University of Malta

Faculty of Information and Communication Technology

**Bachelor of Science in Information Technology (Honours) (Software Development)
(B.Sc. IT (Hons)(Melit.))**

(for courses commencing October 2016)

<u>**YEAR ONE**</u>

<u>**Semester**</u>   **1**

<u>**Compulsory Units**</u> (All students **must** register for this/these unit/s)

CIS1025	Information Systems	5 ECTS
CIS1100	Data Structures with Java Objects	5 ECTS
CIS1103	Computer Platforms and Applied Operating Systems	5 ECTS
CIS1109	Principles of Structured Development	5 ECTS
CIS1114	Introduction to C Programming	5 ECTS
CPS1002	Mathematics of Discrete Structures	5 ECTS
LIN1063	Academic Reading and Writing in English	2 ECTS
SOR0210	Data Treatment and Probability	2 ECTS

<u>**Semester**</u>   **2**

<u>**Compulsory Units**</u> (All students **must** register for this/these unit/s)

CIS1043	Introduction to Databases and Information Management	5 ECTS
CIS1054	Principles of Web Application Architecture	4 ECTS
CIS1104	Networking	5 ECTS
CIS1108	Introduction to Software Engineering	5 ECTS
CIS1117	Data Structures and Algorithms and Programming Paradigms	5 ECTS
SOR0220	Elementary Statistical Theory	2 ECTS

Requirement for regular progression to Year 2: 60 ECTS credits.

YEAR TWO

Students are required to register for *ALL* compulsory study-units (50 ECTS credits) and 10 ECTS credits from the elective study-units on offer during the year, for a total of 60 ECTS credits.

Year (This/these unit/s start/s in Semester 1 and continue/s in Semester 2)

Compulsory Units (All students **must** register for this/these unit/s)

CIS2205	Group APT for Software Development	10 ECTS	**(NC)**

Semester   1

Compulsory Units (All students **must** register for this/these unit/s)

CIS2103	Distributed Computing and Distributed Databases	5 ECTS
CIS2201	Object Oriented Programming (Java and C# for .NET Framework Platform)	5 ECTS
CIS2206	Software Engineering	5 ECTS
CIS2349	Exposure to Practical Aspects of the ICT Industry	5 ECTS
CPS2005	Formal Languages and Automata	5 ECTS

Elective Units Elective units are offered subject to availability and time-table constraints.

CIS2207	User Interface Design	5 ECTS
ICS2211	Foundations of Game AI	5 ECTS

Semester   2

Compulsory Units (All students **must** register for this/these unit/s)

CIS2055	Web Applications Architecture and Systems Development	5 ECTS
CIS2091	Practical Design and Implementation with DBMS	5 ECTS
ICS2210	Data Structures and Algorithms 2	5 ECTS

Elective Units Elective units are offered subject to availability and time-table constraints.

CIS2087	e-Business	5 ECTS
CIS2208	Mobile Computing	5 ECTS
CPS1012	Operating Systems and Systems Programming 1	5 ECTS
CPS2000	Compiler Theory and Practice	5 ECTS

Requirement for regular progression to Year 3: 60 ECTS credits.

YEAR THREE

Students are required to register for *ALL* compulsory study-units (35 ECTS credits) and 25 ECTS credits from the elective study-units on offer during the year, for a total of 60 ECTS credits.

Year (This/these unit/s start/s in Semester 1 and continue/s in Semester 2)

Compulsory Units (All students **must** register for this/these unit/s)

ICT3911	Final Year Project in Software Development	25 ECTS	**(NC)**

Semester   **1**

Compulsory Units (All students **must** register for this/these unit/s)

CIS3200	Research Topics in Software Development	5 ECTS
CPS3230	Fundamentals of Software Testing	5 ECTS

Elective Units Elective units are offered subject to availability and time-table constraints.

CIS3119	Software Engineering: Project Management	5 ECTS
CIS3186	Mobile Device Programming	5 ECTS
CIS3187	Business Intelligence	5 ECTS
CIS3189	Digital Forensics	5 ECTS
EBI3085	Entrepreneurship: Start-up your Innovative Business	5 ECTS

Semester   **2**

Elective Units Elective units are offered subject to availability and time-table constraints.

CIS3034	Scientific and Quantitative Aspects of Computer Information Systems	5 ECTS
CIS3042	Security, Quality and Risk Issues in I.S.	5 ECTS
CIS3105	Computer Graphics Applications	5 ECTS
CIS3111	Cloud Computing	5 ECTS
CIS3116	Emerging Technologies for Software Development	5 ECTS
CIS3117	Advanced Databases: Data Mining and Warehousing	5 ECTS
CIS3188	e-Learning Applications Development	5 ECTS
CIS3202	Security and Information Assurance	5 ECTS

Requirement for successful completion of Year 3: 60 ECTS credits.

Requirement for award of Bachelor of Science in Information Technology (Honours) (Software Development): 180 ECTS credits.

This programme of study is governed by 'The General Regulations for University Undergraduate Awards, 2004' and by the Bye-laws for the award of the Bachelor of Science in Information Technology (Honours) - B.Sc. IT (Hons) - under the auspices of the Faculty of Information and Communication Technology.