American University of Madaba
www.aum.edu.jo
Faculty of Information Technology
Department of Computer Science
Course Curriculum 134 Credit Hours

AUM

I: University Requirements: 25 Credit Hours

A. Remedial Requirements (0 Credit Hours): Students must sit for placement tests in English, Arabic, and Computer. Students who fail any of these tests are required to take the corresponding remedial course 0900099, 0900097, or 0900096, respectively.

B. University Compulsory Course Requirements: 12 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab	
0900101	Sports (1)	1	0	3	-
0900103	Swimming	1	0	2	-
0900110	Cultural Development (1)	1	0	2	-
0900111	Military Science*	3	3	0	-
0900130	English Communication Skills (1)	3	3	0	0900099**
0900131	English Communication Skills (2)	3	3	0	0900130

* Non-Jordanian students may take a university elective course instead.
** Or passing the placement test.

C. University Elective Course Requirements: 13 Credit Hours

Humanities: 7 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab	
0900113	Interpersonal and Intercultural Communication	3	3	0	-
0900117	Civic Awareness	3	3	0	-
0900120	Arabic Communication Skills	3	3	0	0900097*
0900140	Appreciation of Art	3	3	0	-
0900141	Appreciation of Music	3	3	0	-
0900163	Modern life skills	3	3	0	-
0900164	Creativity and Innovation	3	3	0	-
0900201	Sports (2)	1	0	3	0900101
0900202	Sports (3)	1	0	3	0900201
0900210	Cultural Development (2)	1	0	2	0900110
0900211	Cultural Development (3)	1	0	2	0900210

* Or passing the placement test.

Social and Economic Sciences: 3 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab	
0900114	Civilization and Thought	3	3	0	-
0900115	Social Ethics	3	3	0	-
0900150	Introduction to Economics*	3	3	0	-
0900160	Entrepreneurship and Enterprises	3	3	0	-

* Not for Business and Finance Students

Science, Technology, Agriculture and Health: 3 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab	
0900116	Bio-Ethics	3	3	0	-
0900170	Energy and the Environment	3	3	0	-
0900171	Science and Society	3	3	0	-
0900180	Computer Skills*	3	2	2	0900096**

* Not for Information Technology Students.
** Or passing the placement test.

II. Faculty Requirements: 21 Credit Hours

Compulsory Requirements: 21 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab.	
0903101	Calculus (1)	3	3	0	-
0903102	Calculus (2)	3	3	0	0903101
0904101	General Physics (1)	3	3	0	-
0904102	General Physics (2)	3	3	0	0904101
0401121	Programming Fundamentals	3	2	2	
0401151	Introduction to Information Systems	3	3	0	-
0401153	Technology and Global Issues	3	3	0	-

III. Department Requirements: 82 Credit Hours

A. Compulsory Requirements: 70 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab.	
0401111	Discrete Structures	3	3	0	-
0401122	Object Oriented Programming Language	3	2	2	0401121
0401211	Theory of Computation	3	3	0	0401111
0401212	Data Structures	3	3	0	0401121
0401223	Advanced Object Oriented Programming and GUI	3	3	0	0401122
0401224	OO and GUI Laboratory	1	0	2	0401223*
0401231	Digital Logic Design	3	3	0	0401151
0401241	Networks and Data Communications	3	3	0	0401151
0401251	Database Fundamentals	3	2	2	0401212
0401313	Principles of Computer Algorithms	3	3	0	0401212
0401314	Fundamentals of Artificial Intelligence	3	3	0	0401313
0401315	Principles of Computer Graphics	3	3	0	0401111+0401122
0401321	Web-Based Programming and Applications	3	2	2	0401223
0401324	Programming Languages Concepts	3	3	0	0401223
0401331	Computer Architecture	3	3	0	0401231
0401332	Operating Systems Concepts	3	3	0	0401331
0401342	Computer Security	3	3	0	0401241
0401343	Wireless Networks	3	3	0	0401241
0401355	System Analysis and Design	3	3	0	0401251
0401423	Computer Networking Programming	3	2	2	0401241+0401223
0401451	Software Engineering Concepts	3	3	0	0401355
0401453	Database Management Systems	3	2	2	0401355
0401491	Graduation Project	3	-	-	Department Approval+ Completion of 99 cr. hrs.
0401492	Practical Training	3	-	-	Department Approval+ Completion of 90 cr. hrs.

B. Electives Requirements: 6 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab.	
0401318	Genetic Algorithms and Neural Networks	3	3	0	0401314
0401333	Introduction to Distributed Systems	3	3	0	0401241
0401433	Compilers Design	3	3	0	0401211+ 0401324
0401436	Parallel Processing	3	3	0	0401331
0401447	Advanced Computer Networks	3	3	0	0401241
0401454	Special Topics in Computer Science	3	3	0	Department Approval

C. Ancillary Requirements: 6 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab.	
0903281	Probability and Statistics	3	3	0	-
0903381	Numerical Analysis	3	3	0	0903102

(*) denotes that the prerequisite must be taken concurrently.

IV. Free Electives: 6 Credit Hours

Students may choose any course(s) offered by the University in accordance with University regulations.