

Information Security Engineering Technology

SPECIALIZATION: Software Security - Diploma (HD)

Total Credits Hours: 111 C.H.

Year 1															
1st Semester					2nd Semester					Summer					
Description (Math and Sciences, Humanities, Engineering Technologyetc)					Description (Math and Sciences, Humanities, Engineering Technologyetc)					Description (Math and Sciences, Humanitiesetc)					
No.	Course	Pr-requisit	L	B	T	CH	CR	No.	Course	Pr-requisit	L	B	T	CH	CR
MATH1001	Precalculus (W.B.)		3	0	2	5	3	ICT1201	Object Oriented Programming in Java	ICT1101	2	2	1	5	3
ICT1001	Introduction to Programming & Problem Solving (W.B.)		2	2	0	4	3	ICT1202	Intro to Computer Networks						
ENGL1001	English Skills		3	0	2	5	0	MATH1011	Calculus I (W.B.)	MATH100	2	2	2	6	3
HUM1002	Emirates Society & Culture (W.B.)		3	0	2	5	3	ENGL1011	Academic English 1						
HUM1001	Islamic Culture (W.B.)		3	0	2	5	3	PHYS1011	Physics I (W.B.)						
ENG1011	Intro to Computer Electronics		2	2	2	6	3	PHYS1012	Physics 101P						
Total			16	4	12	32	15	Total			12	8	8	28	16

Year 2															
1st Semester					2nd Semester					Summer					
Description					Description					Description					
No.	Course	Pr-requisit	L	B	T	CH	CR	No.	Course	Pr-requisit	L	B	T	CH	CR
ICT2101	Discrete Mathematics	MATH11	3	0	2	5	3	ICT2201	Data Structure and Algorithms	ICT1201, ICT1203	2	2	1	5	3
NCS2101	Network Security	ICT1202	2	2	0	4	3	ICT2202	Operating Systems Security	ICT1203, ICT1301	2	2	0	4	3
ICT2102	Intro to Database Systems	ICT1202	2	2	0	4	3	SSD2201	Web Programming and Security	ICT1301, NCS2101	2	2	0	4	3
ENGL2011	Public Speaking (Blended L.)	ENGL14	1	0	2	3	1	ICT2201	Ethical Hacking and Pen. Testing	ICT1301, ICT1203	2	2	0	4	3
ENGL2012	Literature Review (Blended L.)	ENGL14	1	0	2	3	1	ISST2201	Applied Cryptography	ICT1301, ICT1203	2	2	0	4	3
ENGL2013	Report Writing (Blended L.)	ENGL14	1	0	2	3	1	ICT2203	Introduction to Software Security	ICT1201, ICT1301	2	2	0	4	3
ICT2103	Logic Design & Computer Organization	ENG102	2	2	1	5	3								
Total			12	6	9	27	15	Total			12	12	1	25	18

No.	Course	Pr-requisit	L	B	T	CH	CR
SSD2301	Secure Web Applications Development - OCT I	SSD2201	0	5	0	5	1
SSD2302	Secure Software design & implementation - OCT I	ICT2203	0	5	0	5	1
SSD2303	Web Application Security - OCT I	SSD2201	0	5	0	5	1
SSD2304	Ethical Hacking and Pen. Testing - OCT I	NCS2201	0	5	0	5	1
SSD2305	Secure Windows/Linux OS - OCT I	ICT2202	0	5	0	5	1
SSD2306	Client/Server Security Admin - OCT I	ICT2202	0	5	0	5	1
Total			0	30	0	30	6

Year 3															
1st Semester					2nd Semester					Summer					
Description					Description					Description					
No.	Course	Pr-requisit	L	B	T	CH	CR	No.	Course	Pr-requisit	L	B	T	CH	CR
SSD3101	Object Oriented Analysis and Design	ICT2203	2	2	0	4	3	SSD3201	Malware Analysis/Tools and Techniques	NCS2304	2	2	0	4	3
SSD3102	Mobile Programming and Security	ICT1201	2	2	0	4	3	SSD3204	Emerging Trends in Software Security						
SSD3104	Embedded Systems Secure Develop	ICT1201	2	2	0	4	3	SSD3203	Secure Database Development	ICT2102	2	2	0	4	3
NCS3104	Cloud Security	NCS210	2	2	1	5	3	SSD3203	Fundamentals of Digital Forensics	NCS2101	2	2	0	4	3
ISST3101	InfoSec Project Management (Blended L.)	ICT1301	2	0	0	2	2	SSD3205	Capstone Project						
Total			10	8	1	19	14	Total			9	12	0	21	15

No.	Course	Pr-requisit	L	B	T	CH	CR
SSD3301	Software Verification and Validation - OCT II	SSD3101	0	5	0	5	1
SSD3302	Database Programming and Security - OCT II	SSD3203	0	5	0	5	1
SSD3303	Software Vulnerability Assessment - OCT II	SSD3202	0	5	0	5	1
SSD3304	Practical Requirements Engineering - OCT II	ICT2203	0	5	0	5	1
SSD3305	Secure Mobile Applications Development - OCT II	SSD3102	0	5	0	5	1
NCS3306	Digital Forensics and Investigation - OCT II	NCS3203	0	5	0	5	1
Total			0	30	0	30	6

NOTES:

Pre-requisite for Calculus I (MATH-1011): placement exam>70%, or precalculus MATH100

Students can select their specialization at end of 2nd Semester of 2nd year