



جامعة عجمان
AJMAN UNIVERSITY

College of Engineering and Information Technology

Information Technology Program

Program Structure

The B.Sc. degree in Information Technology/ Networking and Security (ITNS) requires the completion of 123 credit hours distributed according to the following plan:

Type of Courses	Credit Hours
1. University General Education Courses	
(a) University Compulsory Courses	18
(b) University Elective Courses	12
2. Information Technology Program Common Compulsory Courses	
(a) Information Technology Core Courses	63
(b) Internship	3
3. Information Technology Program Concentration Courses	18
4. Information Technology Program Elective Courses	9
Total Credit Hours	123

Program Courses

University General Education Courses

(a) University Compulsory Courses (18 Cr. Hrs.)

Course No.	Course Title	Th.	Lab.	Tut.	Cr. Hrs.	Prerequisite
ARB113	Arabic Written Expression	3	0	0	3	-
ARB116	Arabic as a Foreign Language for Non-Arabs					
INN311	Innovation & Entrepreneurship	3	0	0	3	-
ISL114	Islamic Culture	3	0	1	3	-
ISL112	Islamic Culture in English for Non-Arabs	3	0	0		
STA114	Statistics (Science)	2	2	0	3	-
EMS112	Emirates Studies	3	0	0	3	-
ENG114	Advanced English Writing	3	0	0	3	-

(b)University Elective Courses (12 Cr. Hrs.)

Course Code	Course Title	Th.	Lab.	Tut.	Cr. Hrs.	Prerequisite
1. Humanities / Arts (3 Credit Hours)						
ART111	Introduction to Art	3	0	0	3	-
ART112	Introduction to Aesthetics (English)	3	0	0	3	-
ART113	Introduction to Performing Arts	3	0	0	3	-
FRE212	Francophone World Language & Culture	3	0	0	3	-
ISH211	Islamic Civilization	3	0	0	3	-
LAW262	Human Rights	3	0	0	3	-
WLT111	World Literature	3	0	0	3	-
2. Natural Sciences (3 Credit Hours)						
AST211	Astronomy	3	0	0	3	-
BIO111	General Biology	3	0	0	3	-
CHM111	General Chemistry	3	0	0	3	-
PHY111	General Physics	3	0	0	3	-
3. Social or Behavioral Sciences (6 Credit Hours)						
PSY111	General Psychology (English)	3	0	0	3	-
INF112	Media Culture	3	0	0	3	-
THI211	Critical Thinking	3	0	0	3	-
SSW111	Social Responsibility	3	0	0	3	-
LAW112	Works Ethics	3	0	0	3	-
LED111	Leadership and Team Building	3	0	0	3	-

Information Technology Program Common Compulsory Courses (66 Cr. Hrs.)

Course No.	Course Title	Th.	Lab.	Tut.	Cr. Hrs.	Prerequisite
INT100	Introductory Programming	2	2	2	3	-
INT101	Calculus for Information Technology	3	0	2	3	-
INT103	Information Technology in Business	3	0	0	3	-
INT201	Object Oriented programming	2	2	2	3	INT100
INT202	Discrete Mathematics	3	0	2	3	INT101
INT203	Computer Organization	3	0	0	3	INT103
INT205	Fundamentals of Data Communications and Networking	2	2	0	3	INT203
INT206	Fundamentals of Web Systems	2	2	0	3	INT201
INT209	Data Structures	3	0	2	3	INT201, INT202

Course No.	Course Title	Th.	Lab.	Tut.	Cr. Hrs.	Prerequisite
INT301	Operating Systems	2	2	0	3	INT203
INT302	Database Management Systems	2	2	0	3	INT201
INT303	Fundamentals of Information Security	3	0	0	3	INT205
INT305	Fundamentals of Software Engineering	3	0	0	3	INT209
INT306	Computer Ethics and Professional Practices	3	0	0	3	INT303
INT307	Information Technology Project Management	3	0	0	3	INT305
INT309	Cloud Computing	2	2	0	3	INT303
INT313	User Interface Design	3	0	0	3	INT305
INT322	Web Technologies	2	2	0	3	INT206
INT323	Big Data Analytics & Technologies	2	2	0	3	INT302
INT401	Information Technology Project	1	4	0	3	INT307
INT402	Information Technology Internship	16 weeks-Sector normal hours min 30 per week			3	90 Cr. Hrs.
INT430	Artificial Intelligence	2	2	0	3	INT302

Information Technology Program Concentration Specific Compulsory Courses

Networking and Security Concentration Compulsory Courses (18 Cr. Hrs.)

Course No.	Course Title	Th.	Lab.	Tut.	Cr. Hrs.	Prerequisite
INT311	Advanced Computer Networks	2	2	0	3	INT205
INT312	Network Security	2	2	0	3	INT303
INT414	Wireless Networks	2	2	0	3	INT311
INT419	Network Design and Management	2	2	0	3	INT311
INT432	Ethical Hacking	2	2	0	3	INT312
INT436	Cybersecurity Operations & Analytics	2	2	0	3	INT312

Information Technology Program Elective Courses (9 Credit Hours)

Course No.	Course Title	Th.	Lab.	Tut.	Cr. Hrs.	Prerequisite
INT207	Multimedia Technology	2	2	0	3	INT100
INT321	Database Administration	2	2	0	3	INT302
INT403	Selected Topics in Information Technology	3	0	0	3	INT307
INT405	Knowledge-Based Systems	2	2	0	3	INT305
INT406	Computer Modeling and Simulation	2	2	0	3	INT201
INT413	Network Operating Systems	2	2	0	3	INT301
INT416	Data Compression	2	2	0	3	INT303
INT417	Distributed Systems	3	0	0	3	INT311
INT422	Information Architecture	2	2	0	3	INT302
INT426	Knowledge Management	3	0	0	3	INT302

Course No.	Course Title	Th.	Lab.	Tut.	Cr. Hrs.	Prerequisite
INT427	Advanced Web Topics	2	2	0	3	INT322
INT429	Mobile Applications	2	2	0	3	INT301, INT302
INT421	Web Applications Design & Development	2	2	0	3	INT322
INT423	Advanced Database Design & Implementation	2	2	0	3	INT302
INT424	E-Commerce	2	2	0	3	INT322
INS307	Business Process Management	3	0	0	3	INT305
INS402	Business Intelligence and Data Warehousing	3	0	0	3	INT323

In addition, students registered in a particular concentration can choose one or more elective courses from other concentrations of the information technology program provided that the corresponding prerequisites of these courses are met.