

Information Technology (IT) -2024

Program name	Information Technology (IT)
Degree of specialization (BA, Diploma)	Bachelor Degree
Department	Information Technology
Faculty	Information Technology
Head of the department	Dr. Jamil Itmazi, Email: j.itmazi@paluniv.edu.ps

1. About the Program

Information technology has become an essential tool in the acquisition of knowledge and an essential foundation for the successful operation of an institution. It is one of the most prominent resources in the modern era, for which many people have come to depend on. Information technology is responsible for the production, storage and distribution of information required to compete, make informed decisions, and to increase efficiency and overall performance. This program provides a bachelor degree in Information Technology with a study plan of 133 Credit Hours (Cr.H.) distributed between theoretical and practical courses.

The academic plan of this program has been prepared according to American universities who are accredited by Accreditation Board for Engineering and Technology (ABET).

2. The required hours (Cr.H.) of the bachelor's degree in program

University		Faculty		Program		Free	Total
Compulsory	Elective	Compulsory	Elective	Compulsory	Elective		
24	3	22	0	69	9	6	133

3. Admission requirements in IT program

Admission requirements:

All Tawjihi students from Scientific, Industrial, and IT streams with minimum score of 65% (or based on minimum score conditions set by the ministry of Education & Higher Education) are eligible for the program. Students from the Tawjihi social stream with minimum score of 80% are also eligible to join this program.

Continuation requirements:

- I) Students wishing to continue their studies in the program must maintain a minimum grade of 1.67 (or 70%) in the following courses:
- Fundamentals of Computers & Programming (410131).
 - Introduction to Information Technology (410132).
 - Computer Programming (410104).
- II) Secure department approval. In case the number of applicants is higher than allocated places, students are accepted based on their average in the above 3 courses in addition to other university courses.

4. Intended Learning Outcomes:

Graduates are expected to have:

1. Knowledge and experience in all topics related to information technology and computer science, such as programming languages, databases, software engineering, web design and programming, etc.
2. Ability to develop innovative technological solutions to the problems facing the community based on the tools and techniques in the information technology field.
3. Ability to analyze, design and develop computer systems based on software engineering life cycles and rules.
4. Ability to develop systems and software using different programming languages such as C++, Java, etc.
5. Ability to design and develop websites using technologies such as ASP.NET and PHP.
6. Ability to develop database systems using Oracle, SQL server, etc.
7. Ability to solve administrative problems using technology.
8. Ability to work within a team.

5. Work fields

Names of potential places of employment	Possible functional title
<ol style="list-style-type: none"> 1. Educational institutions, 2. Higher education institutions, 3. Computer programming companies, 4. IT companies, 5. Private sector (banks, telecom companies, hospitals, Internet service providers, etc.), 6. Public institutions (government ministries). 	<ol style="list-style-type: none"> 1. Teacher and Research Assistant, 2. IT Lab Assistant/Technician, 3. Administrative employee, 4. Programmer, 5. Systems Analyst and Software Engineer, 6. Web Application Developer, 7. IT Program Manager.

6. Components of the Study Plan.

First: University Requirements (27 Cr.H.), including the following:

A. University Compulsory Requirements (24) Cr.H.

B. University Elective Requirements (3) Cr.H.

A. University Compulsory Requirements (24) Cr.H., Including the following:

CNUM *	Course Name	Number of Cr.H.			Pre-requisites
		Total	Lecture	Lab.	
110100	Remedial Arabic **	0	0	-	-
110101	Arabic Language Skills I	3	3	-	-
110102	Arabic Language Skills II	3	3	-	Arabic Language Skills I (110101)
112101	Physical Education	1	1	-	-
113200	Palestinian Cause	3	3	-	-
120100	Remedial English ***	0	0	-	-
120101	English Language Skills I	3	3	-	-
120102	English Language Skills II	3	3	-	English Language Skills I (120101)
130300	Community Service	1	1	-	-
151102	Islamic Culture	3	3	-	-
410131	Fundamentals of Computers & Programming	3	3	0	-
410211	Critical Thinking Skills	1	1	-	-
Total 24 Credit hours					

* Note: CNUM stands for “Course Number”.

** Mandatory requirement for students who failed the Arabic language abilities test.

*** Mandatory requirement for students who failed the English language abilities test.

B. University Elective Requirements (3) Cr.H., including the following:

CNUM	Course Name	Number of Cr.H.			Pre-requisites
		Total	Lecture	Lab.	
110104	Library Science	3	3	-	-
120104	French Language	3	3	-	-
120105	Italian Language	3	3	-	-
120106	Spanish Language	3	3	-	-
120208	Hebrew	3	3	-	-
141210	Geography of Palestine	3	3	-	-
142211	Arab World & Contemporary Challenges	3	3	-	-
210260	Law in our Life	3	3	-	-
210270	Democracy, Human Rights and International Humanitarian Law	3	3	-	-
510111	First Aid	3	3	-	-
510121	Introduction to Health Care	3	3	-	-
540102	Nutrition Science	3	3	-	-
651101	Family System in Islam	3	3	-	-
651105	Prophetic Biography (Analytical Studies)	3	3	-	-
Total 3 Credit hours					

Second: Faculty compulsory requirements (22 C. Hs):

CNUM	Course Name	Number of Cr.H.			Pre-requisites
		Total	Lecture	Lab.	
110200	Life Skills	3	3	-	-
310100	Principles of Management	3	3	-	-
410104	Computer Programming	3	3	-	Introduction to Information Technology (410132)
410105	Computer Programming Lab	1	-	1	In conjunction with Computer Programming (410104)

410132	Introduction to Information Technology	3	3	-	-
410147	Statistics and Probability	3	3	-	-
410202	Entrepreneurship & Creativity	3	3	-	Life skills (110200)
410204	Research Methodologies	3	3	-	Statistics and Probability (410147)
Total		22 Cr.H.			

Third: Department Requirements (78) Cr.H.: including the following:

A. Department Compulsory Requirements (69) Cr.H.:

B. Department Elective Requirements (9) Cr.H.:

A. Department Compulsory Requirements (69) Cr.H., including the following:

CNUM	Course Name	Number of Cr.H.			Pre-requisites
		Total	Lecture	Lab.	
410140	Remedial Calculus ***	0	-	0	-----
410141	Calculus I	3	-	3	-----
410203	Computer Logic Design	3	-	3	Discrete Math (410292)
410220	Advanced Computer Programming	3	-	3	Computer Programming (410104)
410221	Advanced Computer Programming Lab	-	1	1	In conjunction with Advanced Computer Programming (410220)
410222	Data Structures	3	-	3	Computer Programming (410104)
410223	Data Structures lab	-	1	1	In conjunction with Data Structures (410222)
410224	Design and Analysis of Algorithms	3	-	3	Data Structures (410222)
410292	Discrete Math	2	-	2	Calculus I (410141)
410321	Object-Oriented Programming	3	-	3	Computer Programming (410104)
410322	Object-Oriented Programming lab	-	1	1	In conjunction with Object Oriented Programming (410321)

410323	Visual Programming	3	-	3	Object-Oriented Programming 410321
410325	Database Management Systems	3	-	3	Data Structures (410222)
410331	Operating Systems	3	-	3	Data Structures (410222) Introduction to Networks (420132)
410333	Software Engineering	3	-	3	Data Structures (410222)
410390	Practical Training	-	3	3	Third Year
410423	Mobile Application Development	3	-	3	Visual Programming (410323)
410424	Mobile Application Development Lab	-	1	1	In conjunction with Mobile Application Development (410423)
410426	Databases Programming	3	-	3	Database Management Systems (410325)
410428	Database Programming Lab	-	1	1	In conjunction with Database Programming
410432	Web Application Development	-	1	1	Web Application Design (420234)
410434	Web Application Development Lab	1	-	3	In conjunction with Web Application Development (410432)
410448	Computer Graphics	3	-	3	Object Oriented Programming (410321)
410461	Principles of Artificial Intelligence	3	-	3	Data Structure (410222)
410471	Information Systems Security	3	-	3	Introduction to Networks (420132)
410488	Introduction to Graduation Project	1	-	1	Software Engineering (410333)
410489	Graduation Project	3	-	3	Introduction to Graduation Project (410488)
420132	Introduction to Networks	3	-	3	Introduction to Information Technology (410132)
420234	Web Application Design	3	-	3	Introduction to Networks (420132)
Total		69 Cr.H.			

*** is given to students from the Tawjihi social stream who obtain an average of at least 80% and are enrolled in the IT program.

B. Elective Requirements: (9) Credit Hours

CNUM	Course name	Num. of Cr.H.			Prerequisites
		Cr.H.	P.H	Total	
310307	Organizational Behavior	3	-	3	Principles Of Management (310100)
320100	Principles of Accounting I	3	-	3	-
410126	Open-Source Software	3	-	3	Introduction to Information Technology (410132)
410142	Calculus II	3	-	3	Calculus I (410141)
410293	Information Technology Systems Management	3	-	3	Introduction to Information Technology (410132)
410347	E-Commerce	3	-	3	Design Of Internet Applications (420234)
410429	Special Topics in Information Technology	3	-	3	
410430	Distributed Databases	3	-	3	Database Programming (410426)
410433	Advanced Software Engineering	3	-	3	Software Engineering (410333)
410449	Virtual Reality	3	-	3	Computer Drawing (410448)
410450	Multimedia	3	-	3	Visual Programming (410323)
410462	Expert Systems and Decision Support Systems	3	-	3	The Fourth Year
410463	Geographical Information Systems	3	-	3	The Fourth Year
410474	Distributed Systems	3	-	3	Operating Systems (410331)
420102	Ethics in the Information Age	3	-	3	-
420242	Introduction to E-Learning	3	-	3	Introduction To Information Technology (410132)
420332	Advanced Computer Networks	3	-	3	Introduction to Networks (420132)
430101	Management Information Systems	3	-	3	Principles Of Management (310100) Introduction To Information Technology (410132)
430404	Information Retrieval Systems	3	-	3	Database Management Systems (410325)
440449	Human Computer Interaction	3	-	3	Programming Entities (410321)
Total		9 Cr.H.			

7. Practical Training (3 Cr.H.)

Practical training is typically offered after year three. Students are exposed to real digital production, digital presses and books, advertising and game design and developing environments through work-based learning by training at least 140 hours over the course period.

At the end of the training each student submits a written report summarizing their work during training as well as makes a presentation in front of the department's members.

8. Graduation Projects / Research:

Graduation projects, class projects, and research projects are implemented in the Living Lab, where students are presented with real IT case studies in order to provide the community with technological solutions to various IT and business problems. The Living Lab is located within the Faculty of IT.

9. Educational Facilities to Support Educational Learning

○ Facilities and laboratories:

* **Computer labs:** There are seven labs in the University:

- **Computer Lab 1:** Main building, 1st floor with 30 PCs
- **Computer Lab 2:** Main building, 3rd floor with 22 PCs
- **Computer Lab 3:** Law faculty, 3rd floor with 22 PCs
- **Computer Lab 4:** Main building, 4th floor with 20 PCs
- **Computer Lab 5:** Building of Engineering and IT college, 2nd floor with 25 PCs
- **Computer Lab 6:** Building of Engineering and IT college, 2nd floor with 30 PCs
- **Living Lab** where students perform labour market related business challenges in transform solution to IT products or services. Graduation projects are also implemented in the Living lab. There are 30 modern PCs.

** **Facilities and Auxiliary Units:**

❖ **E-Learning Center:**

The studying system at the university is based on Cr.H. Supported by the blended learning. An E learning center was established at the university in 2009. For more information about eLearning center services please visit the following link: (<http://eclass.paluniv.edu.ps>).

❖ **E-library:**

The university website has an E-library gate which provides the following facilities:

- ✓ Online Searching and Reservations.
- ✓ Access to open-source references, files and e-books.
- ✓ Connection to international libraries related to the faculty's specializations.

❖ **The University website has an electronic portal (<https://portal.paluniv.edu.ps>) which enables:**

- ✓ The students to register online.
- ✓ The students to see their marks, program information, and any other academic information.
- ✓ Communication and information exchange between the University Colleges and Departments.
- ✓ The academic supervisors to follow up on the student's registration status and academic issues.

Annual Indicative Plan

First Year

First semester			Second semester		
CNUM	Course name	Cr.H.	CNUM	Course name	Cr.H.
110101	Arabic Language Skills I	3	110102	Arabic Language Skills II	3
120101	English Language Skills I	3	112101	Physical Education	1
151102	Islamic Culture	3	120102	English Language Skills II	3
310100	Principles of Management	3	410104	Computer programming	3
410131	Fundamentals of Computers & Programming	3	410105	Computer Programming Lab	1
410140	Mathematics Upgrading	0	410132	Introduction to Information Technology	3
-	-	-	410141	Calculus I	3
Total		15	Total		17

Second Year

First semester			Second semester		
CNUM	Course name	Cr.H.	CNUM	Course name	Cr.H.
-	University Elective Requirement	3	-	-	-
113200	Palestinian Cause	3	110200	Life skills	3
130300	Community Service	1	410147	Statistics and Probability	3
410211	Critical Thinking Skills	1	410203	Computer Logic Design	3
410222	Data Structures	3	410220	Advanced Computer Programming	3
410223	Data Structures Lab	1	410221	Advanced Computer Programming Lab	1
410292	Discrete Math	2	410224	Design and Analysis of Algorithms	3
420132	Introduction to Networks	3	-	-	-
Total		17	Total		16

Third Year

First semester			Second semester		
CNUM	Course name	Cr.H.	CNUM	Course name	Cr.H.
-	Elective Department Requirement	3	-	Elective Department Requirement	3
410202	Entrepreneurship & Creativity	3	410321	Object Oriented Programming	3
410204	Research Methodologies	3	410322	Object Oriented Programming Lab	1
410323	Visual Programming	3	410325	Database Management Systems	3
410333	Software Engineering	3	410331	Operating Systems	3
420234	Web Applications Design	3	410390	Practical Training	3
Total	18			16	

Fourth Year

First semester			Second semester		
CNUM	Course name	Cr.H.	CNUM	Course name	Cr.H.
-	Free Requirement	3	-	Free Requirement	3
-	Elective Department Requirement	3	-	-	-
410426	Database Programming	3	410423	Mobile Application Development	3
410428	Database Programming Lab	1	410424	Mobile Application Development Lab	1
410432	Web Application Development	3	410461	Principles of Artificial Intelligence	3
410434	Lab Programming and Web Development	1	410471	Confidentiality and Security of Information Systems	3
410448	Computer Graphics	3	410489	Graduation Project	3
410488	Introduction to Graduation Project	1	-	-	-
Total	18			16	