Abu Dhabi Polytechnic (ADPoly)

Information Security Engineering Technology

SPECIALIZATION: NCS - Applied Bachelor (AB) - 2020 - v1.9

Total Credits Hours = 142 C.H.

Year 1

1st Semester — ISET-Y1S1

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	12	33	13

2nd Semester — ISET-Y1S2

No.	Course	Pre-requisite	L	B	T	CH	CR
ICT1201	Object Oriented Programming in Java	ICT1011	2	2	1	5	3
ICT1202	Intro to Computer Networks	ICT1011	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 — ISET-Y1S3

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 — ISET-Y2S1

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 — ISET-Y2S2

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 — NCS-Y2S3

No.	Course	Pre-requisite	L	B	T	CH	CR
NCS2301	Routing and Switching - OCT I	ICT1202	0	5	0	5	1
NCS2302	Secure Network Design - OCT I	NCS2101	0	5	0	5	1
NCS2303	Network Security - OCT I	NCS2101	0	5	0	5	1
NCS2304	Ethical Hacking and Pen. Testing - OCT I	NCS2201	0	5	0	5	1
NCS2305	Web and Database Security- OCT I	NCS2101	0	5	0	5	1
NCS2306	Penetration Testing in-Depth - OCT I	NCS2201	0	5	0	5	1
	Total		0	30	0	30	6

Year 3

1st Semester — NCS-Y3S1

No.	Course	Pre-requisite	L	B	T	CH	CR
NCS3101	Fundamentals of Storage Networking	ICT1202	2	2	0	4	3
NCS3102	Wireless Network Security	NCS2101	2	2	0	4	3
NCS3103	Security Protocols in-depth	NCS2101, NCS2306	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 — NCS-Y3S2

No.	Course	Pre-requisite	L	B	T	CH	CR
NCS3201	Perimeter Protection	NCS2306	2	2	0	4	3
SSD3201	Malware Analysis:Tools and Techniques	NCS2304, SSD2201	2	2	0	4	3
NCS3202	Adv Pen Testing & Ethical Hacking	NCS2306	2	2	0	4	3
MATH2012	Probability and statistics	MATH1010	3	0	2	5	3
NCS3203	Fundamentals of Digital Forensics	NCS2101	2	2	0	4	3
	Total		11	8	2	21	15

Summer — NCS-Y3S3

No.	Course	Pre-requisite	L	B	T	CH	CR
NCS3301	Linux/Unix Security Administration (OCT-II)	ICT2202	0	5	0	5	1
NCS3302	Server Security Administration- OCT II	ICT2202	0	5	0	5	1
NCS3303	Advanced Routing and Switching- OCT II	NCS2301	0	5	0	5	1
NCS3304	Network Perimeter Protection- OCT II	NCS3201	0	5	0	5	1
NCS3305	Intrusion Detection & Response - OCT II	NCS3201	0	5	0	5	1
NCS3306	Digital Forensics and Investigation - OCT II	NCS3203	0	5	0	5	1
	Total		0	30	0	30	6

Year 4

1st Semester — NCS-Y4S1

No.	Course	Pre-requisite	L	B	T	CH	CR
HUM2011	Psychology	ENGL1012	3	0	2	5	3
HUM1013	Arabic Communication Skills (W.B.)	None	3	0	2	5	3
ISET4101	Risk and Security Management	ICT1301	2	0	0	2	2
NCS4101	Graduation Project I	See Notes below	1	4	0	5	3
NCSxxxx	Technical Elective I	See Major NCS Table					3
	Total		9	4	10	17	14

2nd Semester — NCS-Y4S2

No.	Course	Pre-requisite	L	B	T	CH	CR
ISET4201	Incident Handling and Response	ISET4101	2	2	0	4	3
HUM3011	Creativity, Innovation and Entrepreneurship	ENGL2013 or completion of 60 credit	3	0	0	3	3
ISET4202	Ethics,Law&Policy in Cyberspace (Blended L.)	ICT1301	2	0	0	2	2
NCS4201	Graduation Project II	NCS4101	1	4	0	5	3
NCSxxxx	Technical Elective II	See Major NCS Table					3
	Total		8	6	0	14	14

Summer — NCS-Y4S3

No.	Course	Pre-requisite	L	B	T	CH	CR
NCS4301	On Job Training (Internship)				1		6
	Total		0	0	1	0	6

NOTES:

- **NCSxxxx** — Network and Cyber Security Elective to be taken from ISET advanced courses after consultation with
- Pre-requisite for Calculus I (MATH1010): placement exam>70% , or precalculus MATH1001
- * MATH1001 - Number of credits (3) is not counted for Graduation requirements
- Students can select their specialization at end of 2nd Semester of 2nd year
- Pre-requisites for NCS4101 are: Completion of 100 credits and cGPA ≥ 2.0
- Pre-requisites for NCS4301: Completion of at least 110 credits

Major NCS-xxx) Technical Electives (6 credits)

Code	Course Title	PREREQ	L,B,T	CR
ISET4001	Homeland Security	NCS2201	2,2,0	3
ISET4002	Advanced Cryptography	ISET2201	2,2,0	3
ISET4003	Security Governance&Compliance	ICT1301	2,2,0	3
ISET4004	Security Architectures&Models	ICT1301	2,2,0	3
ISET4005	Privacy in a networked world	ICT1301	2,2,0	3
ISET4006	BlockChain Technology&Security	ISET2201	2,2,0	3

Major NCS-xxx) Technical Electives (6 credits)

Code	Course Title	PREREQ	L,B,T	CR
NCS4001	Hardware based Security	ICT1301	2,2,0	3
NCS4002	Wireless Ethical Hac.&Defense	NCS3102	2,2,0	3
NCS4003	Network Security Trends	NCS3201	2,2,0	3
NCS4004	Advanced network Security	NCS2101	2,2,0	3
SSD4002	Reverse Engineering	SSD3201	2,2,0	3
SSD4005	Advanced Web Security	SSD2201	2,2,0	3