

Curriculum of M.Sc. in Cyber Security and Digital Forensics

<p style="text-align: center;">DEPARTMENT OF COMPUTER SCIENCE ALIGARH MUSLIM UNIVERSITY ALIGARH, U.P. – 202002 M. Sc. in Cyber Security and Digital Forensics (2021-2022) Curriculum Structure</p>							
COURSE NO.	PAPER TITLE	Type of Course	Periods Per Week (L+T)/(P+T)	Credits	Sessional Marks/ Continuous Evaluation	Final Marks	Total Marks
First Semester (w.e.f. January 2022)							
CSMS 1001	Introduction to Cyber Security & Cryptography	C	3+1	4	30	70	100
CSMS 1002	Problem Solving using C	C	3+1	4	30	70	100
CSMS 1003	Data Structure using Java	C	3+1	4	30	70	100
CSMS 1004	Database Management System	C	3+1	4	30	70	100
CSMS 1005	Computer Organization and Architecture	C	3+1	4	30	70	100
CSMS 1P01	Laboratory Course –I	C	4+2	4	40	60	100
	Total			24			600
Second Semester							
CSMS 2001	Data Communication & Computer Networks	C	3+1	4	30	70	100
CSMS 2002	Operating System & Shell Programming	C	3+1	4	30	70	100
OE	Open Elective**	OE	3+1	4	30	70	100
EL-1	Elective-I	E	3+1	4	30	70	100
EL-2	Elective-II	E	3+1	4	30	70	100
CSMS 2P01	Laboratory Course –II	C	4+2	4	40	60	100
	Total			24			600
Third Semester							
CSMS 3001	Cyber Crimes and Laws	C	3+1	4	30	70	100
CSMS 3002	Digital Forensics	C	3+1	4	30	70	100
CSMS 3003	Network and Cloud Security	C	3+1	4	30	70	100
EL-3	Elective-III	E	3+1	4	30	70	100
EL-4	Elective-IV	E	3+1	4	30	70	100
CSMS 3P01	Laboratory Course–III	C	4+2	4	40	60	100
	Total			24			600
Fourth Semester							
CAMS4491	Fundamentals of IT (Open Elective)***	OE	3+1	-	30	70	100
CSMS 4D01	Dissertation	C		12	40	60	100
CSMS 4R01	Research Paper Publication	A		12	40	60	100
	Total			24			200

*L - Lecture; *T - Tutorial; *P - Practical/Lab; *D - Dissertation/Project;

**Students of the department of Computer Science are required to opt any Open Elective course offered by other departments of faculty of Science, in Second Semester preferably Mathematics, Statistics & OR, GIS, etc.

***CSMS 4491 (Open Elective): Fundamentals of IT (For fourth semester students of Faculty of Science other than Computer Science.

Course Categories and Credits allotted

- The courses mentioned in above curriculum are of following categories.*

S. No.	Course Categories	Code	Credits Allotted
1	Core	C	64
2	Elective (Discipline Centric)	E	16
3	Ability Enhancement (Discipline Centric)	A	12
4	Ability Enhancement (Open elective)	OE	4
Total Credits			96

List of Electives

- Students are required to select one course from each set of electives (EL-1 to EL-4) offered by the department from time-to-time.*

Electives	Course No.	Paper Title	Course No.	Paper Title
EL-1 (Credit-4)	CSMS2E01	Advanced Cryptography	CSMS2E03	Security Systems Administration
EL-2 (Credit-4)	CSMS2E02	AI & Machine Learning	CSMS2E04	Web Applications Security
EL-3 (Credit-4)	CSMS3E01	Cyber Security in IoT	CSMS3E03	Network Forensics
EL-4 (Credit-4)	CSMS3E02	Blockchain Technology	CSMS3E04	Online Social Networks and Security

- Once the ‘Credit Transfer Scheme’ is adopted by the university and related regulations are framed & becomes operational, students may be allowed to opt for “SWAYAM MOOCs” courses in place of ‘Elective Courses’ as per the university regulations.*