Chhatrapati Shahu Institute of Business Education and Research Kolhapur

An Autonomous Institute under UGC, Government of India

College with Potential for Excellence (CPE) Phase III

Reaccredited by NAAC with 'A+' Grade, RUSA 2.0

School of Computer Science and Applications

M.Sc. Computer Science in Cyber Security

Programme Structure and Syllabus

To be implemented from the academic year 2026-27

Aligned with NEP 2020

Programme Structure

MSc CS in Cyber Security I - Level 6.0 - Semester I

Code	Course Title	Credits	Contact Hours	Internal Marks	Practical Marks	EOS Marks	Total Marks
CY101	Foundations of Cyber Security	4	60	40		60	100
CY102	Python Programming	4	60		40	60	100
CY103	Advanced Web Technologies	4	60		40	60	100
CY104	Operating Systems	4	60	40		60	100
CY105	Research Methodology	2	30	20		30	50
CY106	Soft Skill	2	30	20		30	50
CY107	Elective - I a. Cyber Laws, Ethics & Governance b. Secure Software Development	2	30	20		30	50
		22					**550**

MSc CS in Cyber Security I - Level 6.0 - Semester II

Code	Course Title	Credits	Contact Hours	Internal Marks	Practical Marks	EOS Marks	Total Marks
CY201	Cloud Computing	4	60	40		60	100
CY202	Data Security & RDBMS	4	60		40	60	100
CY203	Computer Networks	4	60		40	60	100
CY204	AI and ML	4	60	40		60	100
CY205	Information Security & Cryptography	2	30	20		30	50
CY206	Field Project	2	60	20		30	50
CY207	Elective - II a. Blockchain b. Internet of Things	2	30	20		30	50
		22					**550**

Exit option: PG Diploma (44 Credits) after successful completion of first year (Semester I and Semester II) of PG Degree

MSc CS in Cyber Security II - Level 6.5 - Semester III

Code	Course Title	Credits	Contact Hours	Internal Marks	Practical Marks	EOS Marks	Total Marks
CY301	Digital Forensics & Incident Response	4	60	40		60	100
CY302	Linux Administration	4	60		40	60	100
CY303	Ethical Hacking & Penetration Testing	4	60		40	60	100
CY304	Mobile and Wireless Security	4	60	40		60	100
CY305	Information System Audit	2	30	20		30	50
CY306	Mini Project and Viva	2	30	20		30	50
CY307	Elective-III a. Red/Blue Team Cyber Exercise b. SOC Operations & SIEM Tools	2	30	20		30	50
		22					**550**

MSc CS in Cyber Security II - Level 6.5 - Semester IV

Code	Course Title	Credits	Contact Hours	Internal	EOS Marks	Marks
MCS401	**Industry Project**	18	16 weeks			
	Project Documentation				100	100
	Presentation				100	100
	Evaluation by Industry				100	100
	Viva-Voce				100	100
MCS402	MOOC I	4	-	40	60	100
		22				**500**