Philadelphia University

Private Accredited University



Study Plan for Bachelor Degree in Software Engineering (132 Credit Hours)

Faculty of Information Technology

Department of Software Engineering

(2026/2027)

First: University Requirements (27 Credit Hours)

A. Mandatory University Requirements (18 Credit Hours)

Course Code	Course Title	Theory	Practical	Mode	Credit Hours	Prerequisite
11600200	Military Sciences *	3	0	E	3	—
11610100	National Education	3	0	E	3	—
11610200	Leadership, Innovation, and Entrepreneurship Skills	3	0	E	3	—
11610300	Communication Skills (Arabic Language)	3	0	F	3	11609900
11610700	Communication Skills (English Language 1)	3	0	F	3	11609800
11610800	Communication Skills (English Language 2)	3	0	F	3	11610700
11610900	Voluntary Community Service	0	0	E	0	—

*The grade for the Military Science course is included in the calculation of the cumulative GPA. Mandatory for Jordanian students and optional for non-Jordanian students.

B. Elective University Requirements (9 Credit Hours)

Course Code	Course Title	Theory	Practical	Mode	Credit Hours	Prerequisite
11611600	Personal and Professional Skills	3	0	B	3	Department Approval
11611700	Financial and Economic Literacy	3	0	B	3	Department Approval
11611100	Language Skills (1) – European or Asian Languages	3	0	B	3	—
11611200	Language Skills (2) – European or Asian Languages	3	0	B	3	11611100
11611300	Language Skills (3) – European or Asian Languages	3	0	B	3	011611200 or 011610800
21611300	Sustainable Development and the Environment	3	0	B	3	Department Approval

** Registration for the practical training course is subject to the faculty's instructions.

All major modules include at least 25% Practical work, Tutorial, Lab., and Assignment

All students must take the exam in Arabic, English, and computer skills. Any student who fails this exam (less than 50%) must successfully pass the remedial subject in which they failed.

Second: Faculty Requirements (15 Credit Hours)

Course Code	Course Title	Theory	Practical	Mode	Credit Hours	Prerequisite
21611000	Discrete Mathematics	3	0	F	3	—
21611200	Introduction to Information Systems and Technology	3	0	E	3	—
21620600	Ethics and Technical Writing in IT	3	0	E	3	75011800
21620300	Digital Logic Design	3	0	F	3	21611200
21620400	Introduction to Web Programming	2	0	F	2	75011600
21620500	Web Programming Lab	0	2	F/Lab	1	Co-requisite with 021620400

Third: Major Requirements (90 Credit Hours)

A. Mandatory Major Requirements (81 Credit Hours)

Course Code	Course Title	Theory	Practical	Mode	Credit Hours	Prerequisite
72122600	Object-Oriented Programming	2	0	F	2	0216099 + 0750116
72122700	Object-Oriented Programming Lab	0	2	F/Lab	1	Co-requisite with 072122600
75011600	Programming Fundamentals (1)	2	0	F	2	—
75011700	Programming Fundamentals (1) Lab	0	2	F/Lab	1	Co-requisite with 075011600
75011800	Programming Fundamentals (2)	2	0	F	2	75011600
75011900	Programming Fundamentals (2) Lab	0	2	F/Lab	1	Co-requisite with 075011800
75021600	Visual Programming	2	0	F	2	721226
75021700	Visual Programming Lab	0	2	F/Lab	1	Co-requisite with 075021600
21612400	Introduction to Probability & Statistics (1)	3	0	B	3	—
75032300	Algorithms	3	0	F	3	72122800
75033500	Operating Systems	3	0	F / PBL	3	72135000
75034000	Fundamentals of Computer Networks	3	0	F / PBL	3	72122800
25024200	Linear Algebra for Artificial Intelligence and Data Science	3	0	B	3	21611100
21611100	Calculus (1)	3	0	F	3	—
72111100	Software Engineering Fundamentals	3	0	B	3	21611200
72122800	Data Structures	2	0	F	2	72122600
72122900	Data Structures Lab	0	2	F/Lab	1	Co-requisite with 072122800
72123300	Software Modeling	2	0	F	2	72111100
72123400	Software Modeling Lab	0	2	F/Lab	1	Co-requisite with 072123300
72123000	Software Requirements	3	0	F / PBL	3	72111100
75026100	Database Fundamentals	2	0	F	2	72122600
75026200	Database Fundamentals Lab	0	2	F/Lab	1	Co-requisite with 075026100
72132000	Software Architecture	3	0	B / PBL	3	72123300
72134500	Mobile Computing Technology	3	0	B / PBL	3	750261
72132200	Systems Analysis and Design	3	0	B / PBL	3	721230
72135200	Database Systems Management	2	0	F	2	75026100
72135300	Database Systems Management Lab	0	2	F/Lab	1	Co-requisite with 072135200
72135000	Computer Organization and Architecture	3	0	Blended	3	21620300
72142500	Software Development and Documentation	3	0	F / PBL	3	72132200
72133100	Software Project Management	3	0	B / PBL	3	721322
72142600	Web Software Engineering	2	0	F/ PBL	2	21620400
72142700	Web Software Engineering Lab	0	2	F/Lab	1	Co-requisite with 072142600
72141000	Secure Software Construction	3	0	B / PBL	3	72142500
72143300	Software Testing	3	0	B / PBL	3	72132200
72143400	Practical Training **	0	3	F	3	90 Hours
72144800	Research Project (1)	0	1	F	1	90 Hours
72144900	Research Project (2)	0	2	F	2	72144800

B. Elective Major Requirements (9 Credit Hours)

Course Code	Course Title	Theory	Practical	Mode	Credit Hours	Prerequisite
72143900	Special Topics in Software Engineering	3	0	B / PBL	3	72132200
74145500	Big and Visual Data	3	0	B / PBL	3	75034000
72142300	Graphical User Interface Design	3	0	B / PBL	3	72132200
72132900	Mobile Application Development	3	0	B / PBL	3	72134500
74132300	Artificial Intelligence for Cybersecurity	3	0	B / PBL	3	75021600
74141600	Internet of Things	3	0	B / PBL	3	72134500

Symbol	Meaning
E	Electronic course
F	Face-to-face course
B	Blended course
Lab	Fully laboratory-based course
PBL	Project-Based Learning course