees and units of the Information Systems department.



## 1.2 Stakeholders Involvement

Describe the representation and involvement of stakeholders in the program planning and development. (students, professional bodies, scientific societies, alumni, employers, etc.)

The program stakeholders are those who must be satisfied with the performance of the IS program. The significant groups of stakeholders of the IS program include but not limited to faculty, students, alumni and employer and most importantly to the program Industrial Advisory Committee:

Faculty: IS faculty members are involved on regular basis in the assessment processes.

Students: Current IS students are interested in whether the IS program adequately prepares them for future employment.

**Alumni:** This group consists of recent graduates who have been employed for most two years. They should have the incentives to assess the quality of PEOs based on their career achievements.

**Employers** (government, industry and universities): Employers' satisfaction with our students' education provides measure of the program success. Their satisfaction translates to employment opportunities for our students.

**Industrial Advisory Committee (IAC):** This group plays a major role in program evaluation, advising, improvement, and development. Because of the closeness of the three programs, namely Information Systems, Computer Science and Computer Engineering and Networks, a common Industrial Advisory Committee to the whole college was established with prominent managerial as well as technical members of the computational communities. Our IAC includes five members from the industry and five faculty members.

The major roles of this group are:

1. To guide the program to meet future needs.
2. To develop strong partnership and relationship between the department and the program by some collaborative tasks.
3. To provide advice for development of the curricula
4. To suggest the required amendment to meet the potential job market.

## 2. Program Regulations

Provide a list of related program regulations, including their link to online version: admission, study and exams, recruitment, appeals and complaint regulations, etc.)

The program regulations are the same as those of the Jouf University, they are available in the following link:

• Students Discipline Regulations	• <a href="#">Evidence link</a>
• Students Rights and Obligations	• <a href="#">Evidence link</a>
• Students Complaints Regulations	• <a href="#">Evidence link</a>
• Study and Exams Regulations	• <a href="#">Evidence link</a>

## H. Program Quality Assurance

### 1. Program Quality Assurance System

Provide online link to quality assurance manual

<https://drive.google.com/file/d/18WvSe5xuIn0dskFM58NI8r0ahuv1LiQv/view?usp=sharing>

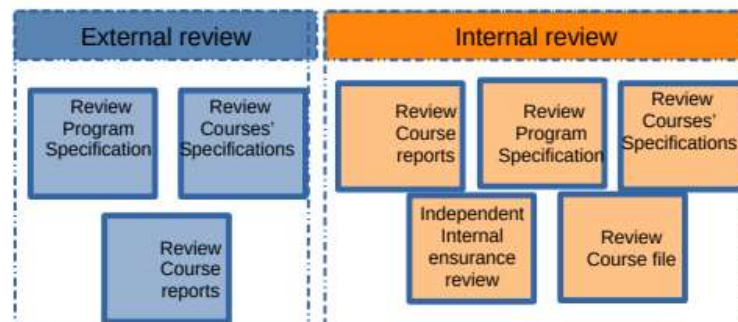
### 2. Program Quality Monitoring Procedures

- 1- Preparing the program Specification once at the beginning of the plan
- 2- Preparing course Specification, taking into consideration the correlation of course Specification with the mission and goals of the program.
- 3- Preparing the course report every semester. Improvements and additions to course Specification can be made based on the feedback from the course report in each semester.
- 4- Preparing the program report annually, improvements and amendments can be made to the Courses and Program Specification based on the feedback from the program report annually.



5 At the end of the five year, a self-study report for the program is prepared, and the program's mission, goals, learning outcomes of program to development are reviewed.

To assure that the assessment methods are appropriate and consistent with the specific learning outcomes and learning strategies, the IS program adopts a reviewing process, The figure below summaries the different reviews that are carried out to the IS program in terms of internal and external review process:



**Internal and external review process of the IS program**

In addition, the review process is designed to ensure objective and constructive assessments regarding the quality of the programs and to meet the following objectives:

- monitor the degree to which students are achieving learning outcomes;
- to improve methods of delivering education, indicating program strengths, and ensuring the rigor of documentation;
- determine how the quality of the program can be increased;
- provide guidance to the faculty and make administrative decisions to support continuous future improvement.

The main procedures adopted are:

1. Revise course specification, taking into consideration the correlation of course specification with the mission and goals of the program.
2. Revise the course report every semester. Improvements and additions to course Specification can be made based on the feedback from the course report in each semester.
3. Revise the program report periodically by conducting periodic program report reviews. The purpose of program review is to systematically evaluate all the aspects of academic programs, including curriculum, program outcomes, academic services, policies and resources, the competitive and market environment, and stakeholder perceptions of the program. This program review helps to ascertain strengths and weaknesses in these areas and propose changes and improvements as deemed essential.
4. Program specifications is periodically reviewed by program revision team and consideration must be given to representing them according to certain guidance.
5. At the end of the five year, a self-study report for the program is prepared, and the program's mission, goals, learning outcomes are reviewed, for program development.



In addition, the Deanship of Quality and Academic Accreditation, is conducting an external audit to verify that educational processes in the IS program are consistent with the NCAAA requirements. External quality reviews of institutions and accreditation of programs will give particular attention to the adequacy of mechanism for verification of standards of student achievement.
<b>3. Arrangements to Monitor Quality of Courses Taught by other Departments.</b>
1- The courses Specifications that are taught through other scientific departments are accordance with the program Specification, and taking correlation of these programs Specification with the mission and goals of the program. 2- Program management is provided with Courses reports taught through other scientific departments. Improvements and additions to course Specification can be made based on feedback from the course report in each semester 3- Visiting
<b>4. Arrangements Used to Ensure the Consistency between Main Campus and Branches</b> (including male and female sections)
1- Preparing the course report for all the courses in a grouped manner, in which the male and female students and the branches are explained every semester. 2- Preparing the program report in a grouped manner in which the male and female students are explained annually. 3- Preparing the performance indicators report for the program. 4- Preparing an improvement plan to achieve Consistency between the two parts. 5- Monitoring and follow-up. 6- Working together in IS program committees 7- teaching the same course specifications
<b>5. Arrangements to Apply the Institutional Regulations Governing the Educational and Research Partnerships</b> (if any).
Not Applicable
<b>6. Assessment Plan for Program Learning Outcomes (PLOs), and Mechanisms of Using its Results in the Development Processes</b>
1- Learning outcomes are measured at the program level annually by direct method (all kinds of tests) and indirect method (questionnaires). 2- Calculating performance indicators of learning outcomes annually. 3- Based on the results of measuring learning outcomes and performance indicators of learning outcomes, an improvement and development plan that is applied in the following year has been prepared and a report of this plan is written in the program report for the following year (appendices).

## 7. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Leadership	students, graduates, alumni, faculty Staff, administrative staff, employers,	Surveys	End of Academic year
Achievement of Graduate Attributes	Graduates/Graduating Students Employers	Capstone project Alumni Survey PES Survey Employers Survey	According to the Approved Assessment Plan
Program Learning Outcomes Achievement	Students Alumni	Rubrics CLO Assessment Program Survey Alumni Survey	According to the Approved Assessment Plan
Course Learning Outcomes	Students	CLO assessment using grade-based Rubrics. Course Evaluation Survey	Once per semester
Effectiveness of Students' Learning Experience in a Program	Students	Program Evaluation Survey	Once per academic year
Effectiveness of Students' learning Experience in a program	Students	Course Evaluation Survey	Once per academic year
Graduate attributes	Alumni	Alumni Survey	Once per academic year
Graduate attributes	Employers	Employers Survey	Once per academic year
Students' skills	Field Supervisors	Field Supervisor Survey	Once per academic year
learning resources	students, graduates, alumni, faculty Staff,	Surveys	End of Semester

**Evaluation Areas/Aspects** (e.g., leadership, effectiveness of teaching & assessment, learning resources, partnerships, etc.)

**Evaluation Sources** (students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, and others (specify))

**Evaluation Methods** (e.g., Surveys, interviews, visits, etc.)

**Evaluation Time** (e.g., beginning of semesters, end of academic year, etc.)

## 8. Program KPIs\*

The period to achieve the target (5) year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1	KPI-P-01	Percentage of achieved indicators of the program operational plan objectives	90%	Program Operational Plan	End of Year.
2	KPI-P-02	Students' Evaluation of quality of learning experience in the program	4.5	Surveys	First and Second Term.
3	KPI-P-01	Students' evaluation of the quality of the courses	5	Surveys	First and Second Terms.
4	KPI-P-04	Completion rate	70%	Reports of Academic System	End of Academic Year
5	KPI-P-05	First-year students retention rate	98%	Reports of Academic System	End of Academic Year
6	KPI-P-06	Students' performance in the professional and/or national examinations.	NA	NA	NA
7	KPI-P-07	Graduates' employability and enrolment in postgraduate programs.	50% 25%	Reports from Alumni Unit	End of Academic Year
8	KPI-P-08	Average number of students in the class.	10	Reports of Academic System	End of Academic Year
9	KPI-P-09	Employers' evaluation of the program graduates proficiency	5	Surveys	First and Second Terms.
10	KPI-P-10	Students' satisfaction with the offered services	5	Surveys	First and Second Terms.
11	KPI-P-11	Ratio of students to teaching staff	10:1	Reports from Deanship of Teaching Staff Affairs	End of Academic Year
12	KPI-P-12	Percentage of teaching staff distribution	B: 70% Assist.P : 60% Assoc. P:20% Prof. 20%	Reports from Deanship of Teaching Staff Affairs	End of Academic Year
13	KPI-P-13	Proportion of teaching staff leaving the program	0%	Reports from Deanship of Teaching Staff Affairs	End of Academic Year
14	KPI-P-14	Percentage of publications of faculty members	80%	Reports from Scientific Research Unit	End of Academic Year
15	KPI-P-15	Rate of published research per faculty member	5	Reports from Scientific Research Unit	End of Academic Year
16	KPI-P-16	Citations rate in refereed journals per faculty member	20	Reports from Scientific Research Unit	End of Academic Year
17	KPI-P-17	Satisfaction of beneficiaries with the learning resources	4	Surveys	First and Second Terms.

The table in the sequel describes the additional KPIs used by the Information Systems Program.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
Add 1	ADD KPI-P-01	Number of research groups in the program	2	Scientific research reports	End of Academic Year
Add 2	ADD KPI-P-02	Number of funded research projects in the program	5	Scientific research reports	End of Academic Year
Add 3	ADD KPI-P-03	The percentage of students participating in extra-curricular activities	20%	Advising unit reports	End of Academic Year
Add 4	ADD KPI-P-04	Employers' satisfaction about program vision, mission and goals	3.5	Surveys	End of Academic Year
Add 5	ADD KPI-P-05	Percentage of the student's graduation projects related to the surrounding community	25%	Graduation unit reports	End of Academic Year

\* including KPIs required by NCAAA

## I. Specification Approval Data

Council / Committee	INFORMATION SYSTEMS DEPARTMENT COUNCIL
Reference No.	DEPARTMENT COUNCIL N 13
Date	17/07/1442