

Chandigarh Business School of Administration

Vision of Chandigarh Business School of Administration

“To be recognized as the leading business school creating committed professionals determined to serve the society”

Mission of Chandigarh Business School of Administration

M1	To continuously grow and become a fountainhead among the business schools through effective teaching learning processes and pre-placement training.
M2	To strengthen connections with the academia, industry and alumni to facilitate overall development of the students.
M3	To enhance business and technological knowledge of students by providing state-of-the-art facilities.
M4	To provide opportunities to the students for global exposure through international tie-ups.
M5	To develop research, innovation and entrepreneurial culture among students and faculty.
M6	To create ethical and socially responsible professionals for the society.

Department of Computer Applications

Vision of Department of Computer Applications

The Department of Computer Applications endeavors to create the most encouraging environment for quality academics and nurturing students into global IT professionals.

Mission of Department of Computer Applications

M1	To bridge the gap between industry and academia through Training and Placement practices.
M2	To foster a culture of technical excellence among both students and faculty.
M3	The department strives for building quality professionals that are committed and self-motivated with specific skills and to prepare the students for the diverse workplace of the global Environment.
M4	To nurture a community of ethical and socially conscious professionals.
M5	To empower the students through strategic international collaborations and providing global exposure.

B.sc (Cyber Security)

Program Outcomes (POs) of B.sc (Cyber Security)		
1	Basic knowledge	An ability to apply knowledge of basic mathematics, science and domain knowledge to solve the computational problems
2	Discipline knowledge	An ability to apply discipline –specific knowledge to solve core and/or applied computational problem
3	Experiments and practice	An ability to plan and perform experiments and practices and to use the results to solve computational problems.
4	Tools Usage	Apply appropriate technologies and tools with an understanding of limitations.
5	Profession and society practice	Demonstrate knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional
6	Environment and sustainability	Understand the impact of the computational solutions in societal and environmental contexts, and demonstrate the knowledge and need for sustainable development.
7	Ethics	Apply ethical principles and commit to professional ethics and responsibilities and norms of the professional practice.
8	Individual and team work	Function effectively as an individual, and as a member or leader in diverse/multidisciplinary teams.
9	Communication	An ability to communicate effectively.
10	Life-long learning	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the context of technological changes.

Program Specific Outcomes (B.Sc. Cyber Security)

PSO1	Technical Skills	Students will be able to participate in various cyber security clubs, hackathons, capture the flag (CTF) competitions, and cyber security conferences which will provide valuable hands-on experience, networking opportunities, and exposure to real-world challenges.
PSO2	Competency and Innovation Outcome	Demonstrated capability to utilize technical and research proficiencies via participation in various laboratory exercises for designing and creating projects employing contemporary software tools. These efforts aim to offer sustainable solutions to Cloud Computing, Machine Learning and Digital forensics challenges pertinent to society.

Program Educational Outcomes (B.Sc. Cyber Security)

PEO1	Analyze the cyber security needs of an organization.
PEO2	Apply knowledge of cyber security issues and mechanisms and the technical expertise to design secure information systems in the future.
PEO3	Adapt knowledge of cyber security to cater the industrial needs, excel in higher studies and innovation in related engineering and management fields.

Batch 2025

Course Outcomes – B.Sc.(Cyber Security) 1st Semester

After the completion of the course, students will be able to:

Mathematics (25C2CCU-101) C: 101

Course Code	Course Outcomes
C101.1	Define various mathematical set notations.
C101.2	Explain different logical terms used in basic mathematics.
C101.3	Illustrate various operations and formulas by matrix algebra.
C101.4	Summarize the finite number of quantities in AP and GP.

Fundamentals of Computer and IT (25C2CCU-102)C:102

Course Code	Course Outcomes
C102.1	Explain the concept of input and output devices of computers.
C102.2	Classify types of computers, their processing and networking with other computing systems and devices.
C102.3	Analyze the operating system and its working to solve problems related to operating systems.
C102.4	Describe word processing, spreadsheet and presentation graphics software skills.
C102.5	Make use of the Internet safely, legally, and responsibly.

Problem Solving using C (25C2CSU-101)C:103

Course Code	Course Outcomes
C103.1	Construct the logical flow used in programming.
C103.2	design algorithms for solving various real life problems using C.
C103.3	develop programs using C.
C103.4	Define different data types and control statements.
C103.5	Explain various concepts of C programming languages.

Workshop on Desktop Publishing(25C2CSU-111)C:104

Course Code	Course Outcomes
C104.1	Define various publishing's expert abilities tools for printing, publishing and designing purpose.
C104.2	Experiment with designing tools to enhance your printing job skills.
C104.3	Build ideas and expertise in the realm of design, encompassing practical experience from text preparation.

C104.4	Build the different professional abilities, designing brochures, flexes, business cards, certificates and newsletter layouts.
Problem Solving using C Laboratory (25C2CSU-112)C:105*	
Course Code	Course Outcomes
C1053*.1	Explain the basic computer concepts and programming principles of C language.
C105*.2	Demonstrate the applications of derived data types such as arrays, pointers, strings and functions.
C105*.3	Apply the C-language syntax rules to correct the bugs in the C program.
C105*.4	Develop C programs to solve simple mathematical and decision making problems.
Fundamentals of Computer and IT Laboratory (25C2CCU-112)C:106*	
Course Code	Course Outcomes
C106*.1	Experiment with Open Office applications for word processing, spreadsheets, and presentations.
C106*.2	Utilize text boxes and paragraphs formatting techniques in newsletter design.
C106*.3	Apply documentation and accounting operations using various software tools.
C106*.4	Create interactive presentations in PowerPoint using different tools.
English(25CCU-103)107	
Course Code	Course Outcomes
C107.1	Explain the concept of business communication along with the prerequisites for an effective communication.
C107.2	Classify business communication with respect to its form (reading, writing, spoken), setting of usage (personal, social, business, interpersonal, intrapersonal or group).
C107.3	Apply the knowledge and skills of business communication in areas of speaking, reading and writing presentations.
C107.4	Explain the barriers of effective business communication.
C107.5	Improve professional communication like reading and writing skills.
English Practical/Laboratory (25C2CCU-113)C:108*	
Course Code	Course Outcomes
C108*.1	Build English vocabulary and language proficiency.
C108*.2	Improve their professional communication through reading and writing practices.
C108*.3	Develop vital communication skills which are integral to personal, social and professional interactions.

C108*.4	Identify common errors in spoken and written communication.
C108*.5	Make use of english language as an independent user.
Human Values Deaddiction and Traffic Rules (25C2HVC-C01)C:109	
Course Code	Course Outcomes
C109.1	Explain the concept of value education, with respect to an individual understands of self, ambitions, happiness and prosperity.
C109.2	Interpret the need of self (I) and body to ensure harmony in a human.
C109.3	Construct a holistic view towards society as a whole and the role of human-to-human interaction in it.
C109.4	Analyze harmony in the nature and existence.
C109.5	Elaborate the knowledge on ethical human values and its implication on modern day professional requirement.
Human Values, Deaddiction and Traffic Rules (Lab/ Seminar) (25C2HVC-C11)C:110*	
Course Code	Course Outcomes
C110*.1	Estimate the development of Holistic perspective among students towards life, profession and happiness.
C110*.2	Identify the essential complementarily between “VALUES” and “SKILLS” to ensure sustained happiness and prosperity.
C110*.3	examine the value-based living in a natural way
C110*.4	formulate plausible implications of such a holistic understanding in terms of Ethical human conduct, trustful and mutually satisfying human behavior.
C110*.5	Outline the responsibilities of a manager for society and organization in the era of globalization at workplace.
Mentoring and Professional Development (25C2CCU-111)C:111**	
Course Code	Course Outcomes
C111**.1	Apply communication skills in today’s workplace to facilitate the ability to work collaboratively.
C111**.2	Outline the understanding of effective group discussion and interview etiquettes.
C111**.3	Identify the different techniques of communication.
C111**.4	Explain various elements of group dynamics, team building activity and cooperation.

C111**.5	Develop leadership qualities for fostering creativity and collaboration.
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Course Outcomes – B.Sc.(Cyber Security) 2nd Semester	
After the completion of the course, students will be able to:	
Operating Systems (25C2CCU-205)C:201	
Course Code	Course Outcomes
C201.1	Evaluate various types of operating systems.
C201.2	Explain different resource managements performed by the operating system.
C201.3	Define the architecture in terms of functions performed by different types of operating systems.
C201.4	Analyze the performance of different algorithms used in design of operating system components.
C201.5	Compare the key properties of different types of operating systems.
Fundamentals of Cyber Security (25C2CSU-201) C:202	
Course Code	Course Outcomes
C202.1	Describe the essential cyber security knowledge areas.
C202.2	Explain the different precautions that are necessary to keep cyberspace safe.
C202.3	Determine the different cyber security threats.
C202.4	Analyze the basic functionalities of cyber security technologies.
Object Oriented Programming using C++ (25C2CSU-202) C:203	
Course Code	Course Outcomes
C203.1	Elaborate the programming from real world examples.
C203.2	Explain object oriented approach for finding solutions to various problems with the help of C++ language.
C203.3	Construct computer based solutions to various real-world problems using C++.
C203.4	Make use of various concepts of object oriented approach towards problem solving.
C203.5	Elaborate the programming from real world examples.
Object Oriented Programming using C++ Laboratory (25C2CSU-212) C:204*	
Course Code	Course Outcomes
C204*.1	Differentiate structure oriented programming and object oriented programming.
C204*.2	Explain the concepts of operator overloading, function overloading &

	polymorphism.
C204*.3	Apply the concept of files, templates and exceptions handling.
C204*.4	develop applications using stream I/O and file I/O.
Operating Systems Laboratory (25C2CCU-215) C:205*	
Course Code	Course Outcomes
C205*.1	Explain the fundamental operating system concepts including Windows and Linux operating system.
C205*.2	Develop programs to simulate memory allocation strategies and virtual memory management.
C205*.3	Apply various file system-related operations such as file creation, deletion, read, write using file management techniques.
C205*.4	Evaluate the performance of operating system components.
Fundamentals of Cyber Security Lab (25C2CSU-211)C:206*	
Course Code	Course Outcomes
C206*.1	Illustrate various security policies.
C206*.2	Explain the concepts of firewalls, including their role in network security.
C206*.3	Demonstrate an understanding of potential security risks and countermeasures to protect against unauthorized data capture.
C206*.4	Develop programs to implement encryption and decryption techniques using Ceaser Cipher and Substitution Cipher algorithms effectively.
Environmental Studies (25C2CCU-201) C:207	
Course Code	Course Outcomes
C207.1	Explain various concepts used in environmental studies.
C207.2	Relate the basic phenomenon of structure and functions of eco-system.
C207.3	Develop the understanding of conventional and non-conventional energy sources, solid waste management and technologies for sustainable development.
C207.4	Interpret the concept of bio-diversity and its conservation.
C207.5	Explain the impact of pollution leading to climate change and environmental disasters.
C207.6	Identify the role of citizen in prevention and safety from pollutants.
Mentoring and Professional Development (25C2CCU-211) C:208**	
Course Code	Course Outcomes

C208**.1	Apply communication skills in today's workplace to facilitate the ability to work collaboratively.
C208**.2	Outline the understanding of effective group discussion and interview etiquettes.
C208**.3	Identify the different techniques of communication.
C208**.4	Explain various elements of group dynamics, team building activity and cooperation.
C208**.5	Develop leadership qualities for fostering creativity and collaboration.

Course Outcomes – B.Sc.(Cyber Security)3rd Semester	
After the completion of the course, students will be able to:	
Computer Networks (25C2CSU-301)C:301	
Course Code	Course Outcomes
C301.1	Describe basic data communication concepts and network types.
C301.2	Apply OSI and TCP/IP models with data link layer techniques.
C301.3	Analyze MAC protocols, IEEE standards, and routing algorithms..
C301.4	Evaluate transport layer functions and TCP/UDP protocols.
C301.5	Design applications using session, presentation, and application layer services.
Ethical Hacking (25C2CSU-304) C:302	
Course Code	Course Outcomes
C302.1	Explain ethical hacking concepts, security threats, vulnerabilities and phases of hacking.
C302.2	Apply reconnaissance and foot printing techniques to gather information about target systems.
C302.3	Explore network scanning techniques to identify live systems, open ports and running services
C302.4	Evaluate system hacking methods including password cracking, sniffing and spoofing techniques.
C302.5	Interpret wireless network security measures against WEP attacks and traffic sniffing threats.
Mathematical Foundations for Cryptography (25C2CSU-305) C:303	
Course Code	Course Outcomes
C303.1	Describe the fundamental concepts of number theory, including divisibility, division

	algorithm, Euclidean algorithm, and prime numbers.
C303.2	Explain the concepts of linear congruences, properties of congruences, modular inverses, Fermat's theorem, Euler's totient function and Euler's theorem.
C303.3	Apply the principles of pseudorandom, true random number generation and perform binary arithmetic and bitwise operations in computational problems.
C303.4	Analyze random number generation, bitwise operations and cryptographic techniques to identify security threats and vulnerabilities.
C303.5	Evaluate the application of number theory, finite fields and random number generation in cryptographic algorithms along with analyzing security risks in cryptographic implementations.

Data Structures (25C2CSU-302) C:304

Course Code	Course Outcomes
C304.1	Explain basic data structure concepts with arrays, pointers and strings.
C304.2	Apply the algorithm complexity and stack and queue operations for solving computational problems.
C304.3	Classify linked lists, structures and their operations for dynamic data management.
C304.4	Examine tree and graph structures along with traversal and shortest path techniques.
C304.5	Develop algorithms and programs of searching, sorting, and hashing techniques for efficient data organization and retrieval.

Computer Networking Laboratory (25C2CSU-311) C:305*

Course Code	Course Outcomes
C305*.1	Identify networking devices, transmission media, cabling techniques and LAN topologies.
C305*.2	Demonstrate the configuration of TCP/IP protocols and dynamic IP addressing in Windows and Linux environments.
C305*.3	Implement network design concepts including classful addressing, subnetting and resource sharing.
C305*.4	Test network connectivity and troubleshoot problems using networking commands and server configurations.
C305*.5	Develop networking programs and utilize simulation tools for analyzing network communication.

Data Structure Laboratory (25C2CSU-312)C:306*

Course Code	Course Outcomes
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C306*.1	Explain dynamic memory allocation, arrays, matrices and string manipulation techniques through C programs.
C306*.2	Make use of searching and sorting algorithms to organize and retrieve data efficiently.
C306*.3	Implement stack and queue data structures using arrays and pointers for problem solving.
C306*.4	Test linked list and tree operations for efficient dynamic data management.
C306*.5	Develop graph traversal programs using BFS and DFS algorithms.

Programming in Python (25C2CSU-303) C:307

Course Code	Course Outcomes
C307.1	Describe Python programming fundamentals, environment setup and core language features.
C307.2	Apply control structures and Python data types to develop problem-solving programs.
C307.3	Analyze functions, modules and packages for modular program development.
C307.4	Develop programs by using exception handling mechanisms and file operations for reliable execution.
C307.5	Explain object-oriented programming concepts using classes and objects in Python.

Programming in Python Lab (25C2CSU-313) C:308*

Course Code	Course Outcomes
C308*:1	Describe basic Python programming concepts through arithmetic, mathematical and control structure programs.
C308*:2	Apply Python constructs to solve problems involving loops, series, matrices and numerical computations.
C308*:3	Implement string, list and dictionary operations for data processing applications.
C308*:4	Experiment with user-defined functions, recursion techniques for modular programming solutions.
C308*:5	Develop object-oriented programs and file handling applications using Python.

Career and Placement Planning - 1 (25C2CSU-314) C:309**

Course Code	Course Outcomes
C309**.1	Explain the structure of C++ programs, programming fundamentals, data types, operators, and input/output Operations.
C309**.1	Apply decision-making and looping constructs to develop basic C++ programs.
C309**.1	Develop modular programs using functions, recursion, and arrays in C++.

C309**.1	Construct object-oriented programs using classes, objects, constructors, and member functions.
C309**.1	Analyze the use of pointers, reference variables, and dynamic memory allocation in C++ programs.

Course Outcomes – B.Sc.(Cyber Security)4th Semester

After the completion of the course, students will be able to:

Database Management System (25C2CSU-401)C:401

Course Code	Course Outcomes
C401.1	Describe the fundamental concepts and components of Database Management Systems (DBMS).
C401.2	Build and execute queries for database creation, manipulation, and retrieval by using SQL commands.
C401.3	Apply cursors, stored procedures and stored functions to implement database operations and improve query Processing in PL/SQL.
C401.4	Analyze database schemas using normalization techniques to identify functional, multivalued and join Dependencies.
C401.5	Explain database recovery mechanisms and concurrency control techniques to ensure data consistency and Reliability in database systems.

Network Security (25C2CSU-402) C:402

Course Code	Course Outcomes
C402.1	Identify security threats using suitable security systems.
C402.2	Analyze messages using encryption and decryption techniques.
C402.3	Decide the use of hashing techniques in creating digital signatures and certificates to ensure data Integrity.
C402.4	Evaluate the application of cryptographic systems in the design and implementation of security Mechanisms such as IPSec and firewalls.
C402.5	Design secure network solutions by integrating security mechanisms such as intrusion detection Systems (IDS), VPNs, and wireless security protocols.

Digital Forensics (25C2CSU-404) C:403

Course Code	Course Outcomes
C403.1	Describe the fundamental concepts and role of forensic science and cyber-criminalistics in the digital Investigation process.
C403.2	Explain the procedures involved in cybercrime scene analysis and unretrieved communications in a criminal investigation.
C403.3	Analyze the process and outcomes of digital forensic investigations by examining collected evidence and critiquing completed forensic cases.
C403.4	Analyze mobile forensic techniques and tools for extracting and preserving digital evidence.
C403.5	Evaluate digital forensic tools, investigation processes, documentation

	practices and emerging forensic Technologies to effectively analyze and present digital evidence in cybercrime investigations.
Cyber Laws and IPR (25C2CSU-405) C:404	
Course Code	Course Outcomes
C404.1	Illustrate statutory, regulatory, constitutional, and organizational laws that affect information technology Professionals.
C404.2	Apply the concepts of case law and common law to analyze current legal dilemmas in the technology field.
C404.3	Analyze the primary forms of intellectual property rights and their significance in the technology domain.
C404.4	Classify different forms of intellectual property protection by comparing their key differences and Similarities.
C404.5	Explain the strategies or recommendations to address the societal impact of intellectual property rights.
Database Management Systems Lab (25C2CSU-411)C:405*	
Course Code	Course Outcomes
C405*.1	Make use of the basic SQL commands and database concepts, including DDL, DML and simple SELECT queries.
C405*.2	Implement SQL queries, aggregate functions, substring comparison, ordering of results and nested queries in relational databases.
C405*.3	Apply SQL queries and operations on relational schemas such as Library and Order databases to retrieve, Manipulate and manage data effectively.
C405*.4	Analyze database requirements to design complex queries, views, and table partitioning and interpret results obtained from multi-table operations and joins.
C405*.5	Develop PL/SQL programs, triggers, and procedural blocks to automate database operations such as arithmetic calculations, row counting and salary updates.
Web Technologies (25C2CSU-403) C:406	
Course Code	Course Outcomes
C406.1	Illustrate the basic HTML tags and their usage in creating simple web pages.
C406.2	Apply HTML techniques to design web pages with multiple sections or frames.
C406.3	Make use of methods for navigating web pages using hypertext and image links for linking web pages.
C406.4	Use key web design concepts and their implementation using JavaScript.
C406.5	Design interactive web forms with special controls using HTML.

Web Technologies Laboratory (25C2CSU-413) C:407*	
Course Code	Course Outcomes
C407*.1	Design pages with simple text formatting tags in HTML.
C407*.2	Create web pages by embedding Audio and Video content.
C407*.3	Develop the web pages with internal and external linking.
C407*.4	Implement advanced web designing concepts using java script.
C407*.5	Create web pages complex programs to solve real world problems.

Network Security Lab (25C2CSU-412) C:408*	
Course Code	Course Outcomes
C408*.1	Illustrate real-time security systems used for identifying and detecting security threats.
C408*.2	Apply public and private cryptographic algorithms for encryption and decryption of messages.
C408*.3	Explore the use of cryptography and hashing techniques in generating digital signatures and Certificates to ensure data integrity.
C408*.4	Classify the application of cryptographic systems in the design and implementation of security mechanisms such as IPSec and firewalls.
C408*.5	Design secure network solutions by integrating security mechanisms such as intrusion detection systems (IDS), VPNs, and wireless security protocols to protect modern networks.

Career and Placement Planning - 2 (25C2CSU-414) C:409**	
Course Code	Course Outcomes
C409**.1	Analyze numerical and logical patterns to identify sequences and determine missing elements in pattern-based problems.
C409**.2	Apply percentage concepts and analytical skills to interpret and solve problems based on numerical data and graphical representations.
C409**.3	examine relational information to determine family relationships and solve logical reasoning problems Accurately.
C409**.4	Make use of mathematical formulas and reasoning to solve problems involving financial calculations and comparative interest scenarios.
C409**.5	Evaluate quantitative relationships and financial situations to solve problems involving inequalities and profit–loss calculations.

After the completion of the course, students will be able to:

Advanced Web Technologies(UGCA2019) C:501

Course Code	Course Outcomes
C501.1	Learn to represent web data and XML document handling.
C501.2	Understand AJAX and relevance.
C501.3	Able to learn how to perform basic CRUD database operations in a Dynamic Website.
C501.4	Learn about web services and their development.

Advanced Web Technology Laboratory (UGCA2020) C:502*

Course Code	Course Outcomes
C502*.1	Understand the advance concepts of website development.
C502*.2	Provide skills to design and develop dynamic web sites.
C502*.3	Work independently for database programming for web applications
C502*.4	Understand concepts of jQuery methods, AJAX, Bootstrap and REACT
C502*.5	Connect the Website with a Database Server and perform basic CRUD operations.
C502*.6	Develop a marker ready website, to be used by clients.

Linux Operating Systems (UGCA2021) C:503

Course Code	Course Outcomes
C503.1	Discuss the evolution of Open Source operating systems.
C503.2	Prepare an environment for working on open source operating system like Linux.
C503.3	Perform resource management in Linux.
C503.4	Write scripts in Linux.
C503.5	Execute user level privileges

Linux Operating System Laboratory (UGCA2024) C:504*

Course Code	Course Outcomes
C504*.1	Identify the need for ethical hacking.
C504*.2	Discuss various OS vulnerabilities.
C504*.3	Explain the need of Penetration testing.

C504*.4	Explore various penetration testing tools.
Penetration Testing Using Open Source Technologies(UGCA2027 8) C:505	
Course Code	Course Outcomes
C505*.1	Identify the need for ethical hacking.
C505*.2	Discuss various OS vulnerabilities.
C505*.3	Explain the need of Penetration testing
C505*.4	Explore various penetration testing tools.
Penetration Testing Using Open Source Technologies Lab (UGCA2029) C:506*	
Course Code	Course Outcomes
C505*.1	To Install and configure Kali Linux.
C505*.2	To Implement penetration testing
C505*.3	To identify various attacks and vulnerabilities.
Firewall & Intrusion Detection (25C2CSU-413) C:507	
Course Code	Course Outcomes
C507.1	Identify risks related to Computer Security and information hazard in various situations.
C507.2	Apply user identification and authentication methods.
C507.3	Apply measures to prevent attacks on the network using a firewall.
C507.4	Apply Cryptographic algorithms and protocols to maintain Computer Security

Course Outcomes – B.Sc.(Cyber Security) 6th Semester	
After the completion of the course, students will be able to:	
Machine Learning(UGCA1950) C:601	
Course Code	Course Outcomes
C601.1	Define the concept of machine learning.
C601.2	Outline the key characteristics of machine learning algorithms.
C601.3	Compare the performance of different machine learning algorithms.
C601.4	Design solution for basic problems using machine learning algorithms.

C601.4	Explain the concept of reinforcement learning.
Machine Learning Laboratory (UGCA1956) C:602*	
Course Code	Course Outcomes
C602*.1	Differentiate between various data types.
C602*.2	Implement programs for various Learning algorithms.
C602*.3	Compare different machine learning algorithms.
C602*.4	Choose the right algorithm for different problems.
C602*.5	Apply Machine Learning algorithms to solve real world problems.
Social Media Security (UGCA2043) C:603	
Course Code	Course Outcomes
C603.1	Understand Core Fundamentals Of Social Networking.
C603.2	To Analyze The Extraction And Mining In Social Networking Data.
C603.3	To Understand The Concept Of Access Control, Privacy And Identity Management.
C603.4	Diagnose And Investigate Cyber Security Events Or Crimes Related To Computer Systems And Digital Evidence.
Cloud Security Architecture(UGCA2045) C:604	
Course Code	Course Outcomes
C604.1	Basic concepts of cloud computing.
C604.2	Underlying principle of cloud virtualization.
C604.3	To Secure the storage devices.
C604.4	To Secure the storage devices.
Cyber Attacks (UGCA2049) C:605	
Course Code	Course Outcomes
C605.1	Analyze and resolve security issues in networks and computer systems to secure an IT infrastructure.

C605.2	Design, develop, test and evaluate secure software.
C605.3	Develop policies and procedures to manage enterprise security risks and attacks.
C605.4	Interpret and forensically investigate security incidents.

Cyber Attacks Laboratory (UGCA2050) C:606*	
Course Code	Course Outcomes
C606*.1	Implement various security policies.
C606*.2	The aim of the course is to introduce the methodologies framework tools of ethical hacking to get awareness in enhancing the security.
C606*.3	To get knowledge on various attacks and their detection.
C606*.4	Gain the knowledge of the use and availability of tools to support an ethical hack.
C606*.5	Gain the knowledge of interpreting the results of a controlled attack.