



Institute of Advance Computing
Department Name: Advance Computing (Specialization)
CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure
Effective from Academic Session: 2024-25

Program		B.Tech (Computer Technology in Cyber Security & Forensic)							Program Code: B.Tech.(CT-CSF)								
Year / Semester		1st Year /1 Sem.							Admission Batch: 2024-25								
Subject wise Distribution of Marks and corresponding Credits																	
S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted						Hours/week					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio (50 Marks)			Total	L	T	P	SM			NTCC Studio/Field Work/outreach
				End Sem. Exam (ESE)	Continuous Internal Evaluation (CIE)		End Sem. Exam (ESE) For Practical and Viva	Lab Work/WPR	Continuous Internal								
					Mid Sem. Test (MST)	Unit Test/Attendance/Assignment/Activities				Lab Work/WPR	Attendance/Assignment/Viva/Lab Manual						
1	ACTDCLIA001T	DC	Linear Algebra	60	20	20	-	-	-	100	4	-	-		4	4	
2	ACTDCAPY002T	DC	Applied Physics	60	20	20	-	-	-	100	3	-	-		3	3	
3	ACTDCFAC003T	DC	Foundation to AI, Cyber Security, Ethics and Foundation of Data Analytics	60	20	20	-	-	-	100	3	-	-		3	3	
4	ACTDCIPR004T	DC	Introduction to Problem Solving & Reasoning	60	20	20	-	-	-	100	4	-	-		4	4	
5	TO BE SELECTED##	GE	General Elective-1 (one from offered university list)	60	20	20	-	-	-	100	2	-	-	4	4	6	
6	AECACCO001T	AECC	Communication Skills and Personality Development	60	20	20	-	-	-	100	3	-	-		3	3	
7	ACTDCAPY002P	DC	Applied Physics Lab	-	-	-	30	10	10	50	-	-	2		1	2	
8	ACTDCFAC003P	DC	Foundation to AI, Cyber Security, Ethics and Foundation of Data Analytics Lab	-	-	-	30	10	10	50	-	-	2		1	2	
9	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course-I	-	-	-	30	10	10	50	-	-	4		2	4	
10	AECACCO001P	AECC	Communication Skills Lab	-	-	-	30	10	10	50	-	-	2		1	2	
Total				360	120	120	120	40	40	800	19	0	10	4	0	26	33

List of Departmental Skill Enhancement Elective Course (DSEC- I)		
1	ACTDSPIC001P	Programming in C
2	ACTDSPYT002P	Programming in PYTHON
3	ACTDSWEP003P	Web Programming

General Elective ##(GE - 1) Offered by IAC for the students of other institutes) except IAC	
ACTGECOE001B**	Computer Basics & Office Essentials

Note: Industrial Internship I to be completed before start of V Semester, i.e. evaluation and credit to be added in V Semester.
 ## Students required to opt general elective from the Courses offered by other institutes under group 1 in GE category

HOD IAC



SAGE UNIVERSITY, INDORE
Institute of Advance Computing
Department Name: Advance Computing (Specialization)
CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure
Effective from Academic Session: 2024-25

Program	B.Tech (Computer Technology in Cyber Security & Forensics)	Program Code: B.Tech.(CT-CSF)
Year / Semester	1st Year /II Sem.	Admission Batch: 2024-25

Subject wise Distribution of Marks and corresponding Credits

S.No	Subject Code	Category	Subject Title	Maximum Marks Allotted						Hours / Week.					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)			Total	L	T	P	SM			NTCC Studio/Field Work/Outreach
				End Sem. Exam (ESE)	Continuous Internal Evaluation (CIE)		End Sem. Exam (ESE) For Practical and Viva	Continuous Internal Evaluation (CIE)									
					Mid Sem. Test (MST)	Unit Test/Attendance/Assignment/Activities		Lab Work/WPR	Attendance/Assignment/Viva/Lab Manual								
1	ACTDCCLE005T	DC	Calculus for Engineers	60	20	20	-	-	-	100	4	-	-	-	-	4	4
2	ACTDCDSS006T	DC	Data Structure and Complexity	60	20	20	-	-	-	100	3	-	-	-	-	3	3
3	ACTDCBEX007T	DC	Basic Electronics	60	20	20	-	-	-	100	4	-	-	-	-	4	4
4	ACTDEFCD002T	DC	Foundation to CS & Digital Forensic	60	20	20	-	-	-	100	3	-	-	-	-	3	3
5	TO BE SELECTED##	GE	General Elective-2 (one from offered university list)	60	20	20	-	-	-	100	2	-	-	4	-	4	6
6	AECACUHV001T	AECC	Universal Human Values and	60	20	20	-	-	-	100	2	0	0	-	-	2	2
7	ACTDCDSS006P	DC	Data Structure and Complexity Lab	-	-	-	30	10	10	50	-	-	2	-	-	1	2
8	ACTDEFCD002P	DC	Foundation to CS & Digital Forensic Lab	-	-	-	30	10	10	50	-	-	2	-	-	1	2
9	ACTDSXXXXXP	DSEEC	Departmental Skill	-	-	-	30	10	10	50	-	-	4	-	-	2	4
10	AECACUHV001N	AECC	Universal Human Values and Professional Ethics	-	-	-	-	20	30	50	0	0	0	-	4	2	-
11	ACTDPMIP001N	DAP	Micro Project-I	-	-	-	-	20	30	50	-	-	-	-	4	2	-
Total				360	120	120	90	70	90	850	18	0	8	4	8	28	30

§ List of Departmental Skill Enhancement Elective Course (DSEEC- II)		
1	ACTDSQHC004P	QH -Module 1 -Basics of C/C++
2	ACTDSOPJ005P	Object Oriented Programming using JAVA
3	ACTDSPHP006P	PHP Programming

General Elective ##(GE - 2) Offered by IAC for the students of other institutes except IAC)	
ACTGEPYP002B**	PYTHON Programming

Note: Industrial Internship 1 to be completed before start of V Semester, i.e. evaluation and credit to be added in V Semester.
 ## Students required to opt general elective from the Courses offered by other institutes under group 2 in GE category

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SAGE UNIVERSITY, INDORE
Institute of Advance Computing
Department Name: Advance Computing (Specialization)
CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure

Effective from Academic Session: 2024-25

Program		BTech (Computer Technology in Cyber Security & Forensic)						Program Code: B.Tech.(CT-CSF)									
Year / Semester		2nd Year / III Sem						Admission Batch: 2024-25									
Subject wise Distribution of Marks and corresponding Credits																	
S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted						Hours / Week.					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)			Total	L	T	P	SM			NTCC Studio/Field Work/o outreach
				End Sem. Exam (ESE)	Continuous Internal		End Sem. Exam (ESE) For Practical and Viva	Continuous Internal									
					Mid Sem. Test (MST)	Unit Test/Attendance/Assignment/Activities		Lab Work/WPR	Attendance/Assignment/Viva/Lab Manual								
1	ACTDCOSS009T	DC	Operating System & Security	60	20	20	-	-	-	100	3	0	0	-	-	3	3
2	ACTDCCLT010T	DC	Computation & Logical Thinking	60	20	20	-	-	-	100	4	0	0	-	-	4	4
3	ACTDEXXXXXXT	DE	Departmental Elective-I	60	20	20	-	-	-	100	3	0	0	-	-	3	3
4	ACTDEXXXXXXT	DE	Departmental Elective-II	60	20	20	-	-	-	100	4	0	0	-	-	4	4
5	TO BE SELECTED##	GE	General Elective-3 (one from offered)	60	20	20	-	-	-	100	2	-	-	4	-	4	6
6	AECACEVS001T	AECC	Environmental Science & Disaster	60	20	20	-	-	-	100	3	-	-	-	-	3	3
7	ACTDCOSS009P	DC	Operating System & Security Lab	-	-	-	30	10	10	50	0	0	2	-	-	1	2
8	ACTDEXXXXXXP	DE	Department Elective-I Lab	-	-	-	30	10	10	50	0	0	2	-	-	1	2
9	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course-III	-	-	-	30	10	10	50	0	0	4	-	-	2	4
10	AECACEVS001N	AECC	Environmental Science & Disaster Management Lab	-	-	-	-	20	30	50	-	-	-	-	2	1	2
Total				360	120	120	90	50	60	800	19	0	8	4	2	26	31

Departmental Electives (DE-I)		
1	ACTDESD001T/P	Digital System Design
2	ACTDENTF001T/P	Networking Tools and Fundamentals
DE - II		
3	ACTDECA003T	Cloud Architecture & Services
4	ACTDEDF004T	Discrete Mathematics & Foundation of Information Security

General Elective ##(GE - 3) Offered by IAC for the students of other institutes except IAC	
ACTGEFCC003B**	Fundamentals of Cloud Computing
S List of Departmental Skill Enhancement Elective Course (DSEEC-III)	
ACTDSUSP007P	Unix & Shell Programming
ACTDSPFC008P	Python for Cybersecurity

Note: Industrial Internship I to be completed before start of V Semester, i.e. evaluation and credit to be added in V Semester.
 ## Students required to opt general elective from the Courses offered by other institutes under group 3 in GE category

HOD IAC



SAGE UNIVERSITY, INDORE
Institute of Advance Computing
Department Name: Advance Computing (Specialization)
CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure

Effective from Academic Session: 2024-25

Program	BTech (Computer Technology in Cyber Security & Forensic)	Program Code: B.Tech.(CT-CSF)
Year / Semester	2nd Year / III Sem	Admission Batch: 2023-24

Subject wise Distribution of Marks and corresponding Credits

S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted						Hours / Week.					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)			Total	L	T	P	SM			NTCC Studio/Field Work/outreach
				End Sem. Exam (ESE)	Continuous Internal		End Sem. Exam (ESE) For Practical and Viva	Continuous Internal									
					Mid Sem. Test (MST)	Unit Test/Attendance/Assignment/Activities		Lab Work/WPR	Attendance/Assignment/Viva/Lab Manual								
1	ACTDCOSS009T	DC	Operating System & Security	60	20	20	-	-	-	100	3	0	0	-	-	3	3
2	ACTDCCLT010T	DC	Computation & Logical Thinking	60	20	20	-	-	-	100	4	0	0	-	-	4	4
3	ACTDEXXXXXXT	DE	Departmental Elective-I	60	20	20	-	-	-	100	3	0	0	-	-	3	3
4	ACTDEXXXXXXT	DE	Departmental Elective-II	60	20	20	-	-	-	100	4	0	0	-	-	4	4
5	TO BE SELECTED##	GE	General Elective-3 (one from offered)	60	20	20	-	-	-	100	2	-	-	4	-	4	6
6	ACTDCOSS009P	DC	Operating System & Security Lab	-	-	-	30	10	10	50	0	0	2	-	-	1	2
7	ACTDEXXXXXXP	DE	Department Elective-I Lab	-	-	-	30	10	10	50	0	0	2	-	-	1	2
8	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course-III	-	-	-	30	10	10	50	0	0	4	-	-	2	4
Total				300	100	100	90	30	30	650	16	0	8	4	0	22	28

Departmental Electives (DE-I)

1	ACTDESD001T/P	Digital System Design
2	ACTDEFCD001T/P	Foundation to CS and Digital Forensic
DE - II		
3	ACTDECAS003T	Cloud Architecture & Services
4	ACTDEDFI004T	Discrete Mathematics & Foundation of Information Security

General Elective ##(GE - 3) Offered by IAC for the students of other institutes except IAC)

ACTGEFCC003B**	Fundamentals of Cloud Computing
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S List of Departmental Skill Enhancement Elective Course (DSEEC-III)

ACTDSUSP007P	Unix & Shell Programming
ACTDSPFC008P	Python for Cybersecurity

Note: Industrial Internship I to be completed before start of V Semester, i.e. evaluation and credit to be added in V Semester.

Students required to opt general elective from the Courses offered by other institutes under group 3 in GE category

HOD IAC



SAGE UNIVERSITY, INDORE
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CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure
Effective from Academic Session: 2024-25

Program	B.Tech (Computer Technology in Cyber Security & Forensic)	Program Code: B.Tech.(CT-CSF)
Year / Semester	2nd Year / IV Sem.	Admission Batch: 2024-25

Subject wise Distribution of Marks and corresponding Credits																	
S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted						Hours / Week.						Credits	Credit Hours
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)			Total	L	T	P	SM	NTCC Studio/Field Work/o outreach		
				End Sem. Exam (ESE)	Continuous Internal		End Sem. Exam (ESE) For Practical and Viva	Lab Work/ WPR	Attendance/Assignment/ Viva/Lab Manual								
					Mid Sem. Test (MS T)	Unit Test/Attendance/ Assignment/ Activities											
1	ACTDCBS011T	DC	Relational Database Management System	60	20	20	-	-	-	100	3	0	0			3	3
2	ACTDCATC012T	DC	Automata Theory and Computability	60	20	20	-	-	-	100	4	0	0			4	4
3	ACTDEXXXXXXT	DE	Departmental Elective-III	60	20	20	-	-	-	100	3	0	0			3	3
4	ACTDEXXXXXXT	DE	Departmental Elective-IV	60	20	20	-	-	-	100	3	0	0			3	3
5	TO BE SELECTED##	GE	General Elective-4 (one from offered university list)	60	20	20	-	-	-	100	2	0	0	4		4	6
6	ACTDCBS011P	DC	Relational Database	-	-	-	30	10	10	50	0	0	2			1	2
7	ACTDEXXXXXXP	DE	Departmental Elective-III Lab	-	-	-	30	10	10	50	0	0	2			1	2
8	ACTDEXXXXXXP	DE	Departmental Elective-IV Lab	-	-	-	30	10	10	50	0	0	2			1	2
9	ACTDSXXXXXP	DSEEC	Departmental Skill	-	-	-	30	10	10	50	0	0	4			2	4
10	ACTDPMIP002N	DAP	Micro Project - II	-	-	-	-	20	30	50	0	0	0	4		2	-
Total				300	100	100	120	60	70	750	15	0	10	4	4	24	29

Departmental Electives (DE-III)			
1	ACTDEBCH006T/P		Blockchain
2	ACTDECNA006T/P		Computer Network & System Administration
Departmental Electives (DE - IV)			
3	ACTDESFE007T/P		Software Engineering
4	ACTDEQHD008T/P		Data Privacy & User Protection

General Elective ##(GE - 4) Offered by IAC for the students of other	
ACTGEFAI004B**	Fundamentals of Artificial Intelligence

\$ List of Departmental Skill Enhancement Elective Course (DSEEC- IV)	
ACTDSWDP009P	Windows Digital Investigation with PowerShell and Python
ACTDSADV010P	Advanced JAVA

Note: Industrial Internship I to be completed before start of V Semester, i.e. evaluation and credit to be added in V Semester.

Students required to opt general elective from the Courses offered by other institutes under group 4 in GE category



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CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure
Effective from Academic Session: 2024-25

Program		BTech (Computer Technology in Cyber Security & Forensic)						Program Code: B.Tech.(CT-CSF)									
Year / Semester		2nd Year / IV Sem.						Admission Batch: 2023-24									
Subject wise Distribution of Marks and corresponding Credits																	
S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted					Hours / Week.					Credits	Credit Hours		
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)		Total	L	T	P	SM			NTCC Studio/ Field Work/o outreach	
				End Sem. Exam (ESE)	Continuous Internal		End Sem. Exam (ESE) For Practical and Viva	Continuous Internal									
					Mid Sem. Test (MST)	Unit Test/Attendance/Assignment/Activity			Lab Work/ WPR	Attendance/Assignment/ Viva/Lab Manual							
1	ACTDCBS011T	DC	Relational Database Management System	60	20	20	-	-	-	100	3	0	0			3	3
2	ACTDCATC012T	DC	Automata Theory and Computability	60	20	20	-	-	-	100	4	0	0			4	4
3	ACTDEXXXXXXT	DE	Departmental Elective-III	60	20	20	-	-	-	100	3	0	0			3	3
4	ACTDEXXXXXXT	DE	Departmental Elective-IV	60	20	20	-	-	-	100	3	0	0			3	3
5	TO BE SELECTED##	GE	General Elective-4 (one from offered university list)	60	20	20	-	-	-	100	2	0	0	4		4	6
6	ACTDCBS011P	DC	Relational Database Management System Lab	-	-	-	30	10	10	50	0	0	2			1	2
7	ACTDEXXXXXXP	DE	Departmental Elective-III Lab	-	-	-	30	10	10	50	0	0	2			1	2
8	ACTDEXXXXXXP	DE	Departmental Elective-IV Lab	-	-	-	30	10	10	50	0	0	2			1	2
9	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course-IV	-	-	-	30	10	10	50	0	0	4			2	4
10	ACTDPMIP002N	DAP	Micro Project - II	-	-	-	-	20	30	50	0	0	0		4	2	-
Total				300	100	100	120	60	70	750	15	0	10	4	4	24	29

Departmental Electives (DE-III)			
1	ACTDECWP006T/P		Cryptography with Python
2	ACTDECNA006T/P		Computer Network & System Administration
Departmental Electives (DE - IV)			
3	ACTDESFE007T/P		Software Engineering
4	ACTDEQHD008T/P		Data Privacy & User Protection

General Elective ##(GE - 4) Offered by IAC for the students of other	
ACTGEFAI004B**	Fundamentals of Artificial Intelligence

\$ List of Departmental Skill Enhancement Elective Course (DSEEC- IV)	
ACTDSWDP009P	Windows Digital Investigation with PowerShell and Python
ACTDSADV010P	Advanced JAVA

Note: Industrial Internship 1 to be completed before start of V Semester, i.e. evaluation and credit to be added in V Semester.
 ## Students required to opt general elective from the Courses offered by other institutes under group 4 in GE category

HOD IAC



SAGE UNIVERSITY, INDORE
Institute of Advance Computing
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CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure

Effective from Academic Session: 2024-25

Program	B.Tech (Computer Technology in Cyber Security & Forensic)	Program Code: B.Tech.(CT-CSF)
Year / Semester	3rd Year / V Sem.	Admission Batch: 2024-25

Subject wise Distribution of Marks and corresponding Credits

S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted					Hours / Week.					Credits	Credit Hours		
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)		Total	L	T	P	SM			NTCC Studio/Field Work/ Outreach	
				End Sem. Exam (ESE)	Continuous Internal Evaluation (CIE)		End Sem. Exam (ESE) For Practical and Viva	Continuous Internal Evaluation (CIE)									
					Mid Sem. Test (MST)	Unit Test/Attendance/Assignment/Activities		Lab Work/WPR	Attendance/Assignment/Viva/Lab Manual	Total Marks							
1	ACTDCISS013T	DC	IOT System & Security	60	20	20	-	-	-	100	3	0	0		3	3	
2	ACTDEXXXXXXT	DE	Departmental Elective -V	60	20	20	-	-	-	100	3	0	0		3	3	
3	ACTDEXXXXXXT	DE	Departmental Elective -VI	60	20	20	-	-	-	100	3	0	0		3	3	
4	ACTDEXXXXXXT	DE	Departmental Elective -VII	60	20	20	-	-	-	100	3	0	0	0	3	3	
5	ACTDEXXXXXXT	DE	Departmental Elective -VIII	60	20	20	-	-	-	100	4	0	0		4	4	
6	ACTDCBCC001T	DC	Bitcoin and	60	20	20	-	-	-	100	4	-	-	0	4	4	
7	ACTDCISS013P	DC	IOT System & Security Lab	-	-	-	30	10	10	50	0	0	2		1	2	
8	ACTDEXXXXXXP	DE	Departmental Elective -V Lab	-	-	-	30	10	10	50	0	0	2		1	2	
9	ACTDEXXXXXXP	DE	Departmental Elective -VI Lab	-	-	-	30	10	10	50	0	0	2		1	2	
10	ACTDEXXXXXXP	DE	Departmental Elective -VII Lab	-	-	-	30	10	10	50	0	0	2		1	2	
11	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course - V	-	-	-	30	10	10	50	0	0	4		2	4	
12	ACTDSINT001N	DSEEC	Internship - I	-	-	-	-	20	30	50	0	0	0	4	2	-	
Total				360	120	120	150	70	80	900	20	0	12	0	4	28	32

Departmental Electives (DE-V)

1	ACTDECWP005T/P	Cryptography with Python
2	ACTDEDSA010T/P	Database Security & Access Control

DE - VI

3	ACTDEDBC011T/P	Distributed Computing
4	ACTDERAS012T/P	Routing and Switching Administration

DE - VII

5	ACTDECIW013T/P	Cyber Crime and Information Warfare
6	ACTDESTM014T/P	Security Threats and Modelling

\$ List of Departmental Skill Enhancement Elective Course (DSEEC- V)

ACTDSLNV012P	Linux and Virtualization
ACTDSPPG012P	Pig Programming
DE-VIII	
ACTDESOC027T	Secure Coding
ACTDEMAE028T	Malware Analysis and Reverse Engineering

Note: Industrial Internship II to be completed after VI semester and before start of VII Semester, i.e. evaluation and credit to be added in VII Semester.
 @Certification Program from the industry will be considered



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Program	BTech (Computer Technology in Cyber Security & Forensic)	Program Code: B.Tech.(CT-CSF)
Year / Semester	3rd Year / V Sem.	Admission Batch: 2022-23, 2023-24

S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted						Hours / Week.					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)			Total	L	T	P	SM			NTCC Studio/Field Work/outreach
				End Sem. Exam (ESE)	Mid Sem. Test (MST)	Unit Test/Attendance/Assignment/Activities	End Sem. Exam (ESE) For Practical and Viva	Lab Work/ WPR	Continuous Internal Evaluation (CIE)								
										Continuous Internal Evaluation (CIE)							
1	ACTDCISS013T	DC	IOT System & Security	60	20	20	-	-	-	100	3	0	0			3	3
2	ACTDEXXXXXXT	DE	Departmental Elective -V	60	20	20	-	-	-	100	3	0	0			3	3
3	ACTDEXXXXXXT	DE	Departmental Elective -VI	60	20	20	-	-	-	100	3	0	0			3	3
4	ACTDEXXXXXXT	DE	Departmental Elective -VII	60	20	20	-	-	-	100	3	0	0	0		3	3
5	ACTDEXXXXXXT	DE	Departmental Elective - VIII	60	20	20	-	-	-	100	4	0	0			4	4
6	ACTDCEHP001T	DC	Ethical Hacking and Penetration Testing	60	20	20	-	-	-	100	3	-	-	0		3	3
7	ACTDCISS013P	DC	IOT System & Security Lab	-	-	-	30	10	10	50	0	0	2			1	2
8	ACTDEXXXXXXP	DE	Departmental Elective -V Lab	-	-	-	30	10	10	50	0	0	2			1	2
9	ACTDEXXXXXXP	DE	Departmental Elective -VI Lab	-	-	-	30	10	10	50	0	0	2			1	2
10	ACTDEXXXXXXP	DE	Departmental Elective -VII Lab	-	-	-	30	10	10	50	0	0	2			1	2
11	ACTDCEHP001P	DC Lab	Ethical Hacking and Penetration Testing Lab	-	-	-	30	10	10	50	0	0	2			1	2
12	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course - V	-	-	-	30	10	10	50	0	0	4			2	4
13	ACTDSINT001N	DSEEC	Internship - I	-	-	-	-	20	30	50	0	0	0		4	2	-
Total				360	120	120	180	80	90	950	19	0	14	0	4	28	33

Departmental Electives (DE-V)

1	ACTDEMBF005T/P		Mobile Forensics
2	ACTDEDSA010T/P		Database Security & Access Control

DE - VI

3	ACTDEDBC011T/P		Distributed Computing
4	ACTDERAS012T/P		Routing and Switching Administration

DE - VII

5	ACTDECIW013T/P		Cyber Crime and Information Warfare
6	ACTDESTM014T/P		Security Threats and Modelling

\$ List of Departmental Skill Enhancement Elective Course (DSEEC- V)

ACTDSL VN012P	Linux and Virtualization
ACTDSPPG012P	Pig Programming
DE-VIII	
ACTDESOC027T	Secure Coding
ACTDEMAE028T	Malware Analysis and Reverse Engineering

Note: Industrial Internship II to be completed after VI semester and before start of VII Semester, i.e. evaluation and credit to be added in VII Semester.
 @Certification Program from the industry will be considered

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SAGE UNIVERSITY, INDORE
Institute of Advance Computing
Department Name: Advance Computing (Specialization)
CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure
Effective from Academic Session: 2024-25

Program	BTech (Computer Technology in Cyber Security & Forensic)	Program Code: B.Tech.(CT-CSF)
Year / Semester	3rd Year / VI Sem	Admission Batch: 2024-25

Subject wise Distribution of Marks and corresponding Credits																		
S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted							Hours / Week.					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)				Total	L	T	P	SM			NTCC Studio/Field Work/ outreach
				End Sem. Exam (ESE)	Continuous Internal Evaluation (CIE)		End Sem. Exam (ESE) For Practical and Viva	Continuous Internal Evaluation (CIE)		Total Marks								
					Mid Sem. Test (MST)	Unit Test/Attendance/Assignment/Activity		Lab Work/WPR	Attendance/Assignment/Viva/Lab Manual									
1	ACTDCDFS014T	DC	Data Recovery and Analysis	60	20	20	-	-	-	100	3	0	0			3	3	
2	ACTDEXXXXXXT	DE	Department Elective - IX	60	20	20	-	-	-	100	3	0	0			3	3	
3	ACTDEXXXXXXT	DE	Departmental Elective -X	60	20	20	-	-	-	100	3	0	0			3	3	
4	ACTDEXXXXXXT	DE	Departmental Elective - XI	60	20	20	-	-	-	100	4	0	0			4	4	
5	ACTDEXXXXXXT	DE	Departmental Elective - XII	60	20	20	-	-	-	100	4	0	0			4	4	
6	ACTDCDFS014P	DC	Data Recovery and Analysis Lab	-	-	-	30	10	10	50	0	0	2			1	2	
7	ACTDEXXXXXXP	DE	Departmental Elective - IX Lab	-	-	-	30	10	10	50	0	0	2			1	2	
8	ACTDEXXXXXXP	DE	Departmental Elective - X Lab	-	-	-	30	10	10	50	0	0	2			1	2	
9	ACTDSXXXXXP	DSEEC	Departmental Skill	-	-	-	30	10	10	50	0	0	4			2	4	
10	ACTDPMNP003N	DAP	Minor Project -I	-	-	-	-	40	60	150	0	0	0		12	6	-	
Total				300	100	100	120	80	100	850	17	0	10	0	12	28	27	

Departmental Elective (DE)		
DE-IX		
ACTDECLF015T/P		Cloud Forensic
ACTDEDPM016T/P		Data Mining & Predictive Modelling
DE-X		
ACTDECSE017T/P		Cyber security and Evidence procedure
ACTDEIFR018T/P		Information Retrieval

DE-XI	
ACTDEHC1019T	Human Computer Interaction
ACTDEIST020T	Information Security and Risk Management
DE-XII	
ACTDESSE021T	Secure System engineering
ACTDECSM022T	Cloud Security & Management

\$ List of Departmental Skill Enhancement Elective Course (DSEEC-	
ACTDSRPM013P	R - Programming
ACTDSAF014P	Advance Digital Forensic Tools

Note: Industrial Internship II to be completed after VI semester and before start of VII Semester, i.e. evaluation and credit to be added in VII Semester.

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SAGE UNIVERSITY, INDORE
Institute of Advance Computing
Department Name: Advance Computing (Specialization)
CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure
Effective from Academic Session: 2024-25

Program	B.Tech (Computer Technology in Cyber Security & Forensic)	Program Code: B.Tech.(CT-CSF)
Year / Semester	3rd Year / VI Sem.	Admission Batch: 2022-23, 2023-24

Subject wise Distribution of Marks and corresponding Credits

S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted						Hours / Week.					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)			Total	L	T	P	SM			NTCC Studio/Field Work/ Outreach
				Continuous Internal Evaluation (CIE)			End Sem. Exam (ESE) For Practical and Viva	Continuous Internal Evaluation (CIE)									
				End Sem. Exam (ESE)	Mid Sem. Test (MST)	Unit Test/Attendance/Assignment/Activity		Lab Work/WPR	Attendance/Assignment/Viva/Lab Manual	Total Marks							
1	ACTDCDFS014T	DC	Data Recovery and Analysis	60	20	20	-	-	-	100	3	0	0			3	3
2	ACTDEXXXXXXT	DE	Department Elective - IX	60	20	20	-	-	-	100	3	0	0			3	3
3	ACTDEXXXXXXT	DE	Departmental Elective -X	60	20	20	-	-	-	100	3	0	0			3	3
4	ACTDEXXXXXXT	DE	Departmental Elective - XI	60	20	20	-	-	-	100	4	0	0			4	4
5	ACTDEXXXXXXT	DE	Departmental Elective - XII	60	20	20	-	-	-	100	4	0	0			4	4
6	ACTDCDFS014P	DC	Data Recovery and Analysis Lab	-	-	-	30	10	10	50	0	0	2			1	2
7	ACTDEXXXXXXP	DE	Departmental Elective - IX Lab	-	-	-	30	10	10	50	0	0	2			1	2
8	ACTDEXXXXXXP	DE	Departmental Elective - X Lab	-	-	-	30	10	10	50	0	0	2			1	2
9	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course - VI	-	-	-	30	10	10	50	0	0	4			2	4
10	ACTDPMNP003N	DAP	Minor Project - I	-	-	-		40	60	150	0	0	0		12	6	-
Total				300	100	100	120	80	100	850	17	0	10	0	12	28	27

Departmental Elective (DE)		
DE-IX		
ACTDEAIS015T/P		Advanced Information Security
ACTDEDPM016T/P		Data Mining & Predictive Modelling
DE-X		
ACTDECSE017T/P		Cyber security and Evidence procedure
ACTDEIFR018T/P		Information Retrieval

DE-XI	
ACTDEHC1019T	Human Computer Interaction
ACTDEIST020T	Information Security and Risk Management
DE-XII	
ACTDESSE021T	Secure System engineering
ACTDECSM022T	Cloud Security & Management

S List of Departmental Skill Enhancement Elective Course (DSEEC-	
ACTDSRPM013P	R - Programming
ACTDSAFT014P	Advance Digital Forensic Tools

Note: Industrial Internship II to be completed after VI semester and before start of VII Semester, i.e. evaluation and credit to be added in VII Semester.

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SAGE UNIVERSITY, INDORE
Institute of Advance Computing
Department Name: Advance Computing (Specialization)
CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure
Effective from Academic Session: 2024-25

Program		BTech (Computer Technology in Cyber Security & Forensic)								Program Code: B.Tech.(CT-CSF)							
Year / Semester		4th Year / VII Sem								Admission Batch: 2022-23, 2023-24							
Subject wise Distribution of Marks and corresponding Credits																	
S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted						Hours / Week.					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)			Total	L	T	P	SM			NTCC Studio/Field Work/o outreach
				End Sem. Exam (ESE)	Continuous Internal		End Sem. Exam (ESE) For Practical and Viva	Continuous Internal Evaluation (CIE)									
					Mid Sem. Test (MST)	Unit Test/Attendance/Assignment/Activity		Lab Work/WPR	Attendance/Assignment/Viva/Lab Manual								
1	ACTDCDFS015T	DC	Wireless & Mobile Security	60	20	20	-	-	-	100	3	0	0			3	3
2	ACTDEXXXXXT	DE	Departmental Elective - XIII	60	20	20	-	-	-	100	3	0	0			3	3
3	ACTDEXXXXXT	DE	Departmental Elective - XIV	60	20	20	-	-	-	100	4	0	0			4	4
5	ACTDEXXXXXT	DE	Departmental Elective - XV	60	20	20	-	-	-	100	4	0	0			4	4
6	ACTDCDFS015P	DC	Wireless & Mobile Security Lab	-	-	-	30	10	10	50	0	0	2			1	2
7	ACTDEXXXXXP	DE	Departmental Elective - XIII Lab	-	-	-	30	10	10	50	0	0	2			1	2
8	ACTDSXXXXXP	DSEEC	Departmental Skill	-	-	-	30	10	10	50	0	0	4			2	4
9	ACTDSINT002N	DSEEC	Internship - II	-	-	-	20	30	30	50	0	0	0		8	4	-
Total				240	80	80	90	50	60	600	14	0	8	0	8	22	22

Departmental Electives (DE)		
DE-XIII		
1	ACTDEIDS023T/P	Intrusion Detection System
2	ACTDEICT024T/P	Cyber Security Threats and Counter Measure
DE-XIV		
3	ACTDEPRG025T	Pattern Recognition
4	ACTDESOW026T	Steganography & Digital water marking
DE-XV		
7	ACTDEDAT029T	Data Analytics
8	ACTDEIPS030T	IOT Privacy and Security Solutions

S List of Departmental Skill Enhancement Elective Course (DSEEC- VII)		
1	ACTDSMLT015P	Matlab
2	ACTDSGOP016P	Go Programming

*Certification Program from the industry will be considered for internship- II



SAGE UNIVERSITY, INDORE
Institute of Advance Computing
Department Name: Advance Computing (Specialization)
CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure
Effective from Academic Session: 2024-25

Program		BTech (Computer Technology in Cyber Security & Forensic)							Program Code: B.Tech.(CT-CSF)								
Year / Semester		4th Year / VII Sem							Admission Batch: 2024-25								
Subject wise Distribution of Marks and corresponding Credits																	
S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted						Hours / Week.					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)			Total	L	T	P	SM			NTCC Studio/Field Work/o outreach
				End Sem. Exam (ESE (MS T))	Continuous Internal		End Sem. Exam (ESE) For Practical and Viva	Continuous Internal Evaluation (CIE)									
					Mid Sem. Test (MS T)	Unit Test/Attendance/Assignment/Activitie		Lab Work/WPR	Attendance/Assignment / Viva/Lab Manual								
1	ACTDCDFS015T	DC	Wireless & Mobile Security	60	20	20	-	-	-	100	3	0	0			3	3
2	ACTDEXXXXXXT	DE	Departmental Elective - XIII	60	20	20	-	-	-	100	3	0	0			3	3
3	ACTDEXXXXXXT	DE	Departmental Elective - XIV	60	20	20	-	-	-	100	4	0	0			4	4
5	ACTDEXXXXXXT	DE	Departmental Elective -XV	60	20	20	-	-	-	100	4	0	0			4	4
6	ACTDCDFS015P	DC	Wireless & Mobile Security Lab	-	-	-	30	10	10	50	0	0	2			1	2
7	ACTDEXXXXXXP	DE	Departmental Elective -XIII Lab	-	-	-	30	10	10	50	0	0	2			1	2
8	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course - VII	-	-	-	30	10	10	50	0	0	4			2	4
9	ACTDSINT002N	DSEEC	Internship - II	-	-	-		20	30	50	0	0	0		8	4	-
Total				240	80	80	90	50	60	600	14	0	8	0	8	22	22

Departmental Electives (DE)		
DE-XIII		
1	ACTDEEHP023T/P	Ethical Hacking and Penetration Testing
2	ACTDECT024T/P	Cyber Security Threats and Counter Measure
DE-XIV		
3	ACTDEPRG025T	Pattern Recognition
4	ACTDESDW026T	Steganography & Digital water marking
DE-XV		
7	ACTDEDAT029T	Data Analytics
8	ACTDEIPS030T	IOT Privacy and Security Solutions

S List of Departmental Skill Enhancement Elective Course (DSEEC- VII)		
1	ACTDSMLT015P	Matlab
2	ACTDSGOP016P	Go Programming

*Certification Program from the industry will be considered for internship- II



SAGE UNIVERSITY, INDORE
Institute of Advance Computing
Department Name: Advance Computing (Specialization)
CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure
Effective from Academic Session: 2024-25

Program		BTech (Computer Technology in Cyber Security & Forensic)							Program Code: B.Tech.(CT-CSE)								
Year / Semester		4th Year / VII Sem							Admission Batch: 2021-22								
Subject wise Distribution of Marks and corresponding Credits																	
S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted						Hours / Week.					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)			Total	L	T	P	SM			NTCC Studio/Field Work/outreach
				End Sem. Exam (ESE)	Continuous Internal		End Sem. Exam (ESE) For Practical and Viva	Continuous Internal Evaluation (CIE)									
					Mid Sem. Test (MS T)	Unit Test/Attendance/Assignment/Activities		Lab Work/WPR	Attendance/Assignment/Viva/Lab Manual								
1	ACTDCDFS015T	DC	Wireless & Mobile Security	60	20	20	-	-	-	100	3	0	0			3	3
2	ACTDEXXXXXT	DE	Departmental Elective - XII	60	20	20	-	-	-	100	3	0	0			3	3
3	ACTDEXXXXXT	DE	Departmental Elective - XIII	60	20	20	-	-	-	100	4	0	0			4	4
5	ACTDEXXXXXT	DE	Departmental Elective - XIV	60	20	20	-	-	-	100	4	0	0			4	4
6	ACTDCDFS015P	DC	Wireless & Mobile Security Lab	-	-	-	30	10	10	50	0	0	2			1	2
7	ACTDEXXXXXP	DE	Departmental Elective -XII Lab	-	-	-	30	10	10	50	0	0	2			1	2
8	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course - VII	-	-	-	30	10	10	50	0	0	4			2	4
9	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course - VIII	-	-	-	30	10	10	50	0	0	4		-	2	0
10	ACTDSXXXXXP	DSEEC	Departmental Skill Enhancement Elective Course - IX	-	-	-	30	10	10	50	0	0	4		-	2	0
11	ACTDSINT002N	DSEEC	Internship - II	-	-	-	-	20	30	50	0	0	0		8	4	-
Total				240	80	80	150	70	80	700	14	0	16	0	8	26	22

Departmental Electives (DE)		
DE-XII		
1	ACTDEIRM023T/P	Introduction to Risk Management & Cyber Laws
2	ACTDECTC024T/P	Cyber Security Threats and Counter Measure
DE-XIII		
3	ACTDEPRG025T	Pattern Recognition
4	ACTDESOW026T	Steganography & Digital water marking
DE-XIV		
7	ACTDEDAT029T	Data Analytics
8	ACTDEIPS030T	IOT Privacy and Security Solutions

\$ List of Departmental Skill Enhancement Elective Course (DSEEC- VII)		
1	ACTDSMLT015P	Matlab
2	ACTDSGOP016P	Go Programming
\$ List of Departmental Skill Enhancement Elective Course (DSEEC- VIII)		
1	ACTDSPDM017P	CAP Stone Projects on Deep Learning & Machine Learning
2	ACTDSIAD018P	IOT Application Development
\$ List of Departmental Skill Enhancement Elective Course (DSEEC- IX)		
1	ACTDSIDS019P	Intrusion Detection and Prevention Lab
2	ACTDSIAM020P	Information Security Audit & Monitoring

*Certification Program from the industry will be considered for internship- II



SAGE UNIVERSITY, INDORE
Institute of Advance Computing
Department Name: Advance Computing (Specialization)
CHOICE BASED CREDIT SYSTEM (CBCS)
Program Structure
Effective from Academic Session: 2024-25

Program		BTech (Computer Technology in Cyber Security & Forensic)						Program Code: B.Tech.(CT-CSF)										
Year / Semester		4 th Year / VIII Sem						Admission Batch: 2021-22, 2022-23, 2023-24, 2024-25										
Subject wise Distribution of Marks and corresponding Credits																		
S. No.	Subject Code	Category	Subject Title	Maximum Marks Allotted							Hours / Week.					Credits	Credit Hours	
				Theory (100 Marks)			Practical/ Studio/ NTCC (50 Marks)				Total	L	T	P	SM			NTCC Studio/ Field Work/o outreach
				End Sem. Exam (ESE)	Continuous Internal Evaluation (CIE)		End Sem. Exam (ESE) For Practical and Viva	Continuous Internal Evaluation (CIE)		Total Marks								
					Mid Sem. Test (MST)	Unit Test/Attendance/ Assignment/ Activitie		Lab Work/ WPR	Attendance/Assignment/ Viva/Lab Manual									
1	ACTDPMJP004N	DAP	Major Project	-	-	-		40	60	100	0	0	0		24	12	-	
Total								40	60	100	0	0	0	-	24	12	0	

Offered Credit Summary

Semester	B.Tech. Computer Tech. (CSF)
I	26
II	28
III	26
IV	24
V	28
VI	28
VII	22
VIII	12
Total	194

Legends

L= Lecture	1 Hr	1 CR
T= Tutorial	1 Hr	1 CR
P= Practical	2 Hr	1 CR
S= Studio	1 Hr	1.5 CR
NTCC = Non Teaching Credit Course	NA	NA
MOOC (M)/Blended MOOC (BM)	2 Hr	1 CR
SM=Self learning MOOC	2 Hr	1 CR

Notes: MOOCS will get credits by SWAYAM or NPTEL Certificates

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