Abu Dhabi Polytechnic (ADPoly)

Information Security Engineering Technology

SPECIALIZATION: SSD - Higher Diploma (HD) - 2020 - v1.9

Total Credits Hours: 111 C.H.

Year 1

1st Semester

Description (Math and Sciences, Humanities, Engineering Technology ….etc.)

No.	Course	Pre-requisite	L	B	T	CH	CR
MATH1001	Precalculus (W.B.)	-	3	0	2	5	3
ICT1011	Introduction to Programming & Problem Solving (W.B.)	-	2	2	2	6	3
ENGL1001	English Skills	-	3	0	2	5	0
HUM1011	Islamic Culture (W.B.)	-	3	0	2	5	3
HUM1012	Emirates Society & Culture (W.B.)	-	3	0	2	5	3
PHYS1011	Physics I (W.B.)	co-req: MATH1001	3	0	2	5	3
PHYS1012	Physics I Lab	co-req: PHYS1011	0	2	0	2	1
Total			17	4	#	33	16

2nd Semester

Description (Math and Sciences, Humanities, Engineering Technology ….etc.)

No.	Course	Pre-requisite	L	B	T	CH	CR
ICT1201	Object Oriented Programming in Java	ICT1001	2	2	1	5	3
ICT1202	Intro to Computer Networks	ICT1001	2	2	1	5	3
MATH1010	Calculus I (W.B.)	MATH1001	2	2	2	6	3
ENGL1011	Academic English 1	-	3	0	2	5	3
ENG1011	Intro to Computer Electronics	PHYS1011, PHYS1012	2	2	2	6	3
Total			11	8	8	27	15

Summer

Description (Math and Sciences, Humanities ….etc.)

No.	Course	Pre-requisite	L	B	T	CH	CR
ICT1301	Fundamentals of Information Security	ICT1202	2	2	0	4	3
ENGL1012	Academic English 2	ENGL1011	3	0	2	5	3
Total			5	2	2	9	6

Year 2

1st Semester

Description

No.	Course	Pre-requisite	L	B	T	CH	CR
ICT2101	Discrete Mathematics	MATH1010	3	0	2	5	3
NCS2101	Network Security	ICT1202	2	2	0	4	3
ICT2102	Intro to Database Systems	ICT1201	2	2	0	4	3
ENGL2011	Public Speaking (Blended L.)	ENGL1012	1	0	2	3	1
ENGL2012	Literature Review (Blended L.)	ENGL1012	1	0	2	3	1
ENGL2013	Report Writing (Blended L.)	ENGL1012	1	0	2	3	1
ICT2103	Logic Design & Computer Organization	ENG1011	2	2	1	5	3
Total			12	6	9	27	15

2nd Semester

Description

No.	Course	Pre-requisite	L	B	T	CH	CR
ICT2201	Data Structure and Algorithms	ICT1201, ICT2101	2	2	1	5	3
ICT2202	Operating Systems Security	ICT2103, ICT1301	2	2	0	4	3
SSD2201	Web Programming and Security	ICT1301, ICT2102	2	2	0	4	3
NCS2201	Ethical Hacking and Pen. Testing	NCS2101	2	2	0	4	3
ISET2201	Applied Cryptography	ICT1301	2	2	0	4	3
ICT2203	Introduction to Software Security	ICT1201, ICT1301	2	2	0	4	3
Total			12	12	1	25	18

Summer

Description

No.	Course	Pre-requisite	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

Description

No.	Course	Pre-requisite	L	B	T	CH	CR
SSD3101	Object Oriented Analysis and Design	ICT2203	2	2	0	4	3
SSD3102	Mobile Programming and Security	ICT1201 AND ICT1301	2	2	0	4	3
SSD3104	Embedded Systems Secure Devlp	ICT1201 AND ICT2103	2	2	0	4	3
NCS3104	Cloud Security	NCS2101	2	2	1	5	3
ISET3101	InfoSec Project Management (Blended L.)	ICT1301	2	0	0	2	2
Total			10	8	1	19	14

2nd Semester

Description

No.	Course	Pre-requisite	L	B	T	CH	CR
SSD3201	Malware Analysis:Tools and Techniques	SSD2304, SSD2201	2	2	0	4	3
SSD3204	Emerging Trends in Software Security		2	2	0	4	3
SSD3203	Secure Database Development	ICT2102	2	2	0	4	3
NCS3203	Fundamentals of Digital Forensics	NCS2101	2	2	0	4	3
SSD3205	Capstone Project		1	4	0	5	3
Total			9	12	0	21	15

Summer

Description

No.	Course	Pre-requisite	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 (MATH1010): placement exam>70%, or precalculus MATH1001

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