

**CURRICULUM OF BACHELOR OF ENGINEERING IN
NETWORK ENGINEERING & SECURITY (BENES)**

===== YU-CCIS - Version 1 =====



STUDY PLAN BY SEMESTER NETWORK ENGINEERING & SECURITY

FIRST YEAR (Freshmen) (35 Credit Hours)

Course Code	Course Title	Pre-Req	L T	L B	C R	Course Code	Course Title	Pre-Req	L T	L B	C R
CIS 103	Programming Fundamentals I	CMP 002	3	2	4	CIS 104	Programming Fundamentals II	CIS 103	3	2	4
ENG 101	English Essay Writing	No	3	0	3	IS 102	Introduction to Information Systems	No	3	0	3
PHY 201	Introduction to Physical Science	No	3	0	3	PHY 103	Physics I (Mechanics)	PHY 201	3	2	4
MTH 104	Calculus I	MTH 001	3	0	3	STT 103	Probability & Statistics	MTH 001	3	0	3
ISL 101	Foundation of Islamic Culture	No	2	0	2	MTH 105	Discrete Mathematics	MTH 001	4	0	4
						ARB 102	Communication Skills in Arabic	No	2	0	2
TOTAL CREDIT HOURS			14	2	15	TOTAL CREDIT HOURS			18	4	20

SECOND YEAR (Sophomore) (34 Credit Hours)

Course Code	Course Title	Pre-Req	LT	LB	C R	Course Code	Course Title	Pre-Req	LT	LB	CR
CIS 201	Fundamental of Web Design	CIS 103	3	0	3	SWE 202	Introduction to Software Engineering	CIS 104	3	0	3
CIS 202	Data Structures	CIS 104	3	0	3	NES 212	Data Communications and Computer Networks	No	3	0	3
ENG 201	Technical Report Writing	ENG 101	3	0	3	ISL 201	Foundation of Islamic Economy	ISL 101	2	0	2
PHY 202	Physics II (EM+Electronics)	PHY 103	3	2	4	NES 221	Digital Logic and Design	No	3	2	4
MTH 211	Calculus II	MTH 104	4	0	4	IS 221	Introduction to Database Systems	CIS 104	3	0	3
						ARB 202	Writing Skills in Arabic	ARB 102	2	0	2
TOTAL CREDIT HOURS			16	2	17	TOTAL CREDIT HOURS			16	2	17

THIRD YEAR (Junior) (33 Credit Hours)

Course Code	Course Title	Pre-Req	LT	LB	C R	Course Code	Course Title	Pre-Req	LT	LB	C R
ISL 301	Work Ethics in Islam	ISL 201	2	0	2	CIS 321	Operating System	CIS 103	3	0	3
CIS 304	Computer Architecture	NES 221	3	0	3	CIS 386	Project Management	IS 102	3	0	3
MTH 301	Linear Algebra	MTH 001	3	0	3	NES 322	Signals and Systems	MTH 302	3	0	3
MTH 302	Differential Equations	MTH 211	4	0	4	NES 342	Wireless & Mobile Computing	NES 341	3	0	3
NES 341	Computer Networks	NES 212	3	2	4	CIS 351	Client Server Programming	CIS 104	3	0	3
						CIS 381	Computer Ethics	IS 102	2	0	2
TOTAL CREDIT HOURS			15	2	16	TOTAL CREDIT HOURS			17	0	17

Summer Session (3 Credit Hours)

Course Code	Course Title	Pre-Req	LT	LB	CR
CIS 493	Cooperative Assignment	90 Credit Hours	3		3
TOTAL CREDIT HOURS			3		3

FOURTH YEAR (Senior) 34 Credit Hours

Course Code	Course Title	Pre-Req	L T	L B	C R	Course Code	Course Title	Pre-Req	L T	L B	C R
CIS 491	Graduation Project I	90 CR.HR.	3	0	3	CIS 492	Graduation Project II	CIS 491	3	0	3
NES 423	Digital Comm Systems	NES 322	3	0	3	NES 482	Network Security	NES 341	3	2	4
NES 481	Security Policies & Procedure	NES 341	3	0	3	NES 483	Forensic and Incident Response	NES 481	3	0	3
NES 443	Enterprise Networking	NES 341	3	0	3		Free Elective II		3	0	3
	CIS Elective I		3	0	3		CIS Elective II		3	0	3
	Free Elective I		3	0	3						
TOTAL CREDIT HOURS			18	0	18	TOTAL CREDIT HOURS			15	2	16

GRAND TOTAL 139 CREDIT HOURS

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NES Elective (Any Two)

Course Code	Course Title	Pre-Requisite	LT	LB	CR
NES 444	Cloud Infrastructure and Services	NES 341			3
NES 445	Network Management	NES 341			3
NES 446	Selected Topics in Networking	NES 341			3
NES 484	Selected Topic in Network Security	NES 482			3
NES 447	Optical Networks	NES 341			3
NES 448	Network Modelling and Simulation	NES 341			3
NES 449	Broadband Communication and Networks	NES 341			3