Estd. 1962 P.O. KAMALABARI, MAJULI:: PIN – 785106

Tele/ Fax: 03775-127759 e.mail: majulicollege@gmail.com

No.

Date: 20.10.2021

Department of Assamese

Course Outcomes:

C 1 To understand the history of Old and Medieval Assamese literature.

To learn the characteristics and diversity of Assamese Literature till the Post Sankardev's period and Assamese folk literature.

C 2 To understand the history of Modern Assamese literature and the concept and trends of contemporary Assamese literature

To know the characteristics and diversity of Assamese Literature from Arunodai to Contemporary Period.

C 3 Introduction of linguistics and its branches as well as the aspects of study of linguistics..

To identify and explain the meaning of languages, nature and scope and its various forms.

C 4 To understand the basic theory of Indian Aesthetics and its history

To Provides knowledge of Indian and Western literary theory.

C 5 To know the different types of literary criticism and methods.

To understand the nature of different literature.

C 6 To understand the history of Assamese poetry and Trends.

To Know the various poems and poets of Assamese Literature.

C 7 To understand the basic concept of Culture and the culture of all tribes of north east.

To understand the life style, food habit, rituals and all other thing about north east tribes.

C 8 To know the nature, scope and meaning of Comparative Indian Literature and the various prospective of studies of it.

To compare various literary texts of Assamese with texts of different languages in the world.

C 9 To create the knowledge of Indo Aryan Language and Literature.

To understand the grammatical trends of Sanskrit language and development of Assamese Language.

C 10 To understand trends and history Assamese prose.

To know the glorious history of Assamese prose by reading selected portions of Assamese prose.

Department of Botany

Course Outcome (COs): (B.Sc. Botany)

CO1: Understand the basic microbial structure, functions, nutrition, growth and metabolism.

CO2: Concept of Biomolecules, Bioenergetics, Enzymes and Cell Biology.

CO3: Details of general characteristics, ecology, life cycles and economic importance of Algae, Fungi and Archegoniate

CO4: Detail structure and development of plant body, adaptive and protective system of plant body.

CO5: Knowledge of origin of cultivated plants, Morphology processing and uses of different economically important plants.

CO6: Details of Genetics and Molecular Biology, Plant Biotechnology and its application

CO7: Knowledge of Plant Ecology and Phytogeography, Plant Systematics and Reproductive biology of Angiosperm.

CO8: Concept of Plant Physiology and Metabolism.

Department of Chemistry

Course Outcome: (B.SC. Chemistry)

CO 1: Introduction of basic inorganic and physical chemistry

CO 2: Concept of basic organic chemistry and importance of chemical thermodynamics.

CO 3: Details about metals, noble gases, hydrocarbons and kinetics.

CO 4: Introduction of coordination chemistry and transition elements along with demonstration of different classes of N-based organic compounds. This course also briefly explains about the important areas of electrochemistry and conductance.

CO 5: Concept of biochemistry along with the introduction of molecular spectroscopy as well aspects of quantum chemistry.

CO 6: This particular course focuses on the study of organometallic compounds and the introduction of the components of industrial chemistry.

Department of Economics

Course outcome of BA Economics (CBCS)

Co-1: this course is designed in such a way that the students can understand the basic principles of microeconomics. It will enrich their knowledge of economics and expand their mental horizon which will enable them to apply the economic ideas in real life situations.

Co-2: This course is mainly designed to grab the basic knowledge of preliminary mathematics and the concepts of macroeconomics. It will enable the students to use mathematics to explain economics problems in general.

Co-3: This course has been designed to provide a sound training in microeconomics theory to formally analyse the behavior of individual agents. The students are to some extent familiar with preliminary concepts of mathematics in previous semesters, so mathematical tools are used to facilitate understanding of the basic concepts. This course also covers the behavior of consumers and producers under the condition of competitive market conditions.

Co-4: This course is mainly concerned with essentials of microeconomics. It gives emphasis on giving conceptual clarity of the students coupled with the use of mathematical tools and reasoning. It covers general equilibrium and welfare under the conditions of imperfect market conditions.

Non-CBCS

Co-(iii): This course is mainly designed to develop the understanding of some basic concepts of micro-economics. It will enhance the economic reasoning of the learners to analyse the behavioral patterns of different economic agents, to understand the decision making process in different market situations. After all, the learners will acquire good knowledge of microeconomics which is very much important for understanding the modern economy functions.

Co-(iv): This course gives emphasis on acquaint the learners with some basic mathematical methods that can be applied in economics. The quantitative analysis is considered very essential to find out the solutions of problems in the society in general.

Co-(v): This course is designed in such a way that it can acquaint the learners with the measurement of development with the help of theories along with conceptual issues of poverty, inequality with Indian Prospective.

Co-(VI): The final year course of Non-CBCS gives emphasis on acquaints the students with the developing issues of Indian Economy. This course will enable the learners to understand the development problems of North-East India in particular.

Department of Education

Course name: CBCS, EDNH; Dibrugarh University

Course Outcome:

The Under Graduate course in Education Honours course gives opportunity the student to understand and describe the meaning, nature, aims, function and role of Education and its different scopes. The course explain the basics as well as emerging trends, concepts of Indian and Western schools of Philosophy and their impact on Education. It discusses about different Ideologies and contributions of great educators around the world. The course also comprises understanding, explaining the meaning and different perspectives of Sociological, Psychological, technological foundations of Education. It identifies different theories of intelligence, personality, aptitude etc. The course is practices on teaching methods, measurement and evaluation in Education with psychological basis. The history of Indian education from the very beginning of Indian Education system and recommendations of the different Education Commissions are also included in the course. The course also contains with value, mental health issues, Guidance and counseling, child psychology. It emphasizes on relationship of education and economic development in context of modern era. The course is also tries promote research activities in the field of social science etc.

One of the most important outcome of the course that it tries to develop positive attitude and awareness towards society, and higher studies in the field of Education.

Department of English

Course Outcome

- CO1: understanding Indian classical mythology in its relation to and contrast with European classical literary tradition.
- CO2: Interpretation and appreciation of major classical texts of different ages of Indian literary history.
- CO3: Appreciation of the creative space and impulse of the popular literature of the world.
- CO4: Understanding various concepts and ideas pertaining to each period of the history of British literature.
- CO5: Getting sensitized to the gender-related issues and being able to see the world from the perspective of the 'Other'.
- CO6: Appreciate and estimate the genre of modern European drama along with its problematic.
- CO 7: Comprehensive knowledge of English social and cultural history.
- CO 8: Understanding the history and nature of English language and linguistics.
- CO 9: Knowledge of the major traditions of literature written in English.

- CO 10: Study of prose, fiction, poetry, drama, philosophy of different traditions including British, Indian and American.
- CO 11: Understanding the concept of postcolonialism and being able to critically appreciate postcolonial texts.
- CO 12: Develop an ability to study texts in relation to their historical and cultural contexts.
- CO 13: Knowledge of major literary genres, terms and concepts such as modernism and postmodernism.
- CO 14: Develop the ability to read works of criticism and theory.

Department of Geography

Course Outcome

- Geography interrelation between other Subjects well as relation as the other branch of Earth science.
- 2. To acquit the students with the various sector economy importance and spatial distribution resource.
- 3. Ability to identification of climatic difference of the Earth and consequence of human ctivities of the atmospheric processes.
- 4. Awareness among the students regarding the Multi-dimensional nature of regional space and the resultant spatial structure.
- 5. To developed skills among the students regarding the use of modern tools and technique like GPS, GIS, interaction and comparison of Satellite imageries.
- 6. Ability to know the history of Geographical thought-thought the course of time by the students.
- 7. Environment conservation and degradation with related problems like climatic change.
- 8. Cartographic method Projection Survey etc.
- 9. Disaster and its managements.
- 10. North East India.

Department of History

COURSE OUTCOME (C0)

HISHC101 HISTORY OF INDIA -1

C01: Analyze the various source materials for the reconstruction of Ancient Indian History and the approaches of historical reconstruction.

Principal Majuli College Kamalabari

HISHC102 SOCIAL FORMATION AND CULTURAL PATTERN OF THE ANCIENT WORLD

during the period between the seventeenth and the early eighteenth century. Transition in the painting, architecture, trade and commerce during the period.

HISHC1011 HISTORY OF MODERN EUROPE I (c.1780-1939)

analyze the historical developments in Europe between 1780-1939. As it focuses on the democratic & socialist foundations of modern Europe, they will be able to situate historical developments of socialist upsurge & the economic forces of the wars, other ideological shifts.

HISHC1012 HISTORY OF India VI (c. 1750-1857)

Trace the British colonial expansion in the political contexts of eighteenth century India. They will learn about the changes in society, politics, religion and economy during this period. They'll also acquire knowledge about the freedom struggle.

HISHC1013 HISTORY OF India VII (c. 1857-1950)

Cover core issues pertaining to vast canvass of nationalist history so that the student at the under graduate level is equipped to focus upon the core ideas of national movement in its contextuality. India's quest for independence and nation building are interwoven script of history, debated most widely at global level with various angles. Indeed, India's national movement has vast and divergent ideological base with inner contradictions.

HISHC1014 HISTORY OF MODERN EUROPE (1780-1939)

Have an understanding of an era of shifting history from Euro centric to World. Able to discuss the turbulent times when totalitarianism rose as an alternative to democratic and liberal ideal and also the growing desire for peace through formation of organizations

DISCIPLINE SPECIFIC ELECTIVE (Any Four)

HISHDSE 501 EARLY AND MEDIEVAL ASSAM TILL 1826 HISHDSE 502 HISTORY OF MODERN ASSAM(1826-1947)

UNDERSTAND the focus and aspects of changes and development in the sociopolitical and economic life in Assam during the British administration.

HISHDSE 601 SOCIAL AND ECONOMIC HISTORY OF ASSAM HISHDSE 602 HISTORIOGRAPHY

Introduce with the basics of the discipline of History and acquaint themselves to understanding of the sources in their varied forms, contents, uses and analysis.

HISHDSE 603 HISTORY OF UNITED STATES OF AMERICA(c. 1776-1945)

Students will enhance their knowledge of the history of America. It will help them understand, synthesize and analyze the major themes and debates in the historiography of America.

GENERIC ELECTIVE (Any Four) COURSE CODE

HISGE 1 HISTORY OF ASSAM 1228-1826

UNDERSTAND the general outline of the history of Assam from the 13th century to the occupation of Assam by the English East India Company in the first quarter of the 19th century and the major stages of developments in the political, social and cultural history of the state during the most important formative period.

CO2: ACQUAINT with the evolution of humankind, the beginning of food production, the bronze age, advent of iron, the slave society in ancient Greece, the economy and the Political culture of the ancient Greece.

HISHC103 History of India II

CO3: acquaints the students with agrarian economy, the growth of urban centres in northern and central India and the Deccan as well as craft production, trade routes and coinage

CO4: Process of state formation and the Mauryan and post-Mauryan plities with special reference to the Kushnas, Satavahanas and Gana-Sanghas.

CO5: Land grants, land rights and peasantry, urban decline and religious traditions of early India

HISHC104 SOCIAL FORMATION AND CULTURAL PATTERNS OF THE MEDIEVAL WORLD

CO6:

Acquainted with the Roman Empire, slave society, the cultural and trade, the crisis and disintegration of the Roman Empire.

CO7: The learners will be exposed to Economic development in Europe from 7th to 14th centuries covering production, technological developments, growth of towns and trade and feudal crisis

HISHC105 HISTORY OF India III(c. 750-1206)

CO8: Students will learn and analyze about the transition from historic centuries to the early medieval. They'll be able to delineate changes in the realm of polity and culture; puranic religion; the growth of vernacular languages and newer forms of art and architecture

HISHC106 RISE OF THE MODERN WEST-I:

CO9: To develop the understanding Europe from a theocratic society to modern Nation state system. Renaissance and its aftermath on European Society, Economy, polity and Culture leading to subsequent development of Nation State and emergence of new ideologies. culminating in the form of French Revolution.

HISHC107 HISTORY OF India IV(c.1206-1550)

CO10: Students will be able to identify the major political developments in the History of India during the period between the twelfth and the sixteenth century. Outline the changes and continuities in the field of culture, especially with regard to art, architecture, bhakti movement and sufi movement. Delineate the development of trade and urban complexes during this period.

HISHC108 RISE OF THE MODERN WEST II

Transition from feudalism to capitalism, rise of modern science, development of enlightenment and origin of American revolution.

HISHC109 HISTORY OF India-V(c. 1550-1605)

Students will be able to identify the major political developments in the History of India during the period between the sixteenth and the seventeenth century. Development in the socio-economic political and religious ideas in the period.

HISHC1010 HISTORY OF India VI(c. 1605-1750)

Students will be able to identify the major political developments in the History of India amalabari

Principal Majuli College during the period between the seventeenth and the early eighteenth century. Transition in the painting, architecture, trade and commerce during the period.

HISHC1011 HISTORY OF MODERN EUROPE I (c.1780-1939)

analyze the historical developments in Europe between 1780-1939. As it focuses on the democratic & socialist foundations of modern Europe, they will be able to situate historical developments of socialist upsurge & the economic forces of the wars, other ideological shifts.

HISHC1012 HISTORY OF India VI (c. 1750-1857)

Trace the British colonial expansion in the political contexts of eighteenth century India. They will learn about the changes in society, politics, religion and economy during this period. They'll also acquire knowledge about the freedom struggle.

HISHC1013 HISTORY OF India VII (c. 1857-1950)

Cover core issues pertaining to vast canvass of nationalist history so that the student at the under graduate level is equipped to focus upon the core ideas of national movement in its contextuality. India's quest for independence and nation building are interwoven script of history, debated most widely at global level with various angles. Indeed, India's national movement has vast and divergent ideological base with inner contradictions.

HISHC1014 HISTORY OF MODERN EUROPE (1780-1939)

Have an understanding of an era of shifting history from Euro centric to World. Able to discuss the turbulent times when totalitarianism rose as an alternative to democratic and liberal ideal and also the growing desire for peace through formation of organizations

DISCIPLINE SPECIFIC ELECTIVE (Any Four)

HISHDSE 501 EARLY AND MEDIEVAL ASSAM TILL 1826 HISHDSE 502 HISTORY OF MODERN ASSAM(1826-1947)

UNDERSTAND the focus and aspects of changes and development in the sociopolitical and economic life in Assam during the British administration.

HISHDSE 601 SOCIAL AND ECONOMIC HISTORY OF ASSAM HISHDSE 602 HISTORIOGRAPHY

Introduce with the basics of the discipline of History and acquaint themselves to understanding of the sources in their varied forms, contents, uses and analysis.

HISHDSE 603 HISTORY OF UNITED STATES OF AMERICA(c. 1776-1945)

Students will enhance their knowledge of the history of America. It will help them understand, synthesize and analyze the major themes and debates in the historiography of America.

GENERIC ELECTIVE (Any Four) COURSE CODE

HISGE 1 HISTORY OF ASSAM 1228-1826

UNDERSTAND the general outline of the history of Assam from the 13th century to the occupation of Assam by the English East India Company in the first quarter of the 19th century and the major stages of developments in the political, social and cultural history of the state during the most important formative period.

HISGE 2 HISTORY OF India FROM THE EARLIEST TIMES TO 1526

ACQUAINT the students with the general outline of the history of India from the known earliest times to the coming of the Mughals to India in the first quarter of the 16th century and a comprehensive idea of the developments in all spheres of life during this period.

HISGE3 HISTORY OF India 1526-1947

UNDERSTAND the state of medieval times, administrative apparatus and society, economy and culture of Mughal period, factors leading to the establishment and consolidation of British rule, growth of nationalism and the circumstances leading to the transfer of power to the Indians.

HISGE 4.1 HISTORY OF MODERN ASSAM(1826-1947)

UNDERSTAND the focus and aspects of changes and development in the socio-political and economic life in Assam during the British administration.

HISGE 4.2 HISTORY OF MODERN EUROPE (1453-1815)

UNDERSTAND the major trends and development that took in Europe which ushered in Modern Age.

Department of Mathematics

COURSE OUTCOMES

- C1.1 Calculus: The students will be able to apply Calculus in real life problem. Also, the students will be able to formulate mathematical models.
- C1.2 Algebra: Student will be able to describe various algebraic structures on sets and also identify the algebraic structures present in different branches of sciences.
- **C2.1 Real Analysis:** Students will be able to identify the properties of the number system. The students will also be able to describe various analytical properties of the real number system.
- C2.2 Differential Equations: The student will be able to use the techniques to solve differential equations. They also able to apply these techniques in various mathematical models used in real life problems.
- **C3.1 Theory of Real Functions:** The students will be able to discuss limit, continuity and differentiability of real valued functions and also they will be able to expand functions in series and different form remainders.

C3.2 Group Theory I: The students will be able to describe various group structures Kamalabari on sets and also able to identify the group structures present in different branches of sciences.

Principal

C3.3 PDE and Systems of ODE: The students will be able to make mathematical formulations and their solutions of various physical problems. They also will be able to design mathematical models used in heat, wave. Also they will be able to describe the Laplace equation and their solutions.

- **C4.1 Numerical Methods:** The students will be able to discuss various numerical methods and interpolation formulae and apply numerical techniques for solving differential equation.
- C4.2 Riemann Integration and Series of Functions: The students will be able to understand about Riemann integration, improper integrals, differentiation and integration of power series.
- C4.3 Ring Theory and Linear Algebra I: The students will be able to describe various ring structures on sets and able to solve the system of linear equations.
- C5.1 Multivariate Calculus: The students will be able to extend the concepts from one variable calculus to function of several variables. They will also be able to demonstrate the ability to think critically and solving application of real world problems involving double or triple integrals.
- **C5.2 Group Theory II:** The students will be able to apply the results from preliminary concept of group theory to solve contemporary problems. Also they will be able to apply the results in communication theory, electrical engineering, computer science and cryptography.
- C6.1 Metric Spaces and Complex analysis: The students will be able to describe various properties of metric spaces, complex number system, its differentiation and integration.
- C6.2 Ring Theory and Linear Algebra II: The students will be able to apply theorems proof or solution techniques to solve real world problems. They will also be able to find the matrix associated with a linear transformation w. r. t. given bases and can understand the relationship between operations of linear transformations and corresponding matrices.
- **DSE-1.1 Analytical Geometry:** Students will be able to sketch parabola, ellipse and hyperbola. They will also be able to solve various geometrical problems analytically.
- **DSE1.2 Portfolio Optimization:** Students will be able to define portfolio optimization and apply them to real world problems.
- **DSE1.3 Financial mathematics:** The students will be able to build quantitative models of financial mathematics or industries. They will also be to apply models to obtain information of practical value in the financial mathematics.
- **DSE2.1 Mathematical Modeling:** The students will be able to solve differential equations and linear programming problems used in mathematical modeling.
- **DSE2.2 Mechanics:** The students will be able to describe moment of a force and couple, general equation of equilibrium and also able to solve problems of translation and rotation of rigid bodies.

Kamalabari

DSE2.3 Number Theory: The students will be able to define number theoretic functions.

- **DSE2.4 Bio-Mathematics:** The students will be able to discuss various models and techniques to study Bio-Mathematics real life problems.
- **DSE2.5 Industrial Mathematics:** The students will be able to use various types of numerical methods to model problems and use simulation to solve problem.
- **DSE3.1 Hydro-Mechanics:** The students will be able to describe the basic properties of Fluid Mechanics.
- **DSE3.2 Linear Programming:** The students will be able to describe various optimization techniques pertaining to linear programming and also able to apply it to problems arising out of real life problems.
- **DSE3.3 Discrete Mathematics:** The students will be able to design graph theoretic models of real life problems.
- **DSE3.4 Theory of Equations:** The students will be able to discuss various properties of algebraic equations, symmetric properties of roots and determination of roots.
- **DSE3.5 Dynamical Systems:** The students will be able to discuss the qualitative properties of difference/ differential equations.
- **DSE4.1 Mathematical methods:** The students will be able to construct mathematical models or real world problems.
- **DSE4.2 Boolean Algebra and Automata Theory:** The students will be able to identify various lattice properties and apply them to describe switching circuits.
- **DSE4.3 Probability and Statistics:** The students will be able to characterize the statistical techniques, define various statistical distributions and describe the mathematical theory of probability.
- **DSE4.4 Differential Geometry:** The students will be able to describe various properties of space cures, surfaces and geodesics.
- GE-1.1 Differential Calculus: Students will be able to differentiate functions, find tangent, normal, curvature, asymptotes etc.
- GE1.20bject Oriented Programming in C++: Students will be able to C-programmes to solve Mathematical problems and design algorithms to solve problems.
- *GE1.3 Finite Element methods:* Students will be able to describe finite element methods and differential equations using finite element methods.
- **GE2.1 Differential Equation:** Students will be able to describe various methods for solving differential equations.

Principal Majuli College

GE2.2 Econometrics: Students will be able to design models and solve problems related to Economic issues.

GE3.1 Real Analysis: Students will be able to describe various analytical properties of the real number system.

GE3.2 Cryptography and Network Security: Students will be able to discuss principles of Cryptography, explain the structure and organization of the complex network.

GE3.3 Information Security: Students will be able to describe security issues and data integrity.

GE4.1 Algebra: Students will be able to describe various algebraic structures on sets and identify the algebraic structures present in different branches of sciences.

GE4.2 Application of Algebra: Students will be able to explain various algebraic structure and solve system of linear equations.

GE4.3 Combinatorial Mathematics: Students will be able to use combinatorial approach in solving algebraic problems.

Department of Political Science

Course Outcome

1. The course introduces the students with the Western Political Thinkers and their contributions, Theories and Philosophies.

2. The basic objective of the course is to acquire knowledge on different forms of government and political systems of not only India but also other countries around the globe.

3. The course helps the students in acquiring knowledge on administrative system of

4. To acquaint the students with the theories and issues of International Relations, Global Politics, Foreign Policy, Diplomacy etc.

5. In the course importance has been also given on Feminism, Human Rights, Public Policy, Politics of Assam etc.

Department of Sanskrit

Course Outcome:

Helps in acquiring knowledge on the basic nuances, theories of Sanskrit grammar.

Helps to develop the skill in framing sentences in Sanskrit.

 Analyses the cultural heritage of India, acquaint with the history and background of Indian culture, and develop respect for Indian cultural tradition.

Introduce students with the concepts of Sanskrit poetics.

Analyses the basic concept of various branches of Indian philosophy.

· Acquaint the students with the various views on the nature of Sanskrit kavyas.

 Helps the students to develop to develop the capacity for creative writing in Sanskitt and literary appreciation.

Department of Sociology

Course Outcome:

- CO1: To introduce sociological way of thinking. It also provides a detailed and specialized course in sociology.
- CO2: Introduces the processes and modes of construction of knowledge of India.
- CO3: This course provides a general introduction to sociological thought.
- CO4: To provides the variety of ideas and debates about India. It engage with the multiple socio-political forces and ideologies which shape the terrain of the nation.
- CO5: To comparative understanding of political relationships through themes such as power, governance and state and society relationships.
- CO6: Understanding of religion through societal thinking.
- CO7: Introduces gender as a critical sociological lens of enquiry in relation to various social fields.
- CO8: It provides understanding of social and cultural bases of economic activity. It highlights the significance of sociological analysis for the study of economic process in local and global contexts.
- CO9: Introduce general principles of kinship and marriage by reference to key terms and theoretical statements.
- CO10: Introduces sociological study of social inequalities and social stratification.
- CO11: Understanding the classics in the making of the discipline of sociology.
- CO12: Introduce to the methodologies of social research methods.
- CO13: To introduce post-classical sociological thinking.
- CO14: Introduce how research done, how formulate research design and methods of data collection.

Department of Zoology

Course Outcome:

- CO 1: Description of the various forms of non chordates and Chordates.
- CO 2: Concept of fundamentals of Ecology and Ecological factors on living organisms and structural anatomy.
- **CO 3**: Concept of Cell Biology, Animal Physiology controlling and coordinating systems, fundamentals of Biochemistry.

CO 4: Concept of Comparative anatomy of Vertebrates.

CO 5: Details about Molecular Biology and Immunology, Principles of Genetics, Biotechnology and Bioinformatics.

CO 6: Basic concept of parasitology, Ethology and Economic Zoology.

Department of B.Voc.(IT)

COURSE OUTCOMES:

Semester I

Upon completion of this course, students will be able to:

- Understand basic computer hardware architecture & be able to design fundamental logic circuits.
- Understand the fundamental hardware components that make up a computer's hardware and the role of each of these components.
- Understand the role of CPU and its components.
- Learn essential IT support skills including installing, configuring, securing and troubleshooting operating systems and hardware.
- Gain hands-on experience of working in Microsoft products such as: MS Word, MS Excel and MS PowerPoint.

Digital Logic design

Upon completion of this course, students will be able to:

- Convert between different number systems and describe some different codes.
- Understand the functions of basic digital combinatorial circuits and sequential circuits.
- Understand the concepts of Boolean algebra.

Understand and design digital logic circuits.

- Understand and design adder, multiplexer etc.
- Flip-flop
- Counters

Programming in C Language

Upon completion of this course, students will be able to:

- Learn how to build by the algorithms for problems.
- Learn how to create pictorial representations of the program.
- Learn how to apply logic for problems.
- Enhance their programming skills.
- Learn about Loops, Conditional statements, Array, Pointers, File Handling, Structure, Unions etc.

Semester II

Data

Structures

Upon completion of this course, students will be able to:

- Learn about how data can be stored in memory.
- Learn and implement Arrays and various operations on array.
- Learn and implement Stacks and Queues and various operations on them.
- Learn and implement the concept of Linked List.
- Learn and implement the concept of various types of Trees.
- Learn and implement various searching and sorting techniques along with their complexity.
- Learn and implement Graph and Graph traversal techniques.

Operating System

Upon completion of this course, students will be able to:

- Gain extensive knowledge on principles and modules of operating systems.
- Understand key mechanisms in design of operating systems modules.
- Understand process management, concurrent processes and threads, memory management, virtual memory concepts, deadlocks.
- Compare performance of processor scheduling algorithms produce algorithmic solutions to process synchronization problems.

PC assembly and troubleshooting

Upon completion of this course, students will be able to:

- Know the historical background of Microprocessor and it's application.
- Learn in deep about 8085 microprocessor and it's architecture.
- Learn about Instruction cycle of 8085.
- Learn in deep about 8086 microprocessor and it's architecture.
- Learn about 8086 addressing modes.
- Learn about interrupts.
- Learn how to simulate 8085 and 8086 operations on a simulator.

Semester III

Introduction to Object Oriented Programming using C++

Upon completion of this course, students will be able to:

- Apply C++ features to program design and implementation.
- Explain object-oriented concepts and describe how they are supported by C++ including identifying the features and peculiarities of the C++ programming language.
- Use C++ to demonstrate practical experience in developing object-oriented solutions.
- Design and implement programs using C++.
- Analyse a problem description, design and build object-oriented software using good coding practices and techniques.
- Implement an achievable practical application and analyse issues related to object-oriented techniques in the C++ programming language

Upon completion of this course, students will be able to:

- Understand the importance of Database.
- Understand the Architecture & Modeling of Database.
- Understand the concept of RDBMS.
- Learn brief introduction to Structured Query Language.
- Learn and implement Backup and Recovery of databases.
- Learn and implement the Database Security.
- Design Commercial database applications

Computer Networks

Upon completion of this course, students will be able to:

- Understand the data communication concepts.
- Understand the concept of Communication channel.
- Understand how the data is transmitted wirelessly.
- Understand the various layers of Network architecture.
- Understand and implement the switching techniques.
- Learn the need to create a Network.
- Learn about different layers and protocols present in those layers.
- Learn to configure the network devices.
- Learn about IP -Addressing.
- Learn about Network Security.

Semester IV

Introduction to

Java

Upon completion of this course, students will be able to:

- Understand the concept of Internet.
- Learn about various protocols.
- Learn about working on Internet.
- Learn and work on various Internet Applications.
- Develop Java Applications, applets etc.

Linux

Upon completion of this course, students will be able to:

- Learn History and various distributions of Linux.
- Learn and perform Installation of Red Hat Linux.
- Learn and operate Red Hat Linux.
- Learn and implement Linux System Administration.
- Learn and implement TCP/IP on Linux.

Basic of Acounting

Upon completion of this course, students will be able to:

- Understand basic accounting terms like debit, credit, journal, day book, trial balance etc.
- Prepare Journals, Day Books, Trial Balance, Profit & Loss statement, Balance Sheet etc.
- Understand Assets, Liabilities, Capital etc.
- Understand the overall Basics of Accounting.

SEMESTER V

Software Engineering

Upon completion of this course, students will be able to:

- Understand the process of Software development.
- Understand and plane the Software development.
- Understand and implement the Coding.
- Debug a software.
- Test a software.

Multimedia and Animation

Upon completion of this course, students will be able to:

Learn and implement basics of Multimedia & Animation.

- Learn and implement Text editing, Image editing etc.
- Learn basics of Computer Graphics.
- Learn and understand Digital audio, Digital video, animation and Special Effects.

Web Development Tools & Techniques

Upon completion of this course, students will be able to:

To develop Webpages, Static Websites, Dynamic Websites.

- To use PHP as Server Side Scripting Language.
- To use jQuery, JavaScript.
- To understand database and it's connectivity with Server Side Scripting language.
- To develop Web Applications with MySQL/SQL as backen

Flash & Director Multimedia Tools

Upon completion of this course, students will be able to:

- Understand Communication and Interactive Communication.
- Learn about creation and execution of Multimedia project.
- Work and create Multimedia Project with Director 11.
- Work and create Multimedia Project with Adobe Flash.

Minor Project

SEMESTER VI

Adobe Photoshop

Major Project