



**OSUN STATE UNIVERSITY, OSOGBO,
NIGERIA**

**DEPARTMENT OF INFORMATION AND
COMMUNICATION TECHNOLOGY**

**FACULTY OF BASIC AND APPLIED
SCIENCES**

**COLLEGE OF SCIENCE, ENGINEERING AND
TECHNOLOGY**

**CURRICULUM
FOR**

B.Sc. CYBER SECURITY

B.Sc. (Hons) CYBER SECURITY Curriculum

100 Level Harmattan Semester

Course Code	Course Title	Units	Status
BIO 101	Basic Biology I	3	C
BIO 107	Experimental Biology I	1	C
CHM 101	General Chemistry I	3	C
CHM 107	Experimental Chemistry I	1	C
CYB 101	Fundamentals of Cyber Security I	2	C
MTH 101	General Mathematics I	3	C
PHY 101	General Physics I	3	C
PHY 107	Experimental Physics I	1	C
GNS 212/ CSC111	Introduction to Information & Communication Technology	2	R
GNS 101	Use of English I	2	R
GNS 103	Use of Library	1	R
GNS 211	Basic French	2	R
Total		24	

100 Level Rain Semester

Course Code	Course Title	Units	Status
CHM 102	General Chemistry II	3	C
CHM 108	Experimental Chemistry II	1	C
CSC 112	Introduction to Computer Programming	3	C
MTH 102	General Mathematics II	3	C
MTH 104	General Mathematics III	3	C
PHY 102	General Physics II	3	C
PHY 108	Experimental Physics II	1	C
GNS 102	Use of English II	2	R
GNS 104	Nigerian People and Culture	2	R
GNS 204	Logic and Philosophy	2	R
Total		23	

200 Level Harmattan Semester

Course Code	Course Title	Prerequisite	Units	Status
CSC 201	Structured Programming	-	3	C
CSC 203	Computer Architecture and Organization I	-	2	C
CSC 207	Discrete Structure	-	2	C
CSC 209	Data Management I	-	2	C
CYB 201	Fundamentals of Cyber Security II	CYB 101	2	C
CYB 203	Information Security Policy	CSC 112	2	C
MTH 203	Linear Algebra I	MTH 101	2	C
MTH 211	Mathematical Methods I	MTH 104	3	C
STA 221	Statistics for Physical Science & Engineering	-	3	C
GNS 203	Introduction to Entrepreneurial Skills		2	R
Total			23	

200 Level Rain Semester

Course Code	Course Title	Prerequisite	Units	Status
CSC 202	Low Level Language	-	3	C
CSC 206	Operating System I and Workshop Practice	-	2	C
CYB 202	System and Network Administration	CYB 201	3	C
CYB 204	Computer Communications Networks	CSC 111	3	C
CYB 206	Cybersecurity in Business and Industry	CSC 112	2	C
CYB 208	Fundamentals of Data Structures and Algorithms	-	3	C
CYB 210	Cyber Law	-	2	C
CYB 212	Introduction to Digital Forensics	-	2	C
CYB 214	Enterprise and Perimeter Security	-	2	C
Total			22	

300 Level Harmattan Semester

Course Code	Course Title	Prerequisite	Units	Status
CSC 301	Object Oriented Programming	-	3	C
CSC 303	Algorithms and Complexity Analysis	-	3	C
CYB 301	Software Defined Networks	CSC 201	2	C
CYB 303	Cryptographic Techniques	MTH 201, MTH 203	2	C
CYB 305	Biometrics Security	CYB 201	2	C
CYB 307	Information Security Engineering	CYB 203	2	C
CYB 309	Systems Security	CYB 201, CYB 202	2	C
CYB 311	Forensic Analysis	-	2	C
CYB 313	System/Object Oriented Analysis and Design Methodologies	-	2	C
Total			20	

300 Level Rain Semester

Course Code	Course Title	Units	Status
CYB 399	Industrial Attachment	6	C
Total		6	

400 Level Harmattan Semester

Course Code	Course Title	Prerequisite	Units	Status
CSC 401	Software Engineering	-	3	C
CSC 403	Artificial Intelligence	-	3	C
CYB 401	Systems Vulnerability Assessment and Testing	CYB 102, CYB 204	3	C
CYB 403	Cloud Computing Security	CYB 204	2	C
CYB 405	Information Disaster Recovery	CYB 307	2	C
CYB 407	VoIP and Multimedia Security	CYB 207	2	C
CYB 409	Enterprise Security and Information Assurance	CYB 207, CYB 301	2	C
CYB 411	Special Topics in Computing	-	2	C
CYB 497	Research Methodology/Seminar	-	1	C
Electives: At least 2 Units				
CYB 413	Security Strategies for Web Applications and Social Networks.	CYB 204	2	E
CYB 415	Threats, Exploits and Countermeasures	CYB 309	2	E
CYB 417	Application Security	-	2	E
Total			22	

400 Level Rain Semester

Course Code	Course Title	Prerequisite	Units	Status
CSC 402	Data Management II	CYB 309	3	C
CSC 420	Modeling and Simulation	-	2	C
CYB 402	Fault Tolerant Computing	CYB 102, CYB 204	2	C
CYB 404	Cryptography: Algorithms and Applications	CYB 303	3	C
CYB 406	Information Security Risk Analysis and Management	CYB 309	2	C
CYB 408	Ethical Hacking and Reverse Engineering	CYB 311	2	C
CYB 499	Research Project	-	6	C
Electives: At least 2 Units				
CYB 412	Information Security Models	-	2	E
CYB 414	Privacy in a Networked World	-	2	E
Total			22	