EDUCATION :: EDUCATION

PROGRAMMED OUTCOME

Bachelor in Education The Department of Education is offering three year Bachelor in Education Programme comprises of total 6 (six) semesters viz. 1st, 2nd, 3rd, 4th, 5th and 6th for both Major and General Course. For imparting the programme based learning experiences, the syllabus of Gauhati University is being adopted.

PROGRAMME OUTCOMES (BACHELOR IN EDUCATION) MAJOR & GENERAL COURSE

After completion of the programme, it is expected that the students will be -

- able to Know the meaning, concept and aims of education. They will be able to know the philosophical and sociological bases of education,
- able to Know the meaning, concept and different branches of psychology. They will possess in-depth knowledge of educational psychology to deal with the complex human behaviour in educational set up.
- able to Learn how to construct and administer different psychological tests, conduct psychological experiments along with the measurement and evaluation.
- able to Know the historical background of education, development of education in pre independent and post-independent India.
- able to Get knowledge about the hierarchy and systems involved in educational administration, management and planning. They will also be able to know the interrelationships between education and economy.
- able to Know the prevailing educational systems in other developed nations and the best practices adopted by them.
- able to Possess qualities to some extent of a guide or a counsellor to cope up with the psychological, societal or career related issues in educational environment those may affect the pupils' mental health and hygiene.
- able to Know the constitutional provisions, recent trends and reforms in policy matters of education with special reference to holistic and inclusive education.
- able to acquaint themselves with the best teaching skills.
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PROGRAMME SPECIFIC OUTCOMES HONOURS & GENERAL COURSE

SEMESTER WISE PROGRAMME OUTCOMES (**HONOURS COURSE**)

SEMESTER	PAPER	OUTCOME
1st Semester	C-1: INTRODUCTION TO EDUCATION	Students will be able to understand the meaning, scope and aim of education, constitutional provision of education and role of empowerment of women, familiarize students with modern trends of education and human rights education and concept of freedom and discipline.
	C-2: PHILOSOPHICAL AND SOCIOLOGICAL FOUNDATION OF EDUCATION	Students will be able to understand the meaning, aims, objectives, and functions of education, philosophy and sociology of education, major components in education and their

		interrelationship
2nd semester	C-3: DEVELOPMENT OF EDUCATION IN INDIA	Students will understand the development of education in India in historical perspective, salient features of education in ancient, medieval and British India, recommendations of various commissions and committees on Indian Education.
	C-4: ISSUES AND TRENDS IN CONTEMPORARY INDIAN EDUCATION	This paper will develop understanding of significant trends in contemporary education, awareness of various organizations and their role in the implementation of policies and Programmes, focus attentions on certain major national and social issues and role of education in relation to them and the role of technology/mass media in spreading education among the masses.
3rd Semester	EDU-HC-3016 Development Of Education In India-II	Learner will be able to know the Educational situation during the time of Independence , the recommendations and educational importance of different Education Commission and Committees in post Independent India , about National Policy on Education in different times and accustom with the recent Educational Development in India .
	EDU-HC-3026 Educational Technology And Teaching Methods	Learner will be able to understand the objective of educational technology in teaching learning process with innovations in the field of education through technology ,methods and devices of teaching, effectiveness of teaching and classroom management and strategies of effective teaching as a profession.
3rd Semester	EDU-HC-3036 Value And Peace Education	Enable the students to know meaning of value, role of educational institutions in building a value based society, concept of peace and its importance in human life, different issues/ challenges in imparting peace education, strategies and skills in promoting peace education at institutional level.
4th Semester	EDU-HC-4016 Great Educational Thinkers	Enable the students to learn the Philosophy of life of different Educational Thinkers and their works and relevance of some of their thoughts at present day context.
	EDU-HC-4026 Educational Statistics and Practical	Develop in students the basic concept of Statistics, different statistical procedures used in Education, ability to represent educational data through graphs, Familiarize the students about the Normal Probability Curve and its applications in Education.
	EDU-HC-4036 Emerging Issues In Education	After completion of this unit, students will able to- acquaint with major emerging issues national, state, and local , various issues in education that are emerging in the recent years in the higher education system and how to address the various problems and challenges of education in India at all levels
	5.01 Philosophy of Education	Gives the philosophical ideas , relationship between philosophy and education, knowledge about Idealism, Naturalism and Pragmatism and familarise with

		the Indian schools of philosophical thought — Vedic, Buddhist and Islamic thought.
	5.02 Educational Thinkers- Oriental and Occidental	Students will be able to understand the philosophy of life of different educational thinkers eastern and western and their contribution to present day educational thought.
5th Semester	5.03 Teacher Education	Students will be able to understand the concept, aims, scope and development of teacher education in India, different policies and practices and quality assurance in Teacher education, importance of in-service and pre-service training programmes, and professional ethics and accountability of teacher, and different organizations involved in teacher education
	5.04 Teaching –Learning Method and Pedagogy	Students will be able to know the teaching learning process, the principles, maxims fundamental of teaching, various methods , strategies, models and devices of teaching and it will form a positive attitude towards the teaching profession
	5.05 Statistics in Education	This course will enable the students to understand the basic concept of statistics, different statistical procedures used in Education, about the Normal Probability Curve and its applications in Education.
	5.06 Practical paper	Enable the students to understand the concept of experimental psychology, methods of conducting various psychological experiments and tests and develop scientific attitude amongst students
	6.01 Developmental Psychology	Enable the students to understand the basic concepts relating to development, about heredity and environmental factors affecting pre-natal Development, development aspects during infancy and childhood, development aspects of adolescence, importance of adolescence period and problems associated with this stage.
	6.02 Continuing Education and Distance Education	Enable the students to understand the concept of continuing education , methods and techniques of continuing education, development of Adult Education in India, major problems confronting adult education, meaning, characteristics, merits and demerits of distance, different forms of instructional strategies in distance education along with the distance mode of learning.
6th Semester	6.03 Special Education	Enable the students to understand the meaning and importance of special education, different types of special children with their behavioural characteristics, different issues, education provisions and support services of special children.
	6.04 Guidance and Counselling	Enable the students to understand the concept, nature, scope, need and importance of Guidance and counseling its types, programmes and organizations.
	6.05 Educational Management and	This course will enable the students to understand

	Administration	the basic concepts of management, organization and administration and supervision , its Types, Principles and Functions and institutional planning
	6.06 Project Work	Students will be able to conduct survey in different areas by following the research format.

SEMESTER WISE PROGRAMME OUTCOMES (**REGULAR COURSE**)

SEMESTER	PAPER	OUTCOME
1st semester	DSC- 1(A): INTRODUCTION To EDUCATION	Students will be able to understand the meaning, scope and aim of education, constitutional provision of education and role of empowerment of women, familiarize students with modern trends of education and human rights education and concept of freedom and discipline.
2nd semester	DSC- 1(B): PHILOSOPHICAL AND SOCIOLOGICALFOUNDATION OF EDUCATION	Students will be able to understand the meaning, aims, objectives, and functions of education, philosophy and sociology of education, major components in education and their interrelationship
3rd semester	EDU-RC-3016 GUIDANCE ANDCOUNSELLING	Enable the students to understand the concept, nature, scope, need and importance of Guidance and counseling its types, programmes and organizations.
3rd semester	EDU-SEC- 3014 PUBLIC SPEAKING SKILL	After completing this course, students will be able to acquire the capacities of public speaking skill.
4th semester	EDU-RC-4016 HISTORY OF EDUCATION IN INDIA	Students will understand the development of education in India in historical perspective, salient features of education in ancient, medieval and British India, recommendations of various commissions and committees on Indian Education.
4th semester	**EDU-SE-4014** WRITING BIODATA AND FACING AN INTERVIEW	After completing this course, students will be able to write a bio-data scientifically and will develop confidence to face different types of interview.
5th semester	5.01 Emerging Issues And Education	Developaw areness and understanding about different literacy programmes, women empowerment, Human rights, globalization, vocationalization of secondary education, understanding regarding students indiscipline –its causes and remedies, about national integration and International understanding and the role of education in promoting them, importance and means of life skill education, methods and programmmes of Peace Education.
	5.02 Educational Measurement	Acquire knowledge of the concept of measurement and evaluation in education, different types of educational tests and their uses, procedure of

	and Educational Statistics	constructing educational and psychological tests, about intelligence test, personality test, aptitude, interest and attitude test, and educational achievement test, and also about new trends in evaluation
6th semester	6.01 Educational Technology	Enable the students to understand the concept and scope and objectives of Educational Technology, teaching technology, behavioural technology and instructional technology, communication, process, teaching aids, system approach and use of computer and internet in educational technology, innovations in Education through Educational Technology –Team Teaching, E-Learning and E-Library
	6.02 Environmental and Population Education	Enable the students to understand the concept, scope and importance of environmental education, environmental education at different levels of education, knowledge on disaster management education. It also enable the students to understand the effect of population growth on poverty, health and hygiene and the importance of population education in school levels.

COURSE OUTCOME

The Programme of B.A Education Honours & General equips the student for competitive exams like,Teacher Eligibility Test (TET), SSC, RAIL, P.O. etc. and enhances employability. It also motivates the students for professional courses like, D.L.Ed., B.Ed., L.L.B., B.L.I.S., Computer, Guidance & Counselling, Fashion Design, Inclusive Education courses, Psychological Counsellor, Montessori Teacher Training etc.

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DEPARTMENT :: ENGLISH

COURSE OUTCOME

BODOLAND UNIVERSITY, UG ENGLISH, C.B.C.S (HONOURS)

SEMESTER	COURSE CODE	COURSE NAME	COURSE OUTCOME

I	C-1	Indian Classical Literature	This paper introduces students to a selection of Classical Literatures of India in English translation. Given that Indian Classical Literature offers a rich and diverse canvas that spans across genres like drama, poetry, the epic narrative as well as short fictional fables, to name a few. This paper will encourage students to think literally about literatures of the world, and the possibility of cultural exchange.
	C-2	European Classical Literature	This paper introduces students to a selection of Classical Literatures of Europe in English translation. The European Classical Literature offers a rich and diverse canvas that spans across genres like drama, poetry, the epic narrative as well as short fictional fables, to name a few. While the Aristotelian focus on the examination of the essentials of poetry extended to incorporate discussions on epic and drama, subsequent writers such as Horace drew attention to the purposefulness of the creative exercise. In the theatre the widely divergent compositions by Sophocles and Plautus respectively show the consolidation of a rich cultural discourse. It is this enriching literary tradition that this paper will familiarize with through the study of representative texts belonging to the Classical Period.

B.A. 1st SEMESTER (REGULAR)

SEMESTER	COURSE CODE	COURSE NAME	COURSE OUTCOME
I	ENG-101R	English-1 (Compulsory)	This paper seeks to acquaint students with the major genres of English literature through texts which are landmarks of each genre. It provides the student an opportunity to read and respond to representations of issues in contemporary life and culture in the English language. The selection of texts (Prose, Poetry & Drama) is aimed to present themes and topics that are stimulating, insightful and informative. The grammar section in the paper will help students to learn effectively the structure of English language.

B.A. 1st SEMESTER (HONOURS/REGULAR)

SEMESTER	COURSE CODE	COURSE NAME	COURSE OUTCOME
I	ENG-104R-AECC	English Communication	The purpose of this course is to introduce students to the theory, fundamentals and tools of communication and to develop in them vital communication skills which should be integral to personal, social and professional interactions. It focuses on various dimensions of communication skills such as: language of communication, various speaking skills such as personal communication, social interactions and communication in professional situations such as interviews, group discussions and office environments, important reading skills as well as writing skills such as report writing, notetaking etc. It is hoped that after studying this course, students will find a difference in their personal and professional interactions.

GAUHATI UNIVERSITY, UG ENGLISH, C.B.C.S

B.A. 3rd& 5th SEMESTER

SEMESTER	**COURSE CODE**	**COURSE NAME**	**COURSE OUTCOME**
III	ENG-HC-3016	American Literature	This paper will enable the students with the main trends of American literature in its social and cultural contexts. The texts incorporated in the paper are a historical reflection of the growth of American society and of the way the literary imagination has grappled with such growth and change. Hence, the paper will lead to an acquaintance with the American society in its evolutionary stages from the beginnings of modernism to the present as well as with exciting generic innovations and developments that have tried to keep pace with social changes.
	ENG-HC-3026	Popular Literature	This paper will enable the students to understand the nature of ―Popular literature‖ as a genre and the critical ideas underpinning the theorization of popular literature as well as how it has moved from the margins to earn for itself a fairly important place in the literary and critical consciousness.
	ENG-HC-3036	British Poetry and Drama: 17th and	This paper will familiarize the students with British literature in the 17th and 18th

		18th Centuries	centuries, a time-period which sees the emergence and establishment of greatly diverse kinds of writings. The selected texts will encourage the students to look at the economic, political and social changes in Britain during this period, such as the shifts from the Puritan Age to the Restoration and Neoclassical periods. It will also enable the students to familiarize with the larger contexts that generated such literatures as well as the possible impacts of the literature on society. The significance of the scientific revolution during this period will be understood in the process of this study.
V	ENG-HC-5016	British Literature: The 20th Century	This paper will familiarize the students with the voice of Modernism in arts and literature, with its urgent desire to break with the codes and conventions of the past, experiment with new forms and idioms, and its cosmopolitan willingness to open itself up to influences coming from other shores. It will also get acquainted with the ethos of postmodernism through a reading of recent poetic and fictional works.
	ENG-HC-5026	Women's Writing	This paper will familiarize the students to the 19th and 20th century writings by women living in different geographical and socio cultural settings. Students will get acquainted with the distinct experiences of women articulated in a variety of genres-poetry, novels, short stories, and autobiography. It will also familiarize the students with the earliest feminist treatises of the western world.
	ENG-HE-5036	Literature of the Indian Diaspora	This paper will introduce the students with the ideas of transnationalism, exile, migration, displacement, and so on, and how the literature of the diaspora has come to exert a strong presence in the global scene.
	ENG-HE-5056	Literary Criticism and Literary Theory	This paper will acquaint the students with some important text and topics on literary criticism and theory of the critics. The paper informs the students on the shifts in literary interpretations. It enables a broad appreciation of global literature that provides new perspective to better understand literature. It ingrains the mind towards creative writing, critical thinking, analysis and appreciation.

DEPARTMENT OF HISTORY

SEMESTER	COURSE CODE	COURSE NAME	COURSE OUTCOME
1	C-1	Introduction to History-	After the completion of this paper students will be able to understand the basics of the discipline of History and its relation with other disciplines. The course will also help to understand the development of history writing in different country as well as in India.
	C-2	History of India (Earliest to 300 A.D.)	After the completion of this paper, the students will be able to explore and effectively use historical tools in reconstructing the remote past of ancient India pre and proto history. The course will also train the students to analyses the various stages of evolution of human cultures and belief system in proto – history period
2	C-3	HISTORY OF INDIA (300-1206)A.DI	After the completion of this paper, the students will also be able to explain the emergence of state system in North India, development of imperial state structure and state formation in South India in early period. They will be able to to understand the changes and transformation in polity, economy and society in early India and linkages developed through contacts with outside world
	C-4	Rise of Modern West	.On completion of this course , the students will be able to explain the major trends and developments in the western world between the 14^{th} to the 16^{th} century CE. They will be able to explore and analyse the significant historical shifts and events and resultant effects on the civilizations of Europe in the period.
3	HC- 3016	History of India III(c.750-1206)	The completion of this paper will enable the students to relate and explain the developments in India in its political and economic fields and its relation to the social and cultural patterns theirin in the historical time period between c.700to 1206. They will also to analyse India's interaction with another wave of foreign influence and the changes brought in its wake in the period.
	HC-3026	Rise of Modern West-I	On completion of this course , the students will be able to explain the major trends and developments in the western world between the 14^{th} to the 16^{th} century CE. They will be able to explore and analyse the significant

			historical shifts and events and resultant effects on the civilizations of Europe in the period.
	HC-3036	History of India Iv(c.1206-1550)	After completion of this course students will be able to explain the political and administrative history of Medieval period of India from 1206 to 1550AD. They will also be able to analyse the sourses of history < regional variations , social , cultural and economic set up of the period.
4	HC-4016	Rise of the Modern west II	.After the completion of this course, the students will be able to explain the political and intellectual currents in Europe in the Modern age. They will also be able to relate the circumstances and casual factors of the intellectual and revolutionary currents of both Europe and America at the beginning of the Modern age.
	HC-4026	History of India V(c.1550-1605)	After the completion of this course, the students will be able to analyse the circumstances and historical shifts and foundations of a variety of administrative and political set up in India between c. 1550-1605. They will also be able to describe the inter relationships between the economy , culture and religious practices of the period.
	HC-4036	History of India V(c.1605-1750)	After the completion of this course, the students will be able to explain and reconstruct the linkages of the history of India under the Mughal Rule. As a whole, this course will enable them to relate to the socio-economic and religious orientation of people of Medieval period in India.
5	509	INDIA UNDER THE EAST INDIA COMPANY	After the completion of this course, the students will be able to relate the circumstances leading to the consolidation of colonial rule over India and their consequences. They will also be able to explain the orientation of the indigenous population and the masses towards resistance to the colonial exploitation. The course will also enable the students to analyse popular uprisings among the tribal, peasant and common people against the British policies.
	510	HISTORY OF ASSAM (1228-1826)	On completion of this paper, students will be able to identify major stages of developments in the political, social and cultural history of Assam during the medieval times. This paper will enable the student to explain the history of Assam from the 13thcentury to the occupation of Assam by the English East India Company in the first quarter of the 19th century.
	511	HISTORY OF EUROPE (1789-1870)	After the completion of this course the students will be able to evaluate the historical evolution and political

			developments that occurred in Europe in the period between 1789-1870. They will also be also to analyse the political development in Italy and Germany and nationalist sentiment in Europe..
	512	HISTORY OF SCIENCE AND TECHNOLOGY IN PRE- COLONIAL INDIA	After the completion of this course the students will be able to understand about the development of indigenous science and technology of India before the advent of East India Company.
	513	HISTORY OF GREAT BRITAIN (1485-1820)	After the completion of this course the students will be able to analyse political, constitutional and economic developments that occurred in great Britain in the period between 1485-1820.
	514	HISTORY OF CHINA (1839-1949)	After the completion of this course the students will be able to understand about the political changes in China from its opening to outside world to the foundation of the republic.
6	615	INDIA UNDER THE CROWN	At the completion of this course, the learners will be able to analyse the course of British colonial exploitation, the social mobilizations during the period betweenc.1857 to 1950 and also the techniques of Indian resistance to British policies.
	616	HISTORY OF ASSAM (1826-1947)	Upon completion of this course, students will be able to describe the period of British rule in Assam after its annexation by the imperialist forces. They will also be able to situate the development of nationalism in Assam and its role in India's freedom struggle. The course would enable the students to analyse the main currents of the political and socio-economic developments in Assam during the colonial period.
	617	HISTORY OF EUROPE (1871-1945)	After the completion of this course, the students will be able to analyse the historical developments in Europe between1871-1945 . Students will also be able to understand about the internal developments in France, Germany ,Italy and Russia.
	618	WORLD SINCE 1945	Upon completion of this course, students will be able to understand about the cold war and its consequences, problem of third world countries, foundation and role of UNO
	619	HISTORY OF JAPAN (1853-1941)	After the completion of this course, the students will be able to analyse about the political development in Japan between the period1853-1941.,They will also be able to acquired knowledge about the circumstances which helped Japan to emerged as world power.
	620	PROJECT	To aware the students about research activities with some local and regional

			problems. Through this projects the students got acquainted with the problems of carrying our research with the available data and material.

DEPARTMENT OF POLITICAL SCIENCE

Programme Outcomes, Programme Specific Outcomes and Course Outcomes

Programmes

- At the conclusion of the Bachelors degree programme, students acquire significant knowledge of classical and contemporary political theories. It also provides an understanding of western as well as eastern political thinkers.
- About contemporary international politics and debates surrounding globalization, terrorism, environmental degradation and feminism.
- About comparative politics and analysis of the political system and constitutions of different countries
- Human rights, Indian foreign policy, public administration and issues effecting international relations.

Programme Specific Outcomes

- It enables students to carry out further research on the Indian constitution.
- It enables students to pursue courses and a career in law and legal affairs.
- Many students develop interest in International relations and have chosen a career in international agencies such as the United Nations, the World Trade Organisation etc.
- It enables the students to appear in Civil service examinations (Centre and State levels).
- Many have succeeded in joining International and National Non Governmental Organisations.

Course Outcomes

The following were the courses offered by the Goreswar College (as per the Gauhati University, Non CBCS programmes, CBCS Programmes and Bodoland University).

COURSE OUTCOMES

SEMESTER	SERIAL No.	COURSE NAME	COURSE OUTCOME
1	1.1	Political theory I	The course enables students to gain

			knowledge about traditional political theories, the concept of power and its relationship with authority and legitimacy, concept of ideologies and concept of state.
1	1.2	Politics in India I	The course helps students to gain an understanding of colonial legacies, Indian freedom movement and Indian constitutional history. It also makes the students to understand the Indian Constitution and its basic features such as fundamental rights, relationship between executive and legislature and Judiciary.
1		Political Theory (DSC+Generic)	The course enables students to grasp the knowledge of classical political theories. It deals with major concepts like rights, duties, citizenship, equality and justice.
2	2.1	Political Theory II	The course enables students to gain knowledge of theories and types of democracy. It makes them understand the concept of development, justice and multiculturalism.
2	2.2	Politics in India II	The course enables students to gain knowledge of Centre-State relations, the party system in India (National as well as regional), the Election system and Challenges to national integration.
2		Politics in India (DSC+Generic)	The course enables students to gain knowledge of the colonial legacies and constitutional history of India. It deals with the functioning of executive, legislature and judiciary in the Indian political system.
3	3.1	Introduction to Comparative Government and Politics	The paper enables students to understand the basic features of comparative politics. It discusses historical context of modern governments does a comparative analysis of the governments of Britain, Brazil, Nigeria and China.
3	3.2	Perspectives on Public Administration I	The course enables students to understand the concept, scope and importance of public administration. It also makes them knowledgeable about administrative theories, principles of organization and structure of organization.
3	3.3	Perspectives on International Relations and World History	The course enables students to gain knowledge of the theories of international relations such as classical realism, neo-realism, liberalism, Marxists and Feminist approaches.

3		Comparative Government and Politics (DSC+Generic)	The course enables students to do a comparative analysis of the government and political system of different countries.
3		Parliamentary Procedures and Practices (Skill Enhancement Paper)	The course enables students to understand the functioning of modern parliamentary system. It makes them aware about passing of bills, question and zero hours, adjournment motions and other concepts related to the functioning of parliament.
4	4.1	Political Process and Institution in a Comparative Perspective	The course enables students to gain the knowledge of the political processes and institutions in a comparative perspective. It deals with issues such as political culture, electoral system, party system, democratization and Federlism
4.	4.2	Public Policy and Administration in India	The course enables students to acquire knowledge about Recruitment, Training and Promotion of Administrative Officers, Financial and Development Administration, Concept of Accountability and redressal of public grievances.
4	4.3	Global Politics	The course enables students to know about the debates regarding globalization. It also deals with the role of World Bank, IMF and WTO. The course also discusses significant issues like global terrorism and environment.
4.		Introduction to International Relations (DSC+Generic)	The course makes the students knowledgeable about the basic concepts of international politics such as realism, idealism, balance of power, feminist and marxist interpretation of IR. It also makes them aware of nuclear proliferation, global terrorism and environmentalism.

4		Panchayati Raj and Practice (Skill Enhancement Paper)	The course enables students to achieve knowledge of local self government in India. It makes them aware of the various provisions of the Indian constitution that deals with panchayati Raj institutions including the issues which is effecting panchayati Raj institutions such as corruption, misuse of funds etc.
5.	5.1	Western Political Thinkers	This course enables students to gain knowledge of Greek political thinkers such as Plato and Aristotle, Medieval and Early Modern Thinkers, The Contractualists and Marxian Political Thought.
5.	5.2	Select Constitution I	The course teaches students about the meaning and classification of constitutions. The course enables students to do a comparative analysis of the Constitution of United Kingdom and United States of America.
5	5.3	Politics in Northeast India	The course ensures students to develop an understanding of politics of Northeast India. It discusses the geo-strategic location and socio-cultural diversity, colonial policy of annexation and administration. It also teaches them about peoples' resistance against colonial rule and migration during British period.
5	5.4	Contemporary Political Issues	The course enables students to understand contemporary political issues such as Environmental degradation, Terrorism, Human Development and Security and Gender issues.
5.	5.5	Rural Local Governance	The course makes students aware of rural local governance in India during the ancient, colonial and contemporary period. It also teaches them about Zilla, Anchalik and Gaon Panchayat.

5.	5.6	Human Rights	The course makes students knowledgeable about the concept, growth, evolution and classification of human rights. It also makes them aware of different approaches and perspectives of human rights, about role of UN in protecting human rights and also that of NGOs.
5.		Public Administration I (5.1) (General)	The course enables students to know about the evolution of and importance of public administration. It deals with scientific management theory, bureaucratic theory, principles and structures of organization.
5		Select Constitution I (5.2) (General)	The course will enable the students to gain knowledge of the significance of constitution. It does a comparative study of the constitution of United Kingdom and United States of America.
6.	6.1	Indian Political Thinkers	The course enables students to gain knowledge of Indian political thinkers such as Manu, Kautilya, Raja Ram Mohan Roy and Jyotitbarao Phule. It also makes them knowledgeable about M.N. Roy, Mahatma Gandhi, Jawaharlal Nehru, B.R. Ambedkar and J.P. Narayan.
6.	6.2	Select Constitution II	The course enables students to do a comparative analysis of the history and working of the constitutions of Peoples' Republic of China and Switzerland.
6.	6.3	Politics in Northeast India II	The course enables students to gain knowledge about the post colonial developments in Northeast India. It makes them knowledgeable about Language politics, insurgency and changing nature of State politics in Assam.
6.	6.4	Contemporary Political Ideologies	The course makes the students knowledgeable about contemporary political ideologies such as Neo-liberalism, Feminism, Religious Fundamentalism and Multi-culturalism.
6.	6.5	Urban Local Governance	The course provides knowledge to the students regarding urban governance, constitutional structure of urban local bodies such as Nagar panchayat and Municipal council, various committees and finance, control and personnel administration.
6.	6.6	Human Rights in India	The course enables students to gain knowledge of human rights in ancient, medieval and colonial periods. It provides them knowledge about institutions such as

			NHRC, NCW and National Commission for SC and ST. It also makes them knowledgeable about rights of women, children, minority and indigenous groups.
6		Public Administration II (6.1) (General)	The course enables students to gain knowledge of personnel, financial and development administration. It also deals with the concept of accountability and redressal of public grievances.
6		Select Constitution II (6.2) (General)	The course will enable students to gain knowledge of the constitutions of the Peoples Republic of China and Switzerland. It will also carry out a comparative perspective of both the constitutions.

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DEPARTMENT :: ECONOMICS

OUTCOME OF COURSES UNDER B.A AND B.SC MAJOR PROGRAM IN

ECONOMICS

ECO-C1: INTRODUCTORY MICROECONOMICS

Course Description: This course is designed to expose the students to the basic concepts of Microeconomics. This paper also emphasis on the consumer behavior and demand. This paper will also provide vital knowledge of the theory of production and cost. The last unit of this paper

includes output decisions and profit maximization which provides various knowledge of revenues, costs and their relations.

ECO-C2: INTERMEDIATE MACROECONOMICS

Course Description: The course is designed to provide vast knowledge of basic issues of macroeconomics and national income which is very important integral part of a country. To understand modern economy the students of economics need to study classical theories which is included in this course. It is also included in this course that how the simple Keynesian model in a closed economy is analyzed. This course will also help students to understand classicalist's views on the demand for money and Keyne's demand motive of the demand for money.

ECO-GE1: PRINCIPLE OF MICROECONOMICS-I

Course Description: This course introduces various basic concepts of Microeconomics to the students. This course also aims at understanding the consumer's behaviors under various circumstances and how it is related to demand. This course also gives an idea of the production function and its related concepts.

C-3: INTERMEDIATE MICROECONOMICS-I

Course Description: This course focuses on consumer theory. It also provides knowledge of production, cots and perfect competition. The pricing of factors under perfect competition has also been included in this course to provide knowledge regarding factor pricing among the students and related topics.

C-4: MATHEMATICAL METHODS IN ECONOMICS-I

Course Description: This course is the integral compulsory course of the second semester students. It is comprehensive study on mathematics to help out students to cope up with emerging mathematical demand in economics. It includes various important basic topics like

preliminaries, functions of real variable, single-variable optimization, integration of functions and difference equations.

GE-2: PRINCIPLE OF MACROECONOMICS-I

Course Description: The course is emphasized to provide vast knowledge of basic issues of macroeconomics and national income which is very important integral part of a country. To understand modern economy the students of economics need to study classical theories which is included in this course. It is also included in this course that how the simple Keynesian model in a closed economy is analyzed.

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OUTCOME OF COURSES UNDER B.A AND B.SC MAJOR PROGRAM IN

ECONOMICS

ECO-HC-3016: INTERMEDIATE MICROECONOMICS - I

Course Description: The course is designed to provide a sound training in microeconomic theory

to formally analyze the behavior of individual agents. Since students are already familiar with the quantitative techniques in the previous semesters, mathematical tools are used to facilitate understanding of the basic concepts. This course looks at the behavior of the consumer and the producer and also covers the behavior of a competitive firm.

ECO-HC-3026: INTERMEDIATE MACROECONOMICS - I

Course Description: This course introduces the students to formal modeling of a macro-economy

in terms of analytical tools. It discusses various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. It also introduces the students to various theoretical issues related to an open economy.

ECO-HC-3036: STATISTICAL METHODS FOR ECONOMICS

Course Description: This is a course on statistical methods for economics. It begins with some basic concepts and terminology that are fundamental to statistical analysis and inference. It then develops the notion of probability, followed by probability distributions of discrete and continuous random variables and of joint distributions. This is followed by a discussion on sampling techniques used to collect survey data. The course introduces the notion of sampling

distributions that act as a bridge between probability theory and statistical inference. The semester concludes with some topics in statistical inference that include point and interval estimation.

ECO-HC-4016: INTERMEDIATE MICROECONOMICS - II

Course Description: This course is a sequel to Intermediate Microeconomics I. The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and

reasoning. It covers general equilibrium and welfare, imperfect markets and topics under

information economics.

ECO-HC-4026: INTERMEDIATE MACROECONOMICS - II

Course Description: This course is a sequel to Intermediate Macroeconomics I. In this course, the

students are introduced to the long run dynamic issues like growth and technical progress. It also

provides the micro-foundations to the various aggregative concepts used in the previous course.

ECO-HC-4036: INTRODUCTORY ECONOMETRICS

Course Description This course provides a comprehensive introduction to basic econometric concepts and techniques. It covers statistical concepts of hypothesis testing, estimation and diagnostic testing of simple and multiple regression models. The course also covers the consequences of and tests for misspecification of regression models.

5th and 6 th Sem Non-CBCS (GU) Syllabus

OUTCOME OF COURSES UNDER B.A AND B.SC MAJOR PROGRAM IN ECONOMICS

PAPER 501 ELEMENTS OF PUBLIC FINANCE:

It imparts the role of the govt. in an economy. This course explains the different concepts of public revenue, public expenditure and public debt. It will be able to interpret the effects of public expenditure, public debt on the economy.

PAPER 502: BASIC STATISTICS FOR ECONOMICS:

(For Arts) It imparts statistical tools necessary for Economics. It begins with some basic concepts and terminology that are fundamental to statistical analysis and inference. It then develops the notion of probability, followed by probability distributions of discrete and continuous random variables and of joint distributions.

PAPER 503: ENVIRONMENTAL ECONOMICS:

It looks at how economic activity and policy affect the environment in which we live. This course focuses on economic causes of environmental problems. Economic implications of environmental policy are also addressed as well as valuation of environmental quality, market

failure, externality, Global environment issues and environmental impact assessments.

PAPER 504 INTERNATIONAL ECONOMICS:

It helps in assessing economic and political effects and the implication to the international trade for goods and services, finance and foreign investment.

PAPER 505 HISTORY OF ECONOMIC THOUGHT:

It helps us to understand the origin of economics and to avoid the mistakes committed by earlier economic thinkers. It discusses about early and classical period followed by socialist thoughts.

PAPER 506: DEVELOPMENT POLICY AND INDIAN ECONOMY:

It imparts the policy of Indian govt. It helps students to understand the trends and composition of

National Income and per capita Income, discusses about the role of agriculture in economics development and the role of Industries in the Development process.

PAPER 601: PUBLIC ECONOMICS

It will look into the efficiency and equity aspects of taxation, Government budget of the centre, states and the local governments and the issues of fiscal and fiscal federalism and decentralization in India. The course will be useful for students aiming towards careers in the government sector, policy analysis, business and journalism.

PAPER 602: APPLIED STATISTICS (For Arts)

It explains the concepts and uses of Index number followed by time series analysis and vital statistics.

PAPER 603: ECONOMICS OF NATURAL RESOURCES AND SUSTAINABLE DEVELOPMENT

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies. It has also explains the renewable and non renewable resources, sustainable development.

PAPER 604: INTERNATIONAL ECONOMICS

This course develops a systematic exposition of models that try to explain the composition,

direction and consequences of Balance of payments, foreign exchange market and exchange rates. It concludes with an analytical account of the causes and consequences of Economic Integration and International Institutions.

PAPER 605 HISTORY OF ECONOMIC THOUGHT II

This course aims to introduce the students to the famous schools of thought, Keynesian economics and Indian economic thought.

PAPER 606 PLANNING FOR DEVELOPMENT: INDIA AND THE NORTHEAST

This is the second module of the economic development sequence. It begins with basic planning concepts and their evolution during the process of development. The course explains the reflections on the role of globalization and increased international dependence on the process of development. The course ends with the economic problems and comparative development experience of North-east India vis-à-vis all India average.

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PROGRAME OUTCOME (CBCS)

Session 2020-2021

Under Bodoland University

Dept. of Assamese,

1st & 2nd Semester

ASM C-1	History of Assamese Literature	Unit -1: Assamese Oral Literature : Introduction, Concepts , Characteristics and its Development. Unit-II: Assamese Classical Literature:Pre –sankari, Sankari,and Post SankariAge Unit-III: Assamese Missionary Literature (1836-1846) Unit-IV: Assamese Romantic Literature (1846 1940) Unit-V: Post war Assamese Literature Since (1940)	Through this Paper students can learn about the history of Assamese literature from beginning to 1940.
ASM C-2	History of Assamese Language	Unit-I: Origin and Development of Assamese Language 5th Century-13 Century) Unit –II: Early Assamese Language (13th Century-16th Century) (Purani Asamiya Bhasa) Unit-III: Medieval Assamese Language(17th Century-1800 AD) (Madhyajugar Asamiya Bhasa) Unit-IV: Modern Assamese Language of Missionary Period (1800AD-1850AD) (Arunodai jugar Bhasa) Unit-V: Modern Assamese Language (AdhuniK Asamiya Bhasa) Since 1850	Through this Paper students can learn about the history of Assamese Language from beginning period.

2nd Semester, Assamese Honours

ASM C-3	Cultural Behavior of Assam	Unit-I: Definition, Classification, Scope and Importance Culture with Special reference to Folk- Culture. Unit-II: Behavioral Pattern of society: Material Culture, (Folk craft, Folk art, Folk Architecture, Folk costume and Folk Cookery, Folk music, Folk dance. Unit- III: Festivals and Rituals: Folk Festival and celebration, Recreation and games, Folk medicine and folk religion Unit- IV: Cultural Issues: Tribal culture of Assam with Special reference to Boro , Rabha and Karbi. Unit –V: Origin names of Assam , Origin People of Assam and their contribution .	Through this Paper students can learn about the Cultural history of Assam.
ASM C-4	Functional Grammar of Assamese Language	Unit -1: History of Assamese Grammar, Classification of Assamese Grammar, Necessity of Assamese Grammar. Unit-II: Definition, Classification of parts of speech, Noun , Pronoun,	Through this Paper students can learn about the Grammatical knowledge and linguistic characteristics of Assamese Language.

		Adjective, Verb and Case Unit- III: Semantic Properties: Definition of word, formation of word , Classification of word, Spelling , Antonyms, Synonyms Unit –IV: Sentence Structure: Definition, Formation, And Classification of Sentence, Transformation of Sentence. Unit –V: Assamese Vocabulary.	

3st & 4nd Semester

ASM-HC-3016	Introduction to Assamese Literature	Unit -1: folktales, Poem and Short stories Unit-II: Essays and Criticism Unit-III: Auto biography, Biography and Novel Unit-IV: travelogue popular writings	They will know about Assamese story, poetry and short story.
ASM-HC-3026	Sample of Assamese Poem	Unit-I: From the Ramayan of Madhab Kandali Unit –II: Selected Poetry of Sankardeva and Ram saraswati Unit-III: Selected Poetry of Chandra Kumar Agarwala, Raghunath Choudhary, Devakanta Barua Unit-IV Selected Poetry of Nabakanta Barua, Ajit Barua and Nilomoni Phukan	They will learn about old and modern Assamese poetry.
ASM-HC-3036	Study on Assamese Culture	Unit-I: Definition, Classification, Scope and Importance Culture Unit- II: Material Culture, (Folk craft, Folk art, Folk Architecture, Folk costume and Folk Cookery, Folk music, Folk dance. Unit- III: Festival and Performing Art	The student will know about the Assamese cultural studies and various religion of Assam

		Unit- IV Architecture of Assam, Art and sculpture	

4th Semester, Assamese Honours

ASM-HC-4016	Comparative Indian Literature	Unit-I: Introduction of comparative literature. Unit-II: Introduction of Indian comparative literature. Unit- III: Selected short stories of Charat Ch Chattupadhyaya, Usha Priyambada and Besgahalli Rama Unit- IV: Selected novel of Munchi Premchand and Bibhuti Bhushan bandupadhyaya	The students will learn about the theory of comparative Indian Literature.

ASM-HC-4026	Assimilation of Assamese Language	Unit I : Origin and development of Assamese Language Unit II : Relation between Assamese and Pali-Prakrit-Apabhramsa Unit III : Relation between non-Aryan Language with Assamese Language. Unit IV : Different Aryan and non Aryan elements in Modern Assamese Language	The learner will know about the Assimilation of Assamese Language and also Aryan and non- Aryan Language.
ASM-HC-4036	Study on Assamese Prose	Unit –I Selected Prose of Sankardeva, Madhabdeva and Mantra Puthi Unit –II Selected Prose of Bhattdava, Gopal Charan Dwija and Raghunath Mahanta Unit-III Selected Prose from Katha Guru Charit and Satsari Asom Buranji Unit-IV Selected Prose from Hasti Vidyarnava, Rock Edict, Personal letter of Ahom King Chandrakanta Shingha	The learner will know about History of Assamese Prose

College 5th & 6th Semester

5th Semester, Assamese Honours (NON-CBCS)

M-501	Old Assamese Drama	Unit -1: Rukmini Haran of Sankar Deva Unit-II: Arjun Bhanjan of Madhabdeva Unit-III: Subhadra Haran of Sriram Ata Unit-IV: Janmajatra of Gopaldeva	Students will learn about the Ankiya Nat or Origin of Assamese Drama
M-502	Sample of Old Assamese Prose	Unit-I: Katha Gita Unit –II: Selected Prose of Sankardeva and Gopal Charan Dwija Unit-III: Selected Prose of Raghunath Mahanta, Ratnakar Kandali and Arjun Das Boiragi Unit-IV Selected Prose Srinath Duwara Barua and Nathan Brown	Students will learn about the Origin and Development of Assamese Prose.

M-503	Study on Brajabuli Literature	Unit-I: Origin and development of Brajabuli Language Unit- II: selected Poetry of Sankardeva and Madhabdeva Unit- III: Selected Poetry of Bidyabati and Ray Ramanda Unit- IV Selected Poetry of Gyandas and Gobinda Das	The student will know about the Assamese cultural studies and various religion of Assam
M-504	Grammar and Literature of Pali-Prakrit	Unit-I: Origin and development of Pali-Prakrit Language Unit- II: Dharmmapada and Karpur Manjari Unit- III: Abhijyanam-Sakuntalam Unit- IV Linguistics Studies of Pali Prikrit and Abahattha Language	The student will learn about the Pali-Prakrit language and Literature
M-505	Literary criticism	Unit –I Concept of Eastern Criticism Unit –II Concept of western Criticism Unit-III Western Criticism- Drama and Poem Unit IV Western Criticism-Novel and short Stories	The students will learn about the theory of Literary criticism on the base of East and west tradition.
M-506		Unit I : Brief Introduction to Language families Unit – II Co-relation between Language, Race, Society and Culture Unit-III Form of Different Language First Language, State Language, National Language, Regional Language, Slandered Language, Dialect, and Lingua Franka Unit IV : Change of Language.	The students will learn about the linguistics variety and change of Language.

6th Semester, Assamese Honours (NON-CBCS)

M-601	Modern Assamese Drama	Unit-I: Trend of Modern Assamese Drama Unit-II: Rupalim by Jyoti Prasad Agarawala Unit- III: Maniram Dewan by Prabin Phukan Unit- IV: Hengdang by Uttam Barua	The students will learn about the Modern Assamese Drama

M-602	Modern Assamese Prose	Unit I : Selected prose of Hemchandra Barua and Gunabhiram Barua Unit II : Selected prose of Lambudar Bora and Laxminath Bezbarua Unit III : Selected prose of Hemchandra Goswami and Nilmoni Phukan Unit IV : Selected prose of Banikanta Kakati and Tirthanath Sarma	Main intention of this paper is to impart knowledge about the Modern Assamese Prose
M-603	Studies on Modern Indian Literature	Unit –I Introduction to latest trend of Indian Literature Unit –II Selected short stories of Rabindranath and Munchi Premchand Unit-III Padma Nadir Majhi by Manik Bandopadhyaya Unit-IV Mayala Anchal by Phanidhar Nath Renu	Main focus of this paper is to give new dimensions of Modern Indian Literature
M-604	Study on Assamese Short stories and novel	Unit- Trend of Assamese Short stories Unit-II Trend of Assamese Novel Unit-III Selected Sort Stories of Lakhidhar Sarma, Laxminandan Bora, Prabina Saikia Unit-IV Mamore Dhara Taruwal by Mamoni Roycham Goswami	This paper will help the students to acquaint about the Assamese Short stories and novel
M-605	Chanda And Alankar	Unit-I General Introduction of Chanda Unit-II Different types of Chanda Unit-III Importance of Anankar in poetry Unit-IV Concept of Sabdalankar and Arthalankar	It is endeavour to increased knowledge about the ancient Indian criticism i.e. Chanda And Alankar
M-606	Introduction to Linguistics	Unit-I Branches of Linguistics Unit-II Phonology and Morphology Unit-III Semantics and Syntax Unit –IV Dialectology And socio-	The purpose of this paper to enhance the knowledge about the linguistics theories.

		linguistics	

Programme Outcome:

Under Graduate course in Assamese Major deals with linguistics and the history of Assamese literature. It incorporates Assamese literature from the 9th to the 21st century and also includes Western and Eastern Literature and Cultural History. The cultural history paper includes various aspects like tourism, archaeology, agriculture and fashion. This paper requires the students to acquire knowledge on indigenous dress and ornaments. It also encompasses information on various religious and historical places of interest and archaeology. Variety and scope of agriculture is another area that it covers.

Programme Specific Outcome:

After completion of this course students will gain information on the Assamese culture and tradition. The course will provide skills in creative writing. Competence in the language will empower them with communicative skills. It gives knowledge on the life of famous poets and authors as well as they are famous work. They will also know about research work by their field project.

Course Outcome :

After passing out with Major in Assamese students can opt for Post Graduate in literature, Linguistics, Culture Studies, Mass Communication and Tourism. They can engage themselves as teaching related job and other jobs like Reporter, Proof reader, News-reader.

ASM C-1	History of Assamese Literature	Unit -1: Assamese Oral Literature : Introduction, Concepts , Characteristics and its Development. Unit-II: Assamese Classical Literature:Pre –sankari, Sankari,and Post Sankari Age Unit-III: Assamese Missionary Literature (1836-1846) Unit-IV: Assamese Romantic Literature (1846 1940) Unit-V: Post war Assamese Literature Since (1940)	Through this Paper students can learn about the history of Assamese literature from beginning to 1940.
ASM C-2	History of Assamese Language	Unit-I: Origin and Development of Assamese Language 5th Century-13 Century) Unit –II: Early Assamese Language (13th Century-16th Century) (Purani Asamiya Bhasa) Unit-III: Medieval Assamese Language (17th Century-1800 AD) (Madhyajugar Asamiya Bhasa) Unit-IV: Modern Assamese Language of Missionary Period (1800AD-1850AD) (Arunodai jugar Bhasa) Unit-V: Modern Assamese Language (AdhuniK Asamiya Bhasa) Since 1850	Through this Paper students can learn about the history of Assamese Language from beginning period.

2nd Semester, Assamese Honours

ASM C-3	Cultural Behavior of Assam	Unit-I: Definition, Classification, Scope and Importance Culture with Special reference to Folk- Culture. Unit-II: Behavioral Pattern of society: Material Culture, (Folk craft, Folk art, Folk Architecture, Folk costume and Folk Cookery, Folk music, Folk dance. Unit- III: Festivals and Rituals: Folk Festival and celebration, Recreation and games, Folk medicine and folk religion Unit- IV: Cultural Issues: Tribal culture of Assam with Special reference to Boro , Rabha and Karbi. Unit –V: Origin names of Assam , Origin People of Assam and their contribution .	Through this Paper students can learn about the Cultural history of Assam.
ASM C-4	Functional Grammar of Assamese Language	Unit -1: History of Assamese Grammar, Classification of Assamese Grammar, Necessity of Assamese Grammar. Unit-II: Definition, Classification of parts of speech, Noun , Pronoun,	Through this Paper students can learn about the Grammatical knowledge and linguistic characteristics of Assamese Language.

		Adjective, Verb and Case Unit- III: Semantic Properties: Definition of word, formation of word , Classification of word, Spelling , Antonyms, Synonyms Unit –IV: Sentence Structure: Definition, Formation, And Classification of Sentence, Transformation of Sentence. Unit –V: Assamese Vocabulary.	

PROGRAME OUTCOME
(CBCS)
Session 2020-2021
Under Gauhati University

3rd Semester, Assamese Honours (CBCS)

Dept. of Assamese, Goreswar College 3st & 4nd Semester

ASM-HC-3016	Introduction to Assamese Literature	Unit -1: folktales, Poem and Short stories Unit-II: Essays and Criticism Unit-III: Auto biography, Biography and Novel Unit-IV: travelogue popular writings	They will know about Assamese story, poetry and short story.
ASM-HC-3026	Sample of Assamese Poem	Unit-I: From the Ramayan of Madhab Kandali Unit –II: Selected Poetry of Sankardeva and Ram saraswati Unit-III: Selected Poetry of Chandra Kumar Agarwala, Raghunath Choudhary, Devakanta Barua Unit-IV Selected Poetry of Nabakanta Barua, Ajit Barua and Nilomoni Phukan	They will learn about old and modern Assamese poetry.
ASM-HC-3036	Study on Assamese Culture	Unit-I: Definition, Classification, Scope and Importance Culture Unit- II: Material Culture, (Folk craft, Folk art, Folk Architecture, Folk costume and Folk Cookery, Folk music, Folk dance. Unit- III: Festival and Performing Art Unit- IV Architecture of Assam, Art and sculpture	The student will know about the Assamese cultural studies and various religion of Assam

4th Semester, Assamese Honours

ASM-HC-4016	Comparati ve Indian Literature	Unit-I: Introduction of comparative literature. Unit-II: Introduction of Indian comparative literature. Unit- III: Selected short stories of Charat Ch Chattupadhyaya, Usha Priyambada and Besgahalli Rama Unit- IV: Selected novel of Munchi Premchand and Bibhuti Bhushan bandupadhyaya	The students will learn about the theory of comparative Indian Literature.

ASM-HC-4026	Assimilation of Assamese Language	Unit I : Origin and development of Assamese Language Unit II : Relation between Assamese and Pali-Prakrit-Apabhramsa Unit III : Relation between non-Aryan Language with Assamese Language. Unit IV : Different Aryan and non Aryan elements in Modern Assamese Language	The learner will know about the Assimilation of Assamese Language and also Aryan and non- Aryan Language.
ASM-HC-4036	Study on Assamese Prose	Unit –I Selected Prose of Sankardeva, Madhabdeva and Mantra Puthi Unit –II Selected Prose of Bhattdava, Gopal Charan Dwija and Raghunath Mahanta Unit-III Selected Prose from Katha Guru Charit and Satsari Asom Buranji Unit-IV Selected Prose from Hasti Vidyarnava, Rock Edict, Personal letter of Ahom King Chandrakanta Shingha	The learner will know about History of Assamese Prose

PROGRAME OUTCOME (NON-CBCS)

Session 2020-2021

Under Gauhati University

Dept. of Assamese, Goreswar College 5th & 6th Semester

5th Semester, Assamese Honours (NON-CBCS)

M-501	Old Assamese Drama	Unit -1: Rukmini Haran of Sankar Deva Unit-II: Arjun Bhanjan of Madhabdeva Unit-III: Subhadra Haran of Sriram Ata Unit-IV: Janmajatra of Gopaldeva	Students will learn about the Ankiya Nat or Origin of Assamese Drama

M-502	Sample of Old Assamese Prose	Unit-I: Katha Gita Unit –II: Selected Prose of Sankardeva and Gopal Charan Dwija Unit-III: Selected Prose of Raghunath Mahanta, Ratnakar Kandali and Arjun Das Boiragi Unit-IV Selected Prose Srinath Duwara Barua and Nathan Brown	Students will learn about the Origin and Development of Assamese Prose.
M-503	Study on Brajabuli Literature	Unit-I: Origin and development of Brajabuli Language Unit- II: selected Poetry of Sankardeva and Madhabdeva Unit- III: Selected Poetry of Bidyabati and Ray Ramanda Unit- IV Selected Poetry of Gyandas and Gobinda Das	The student will know about the Assamese cultural studies and various religion of Assam
M-504	Grammar and Literature of Pali-Prakrit	Unit-I: Origin and development of Pali-Prakrit Language Unit- II: Dharmmapada and Karpur Manjari Unit- III: Abhijyanam-Sakuntalam Unit- IV Linguistics Studies of Pali Prikrit and Abahattha Language	The student will learn about the Pali-Prakrit language and Literature
M-505	Literary criticism	Unit –I Concept of Eastern Criticism Unit –II Concept of western Criticism Unit-III Western Criticism- Drama and Poem Unit IV Western Criticism-Novel and short Stories	The students will learn about the theory of Literary criticism on the base of East and west tradition.
M-506		Unit I : Brief Introduction to Language families Unit – II Co-relation between Language, Race, Society and Culture Unit-III Form of Different Language First Language, State Language, National Language, Regional Language, Slandered Language, Dialect, and Lingua Franka Unit IV : Change of Language.	The students will learn about the linguistics variety and change of Language.

6th Semester, Assamese Honours (NON-CBCS)

M-601	Modern Assamese Drama	Unit-I: Trend of Modern Assamese Drama Unit-II: Rupalim by Jyoti Prasad Agarawala Unit- III: Maniram Dewan by Prabin Phukan Unit- IV: Hengdang by Uttam Barua	The students will learn about the Modern Assamese Drama
M-602	Modern Assamese Prose	Unit I : Selected prose of Hemchandra Barua and Gunabhiram Barua Unit II : Selected prose of Lambudar Bora and Laxminath Bezbarua Unit III : Selected prose of Hemchandra Goswami and Nilmoni Phukan Unit IV : Selected prose of Banikanta Kakati and Tirthanath Sarma	Main intention of this paper is to impart knowledge about the Modern Assamese Prose
M-603	Studies on Modern Indian Literature	Unit –I Introduction to latest trend of Indian Literature Unit –II Selected short stories of Rabindranath and Munchi Premchand Unit-III Padma Nadir Majhi by Manik Bandopadhyaya Unit-IV Mayala Anchal by Phanidhar Nath Renu	Main focus of this paper is to give new dimensions of Modern Indian Literature
M-604	Study on Assamese Short stories and novel	Unit- Trend of Assamese Short stories Unit-II Trend of Assamese Novel Unit-III Selected Sort Stories of Lakhidhar Sarma, Laxminandan Bora, Prabina Saikia Unit-IV Mamore Dhara Taruwal by Mamoni Roycham Goswami	This paper will help the students to acquaint about the Assamese Short stories and novel
M-605	Chanda And Alankar	Unit-I General Introduction of Chanda Unit-II Different types of Chanda Unit-III Importance of Anankar in poetry Unit-IV Concept of Sabdalankar and Arthalankar	It is endeavour to increased knowledge about the ancient Indian criticism i.e. Chanda And Alankar

M-606	Introduction to Linguistics	Unit-I Branches of Linguistics Unit-II Phonology and Morphology Unit-III Semantics and Syntax Unit –IV Dialectology And socio-	The purpose of this paper to enhance the knowledge about the linguistics theories.

		linguistics	

Programme Outcome:

Under Graduate course in Assamese Major deals with linguistics and the history of Assamese literature. It incorporates Assamese literature from the 9th to the 21st century and also includes Western and Eastern Literature and Cultural History. The cultural history paper includes various aspects like tourism, archaeology, agriculture and fashion. This paper requires the students to acquire knowledge on indigenous dress and ornaments. It also encompasses information on various religious and historical places of interest and archaeology. Variety and scope of agriculture is another area that it covers.

Programme Specific Outcome:

After completion of this course students will gain information on the Assamese culture and tradition. The course will provide skills in creative writing. Competence in the language will empower them with communicative skills. It gives knowledge on the life of famous poets and authors as well as they are famous work. They will also know about research work by their field project.

Course Outcome :

After passing out with Major in Assamese students can opt for Post Graduate in literature, Linguistics, Culture Studies, Mass Communication and Tourism. They can engage themselves as teaching related job and other job

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DEPARTMENT :: CHEMISTRY

Program Outcomes and Course Outcomes

Program Outcomes	• To understand the basic facts and concepts in Chemistry • To understand the importance of Chemistry in daily life • To develop a better understanding and reasoning of facts • To skill-up for basic analytical tools • To skill-up for various laboratory techniques used in pharmaceutical laboratories and chemical industries. • To make efficient for various spectrometric analyses
Course Outcomes	
SEM-I	**Paper RC/HG-1016:CHEMISTRY1** After completion of this course the students will learn the atomic structure through the basic concepts of quantum mechanics. They will understand the chemical bonding through VB and MO approaches. In organic part, they will learn basic ideas used in organic chemistry, stereochemistry, functional groups, alkanes, alkenes, alkynes etc. **Lab: Practical Chemistry** After completion of this course students will be able to analyze volumetric estimation, detection of extra elements in organic compound and separation of mixtures by chromatography.
SEM –II	**Paper RC/HG-2016:CHEMISTRY2** After completion of this course the students will learn periodic properties in main group elements, transition metals (3d series). They will also learn the crystal field theory in coordination chemistry unit. In physical chemistry part the students are expected to learn kinetic theory of gases, ideal gases, surface tension, viscosity, basic solid state chemistry and chemical kinetics. **Lab: Practical Chemistry2** After completion of this course students will be able to semi-micro qualitative analysis using H_2S mixture, Estimation, determination of surface tension, Viscosity, Chemical kinetics etc.
	Paper RC/HG-3016:CHEMISTRY3

SEM –III	After completion of this course the students will able to understand the chemical system from thermodynamic points of view. They will also learn two very important topics in chemistry- chemical equilibrium and ionic equilibrium. In organic chemistry part, the students are expected to learn various classes of organic molecules- alkyl halides, aryl halides, alcohols, phenols, ethers, aldehydes and ketones. **Lab: Practical Chemistry3** After completion of this course students will be able to analyze the the various experiments of thermochemistry, measurements of pH, Purification of organic compounds, preparation of organic compounds etc. **Paper: SE-3042:IT SKILLS FOR CHEMISTS** After completion of this course students are able to use the computer for basic purpose of preparing his/her personal/business letters, viewing information on Internet (the web), sending mails, using internet banking services etc. After opting this course the students are expected to accumulate the skills in writing activities and handling numerical data. **Paper: SE-3034: BASIC ANALYTICAL CEMISTRY** Upon completion of this course, students shall be able to explain the basic principles of chemical analysis, design/implement microscale and semimicro experiments, record, interpret and analyze data following scientific methodology.
SEM –IV	**Paper RC/HG-4016:CHEMISTRY4** After completion of this course the students learn solutions, phase rule and its application in specific cases, basics of conductance and electrochemistry. Students will also learn some important topics of organic and biochemistry, carboxylic acids, amines, amino acids, peptides, proteins and carbohydrates. **Lab: Practical Chemistry4** After completion of this course students will be able to analyze cell constant, equivalent conductance, construction of phase diagram, determination of critical

	solution temperature, qualitative analysis of organic compounds, paperchromatography etc. **Paper: SE-4014: ANALYTICAL CLINICAL BIOCHEMISTRY** After completion of this course students will be able to identify various molecules relevant to a particular pathological condition and their estimation protocols. **Paper: SE-4024: GREEN METHODS IN CHEMISTRY** Students shall be able to describe and evaluate chemical products and processes from environmental perspective, define and propose sustainable solutions and critically assess the methods for waste reduction and recycling. **Paper: SE-4034: PHARMACEUTICAL CHEMISTRY** After completion of this, course students will be able to appreciate the drugs development process, identify various small molecules used for treatments different ailments and other physiological processes.
SEM –V	**Paper- RE-5016: APPLICATION OF COMPUTERS IN CHEMISTRY** After the completion of this course it will help the students to interpret laboratory data, curve fitting of experimental work, and also perform quantum mechanical calculations for various molecular models. At the same time through the experiments, after completion of this course students will be able to interpret computer programs based on numerical methods for roots of equation, numerical differentiation, numerical integration, matrix operations, simple exercise using molecular visualization software etc. **Paper- RE-5026: ANALYTICAL METHODS IN CHEMISTRY** After completion of this course students will have theoretical understanding about choice of various analytical techniques used for qualitative and quantitative characterization of samples. At the same time through the experiments students will gain hands on experience of the discussed techniques. This will enable students to take judicious decision while analyzing different samples.

	Paper-RE-5036: MOLECULAR MODELLING & DRUG DESIGN After completion of this course students will be able to identify basic components of computer and programming as applied to computer assisted design and modelling of molecules. At the same time through the experiments after completion of this course students are able to analyse the conformation of butane, comparison of shapes of different molecules, hydration of ethylene, comparison of different optimised bond angles etc. **Paper: RE-5046: NOVAL INORGANIC SOLIDS** After the completion of this course it will be possible for the students to opt for studying an interdisciplinary master's programme with an emphasis on the synthesis and application of various materials or take up a job in the materials production and or processing industry. At the same time though the experiments students are able to learn how to determine the cation are exchange, synthesis of ceramic oxides, synthesis of Ag and Au metal nano-particles etc. **Paper: RE-5056: POLYMER CHEMISTRY** After completion of this course the students will learn the definition and classification of polymers, kinetics of polymerization, molecular weight of polymers, glass transition temperature, and polymer solution etc. They also learn the brief introduction of preparation, structure, and properties of some industrially important technologically promising polymers through experiments. **Paper: RE-5066: INSTRUMENTAL METHODS OF CHEMICAL ANALYSIS** After completion of this course students shall be able to explain the theoretical basis of different analytical techniques, identify the experimental requirements and compare or analyze data or results thereof. **Paper: SE-5014: CHEMICAL TECHNOLOGY & SOCIETY** Students shall be familiarized with processes and

	terminologies in chemical industry, like mass balance, energy balance etc. Learners will be able to use chemical and scientific literacy as a means to better understand the topics related to the society. **Paper: SE-5024: CHEMOINFORMATICS** After completion of this course, the students shall be able to explain, interpret and critically examine the utility of computers and software tools to solving chemistry related problems. Recognize, apply, compare and predict chemical structures, properties and reactivity and solve chemistry related problems. Employ critical thinking and scientific reasoning to design and safely implement laboratory experiments and keep the records of the same. Compile, interpret and analyze the qualitative/ quantitative data and communicate the same in a scientific literature. **Paper: SE-5034: BUSINESS SKILLS FOR CHEMISTS** After completion of this course, students shall be able to explain and or analyze the important steps of business operations, finance and intellectual property as applied to chemical industry. **Paper: SE-5044: INTELLECTUAL PROPERTY RIGHT** After completing this course, students will have in depth understanding about the importance and types of IPR. This course will also provide the clarity on the legal and economic aspects of the IP system.
SEM –VI	**Paper RE-6016: GREEN CHEMISTRY** After completion of this course students are able to know about green chemistry, which will make them conversant with applications of green chemistry to organic synthesis. Students will be prepared for taking up entry level jobs in the chemical industry. They will also have the option of studying further in the area. At the same time through experiments students are able to learn to extract biodiesel from vegetable oil, Principles of atom economy (avoiding waste), use of enzyme as catalyst, Diels-Alder reaction in water, alternative sources of energy etc.

	Paper: RE-6026: INDUSTRIAL CHEMICALS AND ENVIRONMENT After successful completion of this course, students would have learnt about the manufacture, application and safe ways of storage and handling gaseous and inorganic industrial chemicals. Students will get to know about industrial metallurgy and the energy generation industry. Students will also learn about environmental pollution by various gaseous, liquid waste and nuclear waste management, their safe disposal and the importance of environment friendly "green chemistry" in chemical industry. At the same time through experiments students are able to learn to analyse dissolved oxygen in water, COD, BOD, % of Chlorine in bleaching powder, estimation of SPM in air sample, preparation of borax/ boric acid etc. **Paper: RE-6036: INORGANIC MATERIALS OF INDUSTRIAL IMPORTANCE** This course will establish the basic foundation of industrial inorganic chemistry among the students. This will be helpful for pursuing further studies of industrial chemistry in future. Experiments will help the students to gather the experience of qualitative and quantitative chemical analysis. Students will be capable of doing analysis of the inorganic materials which are used in our daily life. They will have insight of the industrial processes. **Paper: RE-6046: RESEARCH METHODOLOGY FOR CHEMISTRY** After completion of this course students should be able to construct a rational research proposal to generate fruitful output in terms of publications and patents in the field of chemical science. **Paper: SE-6014: CHEMISTRY OF COSMETICS & PERFUMES** After completion of this course, students will learn about the preparation and chemistry involved with the production of different cosmetics. This may encourage students to take up entry level jobs at cosmetics industry or venture into commercial production of cosmetics as an entrepreneur.

	Paper: SE-6024: PESTICIDES CHEMISTRY After completion of this course, students will be able to explain or describe and critically examine different types of pesticides, their activity/toxicity and their applications and the need for the search of an alternative based on natural products. **Paper: SE-6034: FUEL CHEMISTRY** At the end of this course students will learn about the classes of renewable and non-renewable energy sources. Students will learn about the composition of coal and crude petroleum, their classification, isolation of coal and petroleum products and their usage in various industries. They will also learn to determine industrially significant physical parameters for fuels and lubricants.

Program Outcomes and Course Outcomes

Under Graduate program In B.Sc. Chemistry (HC)

Program Outcomes	•To understand the basic facts and concepts in Chemistry •To understand the importance of Chemistry in daily life •To develop a better understanding and reasoning of facts •To skill-up for basic analytical tools •To skill-up for various laboratory techniques used in pharmaceutical laboratories and chemical industries. • To make efficient for various spectrometric analyses
Course Outcome	
SEM-I	**Paper CHE-HC-1016: INORGANIC CHEMISTRY-I** On successful completion, students would have clear understanding of the concepts related to atomic and molecular structure, chemical bonding, periodic properties and redox behaviour of chemical species. Students will also have hands on experience of standard solution preparation in different concentration units and learn volumetric estimation through acid-base and redox reactions. **LAB: PRACTICAL** After completion of this course, students will be

	able to learn titrimetric analysis, Acid base titration, oxidation- reduction titration etc. .**Paper CHE-HC-1026: PHYSICAL CHEMISTRY I** In gaseous state unit the students will learn the kinetic theory of gases, ideal gas and real gases. In liquid state unit, the students are expected to learn the qualitative treatment of the structure of liquid along with the physical properties of liquid, viz, vapour pressure, surface tension and viscosity. In the molecular and crystal symmetry unit they will be introduced to the elementary idea of symmetry which will be useful to understand solid state chemistry and group theory in some higher courses. In solid state unit the students will learn the basic solid state chemistry application of x-ray crystallography for the determination of some very simple crystal structures. The students will also learn another important topic "ionic equilibria" in this course. **LAB: PRACTICAL** This course provides advance physical laboratory experiments like determination of viscosity, surface tension of a liquid, pH etc. Student will be able to correlate the importance the theory with the practical experiments.
SEM –II	**Paper CHE-HC-2016: ORGANIC CHEMISTRY I** Students will be able to identify different classes of organic compounds, describe their reactivity and explain/analyze their chemical and stereo chemical aspects. **Paper CHE-HC-2026: PHYSICAL CHEMISTRY II** In this course the students are expected to learn laws of thermodynamics, thermochemistry, thermodynamic functions, relations between thermodynamic properties, Gibbs Helmholtz equation, Maxwell relations etc. Moreover the students are expected to learn partial molar quantities, chemical equilibrium, solutions and colligative properties. After completion of this course, the students will be able to understand the chemical systems from thermodynamic point of view. **LAB: PRACTICAL** After completion of this course students will be able to analyze the organic sample qualitatively. This will help students to work in some laboratory and find the chemical composition of an unknown organic compound. Students will be able to describe and classify

	organic compounds in terms of their functional groups and reactivity. Also they are able to analyze heat capacity, calculation of enthalpy, solubility etc.
SEM –III	**Paper CHE-HC-3016: INORGANIC CHEMISTRY-II** On successful completion of this course students would be able to apply theoretical principles of redox chemistry in the understanding of metallurgical processes. Students will be able to identify the variety of s and p block compounds and comprehend their preparation, structure, bonding, properties and uses. Experiments in this course will boost heir quantitative estimation skills and introduce the students to preparative methods in inorganic chemistry. **Paper CHE-HC-3026: ORGANIC CHEMISTRY-II** Students will be able to describe and classify organic compounds in terms of their functional groups and reactivity. **Paper CHE-HC-3036: PHYSICAL CHEMISTRY-III** The students are expected to learn phase rule and its application in some specific systems. They will also learn rate laws of chemical transformation, experimental methods of rate law determination, steady state approximation etc. in chemical kinetics unit. After attending this course the students will be able to understand different types of surface adsorption processes and basics of catalysis including enzyme catalysis, acid base catalysis and particle size effect on catalysis. **LAB: PRACTICAL** After completion of this course, students will be able to learn iodometric titration, Inorganic compound preparation, Organic compound preparation, determination of CST, construction of phase diagram, Kinetics of reactions etc.
SEM –IV	**Paper CHE-HC-4016: INORGANIC CHEMISTRY-III** On successful completion, students will be able name coordination compounds according to IUPAC, explain bonding in this class of compounds, understand their various properties in terms of CFSE and predict reactivity. Students will be able to appreciate the general trends in the properties of transition elements in the

	periodic table and identify differences among the rows. Through the experiments students not only will be able to prepare, estimate or separate metal complexes/compounds but also will be able to design experiments independently which they should be able to apply if and when required. **Paper CHE-HC-4026: ORGANIC CHEMISTRY-III** Students shall demonstrate the ability to identify and classify different types of N-based derivatives, alkaloids and heterocyclic compounds/explain their structure mechanism and reactivity/critically examine their synthesis and reactions mechanism. **Paper CHE-HC-4036: PHYSICAL CHEMISTRY-IV** In this course the students will learn theories of conductance and electrochemistry. Students will also understand some very important topics such as solubility and solubility products, ionic products of water, conductometric titrations etc. The students are also expected to understand the various parts of electrochemical cells along with Faraday's Laws of electrolysis. The students will also gain basic theoretical idea of electrical & magnetic properties of atoms and molecules. **LAB: PRACTICAL** After completion of this course students will be able to learn gravimetric analysis, Inorganic preparation, Chromatography, detection of N,S, X & other functional groups, determination of cell constant, equivalent conductance, Potentiometry etc.
SEM –V	**Paper CHE-HC-5016: ORGANIC CHEMISTRY-IV** Students will be able to explain/describe the important features of nucleic acids, amino acids and enzymes and develop their ability to examine their properties and applications. **Paper: CHE-HC-5026: PHYSICAL CHEMISTRY V** After completion of this course the students are expected to understand the application of quantum mechanics in some simple chemical systems such as hydrogen atom or hydrogen like ions. The students will also learn chemical bonding in some simple molecular systems. They will able to understand the basics of various kinds of spectroscopic techniques and photochemistry.

	Paper: CHE-HE-5016: APPLICATIONS OF COMPUTERS IN CHEMISTRY After the completion of this course it will help the student to interpret laboratory data, curve fitting of experimental work, also performs quantum mechanical calculations for various molecular models. **Paper: CHE-HE-5026: ANALYTICAL METHODS IN CHEMISTRY** On successful completion students will be have theoretical understanding about choice of various analytical techniques used for qualitative and quantitative characterization of samples. At the same time through the experiments students will gain hands on experience of the discussed techniques. This will enable students to take judicious decisions while analyzing different samples. **Paper CHE-HE-5036: MOLECULAR MODELLING & DRUG DESIGN** Students will be able to identify basic components of computer and programming as applied to computer assisted design and modelling of molecules. **Paper: CHE-HE-5046: NOVEL INORGANIC SOLIDS** After the completion of this course it will also be possible for the students to opt for studying an interdisciplinary master's programme with an emphasis on the synthesis and applications of various materials or take up a job in the materials production and/or processing industry. **Paper: CHE-HE-5056: POLYMER CHEMISTRY** After completion of this course the students will learn the definition and classifications of polymers, kinetics of polymerization, molecular weight of polymers, glass transition temperature, and polymer solutions etc. They also learn the brief introduction of preparation, structure and properties of some industrially important and technologically promising polymers. **Paper:CHE-HE-5066:INSTRUMENTAL METHODS OF CHEMICAL ANALYSIS** Students shall be able to explain the theoretical basis of different analytical techniques, identify the experimental requirements and compare/analyze the data/results thereof.
	Paper CHE-HC-6016: INORGANIC CHEMISTRY-IV By studying this course the students will be

SEM –VI	expected to learn about how ligand substitution and redox reactions take place in coordination complexes. Students will also learn about organometallic compounds, comprehend their bonding, stability, reactivity and uses. They will be familiar with the variety of catalysts based on transition metals and their application in industry. On successful completion, students in general will be able to appreciate the use of concepts like solubility product, common ion effect, pH etc. in analysis of ions and how a clever design of reactions, it is possible to identify the components in a mixture. With the experiments related to coordination compound synthesis, calculation of 10Dq, controlling factors etc. will make the students appreciate the concepts of theory in experiments. **Paper CHE-HC-6026: ORGANIC CHEMISTRY-V** Students will be able to explain/describe basic principles of different spectroscopic techniques and their importance in chemical/organic analysis. Students shall be able to classify/identify/critically examine carbohydrates, polymers and dye materials. **Paper CHE-HE-6016 : GREEN CHEMISTRY** Apart from introducing learners to the principles of green chemistry, this course will make them conversant with applications of green chemistry to organic synthesis. Students will be prepared for taking up entry level jobs in the chemical industry. They also will have the option of studying further in the area. **Paper CHE-HE-6026: INDUSTRIAL CHEMICALS AND ENVIRONMENT** After successful completion of the course, students would have learnt about the manufacture, applications and safe ways of storage and handling gaseous and inorganic industrial chemicals. Students will get to know about industrial metallurgy and the energy generation industry. Students will also learn about environmental pollution by various gaseous, liquid wastes and nuclear wastes and their effects on living beings. Finally, the students will learn about industrial waste management, their safe disposal and the importance of environment friendly “green chemistry” in chemical industry. **Paper CHE-HE-6036: INORGANIC MATERIALS OF INDUSTRIAL IMPORTANCE** This course will establish the basic foundation of

	industrial inorganic chemistry among the students. This will be helpful for pursuing further studies of industrial chemistry in future. Experiments will help the Students to gather the experience of qualitative and quantitative chemical analysis. Students will be capable of doing analysis of the inorganic materials which are used in our daily life. They will have insight of the industrial processes. **Paper: CHE-HE-6046: RESEARCH METHODOLOGY FOR CHEMISTRY** After completing this course, students should be able to construct a rational research proposal to generate fruitful output in terms of publications and patents in the field of chemical sciences. **Paper CHE-HE-6056: DISSERTATION** This course is introduced to make familiar with the research methodology. Student will be able to do project work on known problems after completion of this course. They will learn how to write a project report. They will be skilled in writing the proposal, literature review, objective, methodology, results, discussion, conclusion and references. This is very important to carry forward their career in research and development.

DEPARTMENT :: PHYSICS

Bachelor programme in Physics	
Programme outcome	After completion of the programme in Physics, Students are intended to develop the ability to think critically, logically and analytically and hence use the physical reasoning in everyday life and a conceptual understanding of physics principles. They will be able to demonstrate concepts in Newtonian Mechanics, Electromagnetism, Thermodynamics and Quantum mechanics. They will be able to translate a physical description to a mathematical equation and conversely explain the physical meaning of the mathematics, represent key aspects of physics through graphs and diagrams and use geometric arguments in problem-

	solving.
Programme specific outcome	The completion of the Bachelor programme in physics shall enable a student to i) communicate Physics effectively by theoretical, experimental and graphic means. ii) familiarize with hands-on training in the furnished and equipped laboratory for practical verification of the physical theories that they learn during class lectures. It makes the students eligible for the further post-graduate studies, in physics, electronics, instrumentation, computer applications etc. iii) learn the basic mathematical tools, needed to understand different branches of Physics. They are trained to apply these techniques through numerical exercises. iv) identify applications of physics in other disciplines and in the real world, leading to enhancement of career prospects in a plethora of fields. v) appreciate the requirement of lifelong learning through continued education and research. vi) utilize physics to solve theoretical and applied problems by critical understanding, analysis and synthesis.
CBCS	
Course Outcome	The course in physics includes different properties of natural objects, like mechanical, thermal, electrical, magnetic properties, quantum mechanics, astrophysics etc. Mathematical Physics After successful completion of the course students will be able to understand vector, and its application in Various field, differential equation , solving method of power series, different co-ordinate system, concepts of probability and error, properties of matrix, fourier series, Laplace transformation, tensor and its application. Mechanics

	On successful completion of the course students should be able understand types of frame of reference, Newtonian motion, Galilien transformation, projectile motion, work and energy, collision, central force, oscillation, special theory of relativity. Electricity & Magnetism After successful completion of this course, students will be able to understand electric and magnetic fields in matter, dielectric and magnetic properties of matter, electromagnetic induction, applications of Kirchhofff's law in different circuits, applications of network theorem in circuits. Waves and Optics After successful completion of this course, students will be able to understand superposition of harmonic wave and oscillations, different types of wave motions, interference and interferometer, diffraction, holography. Thermal Physics and Statistical mechanics Upon successful completion, students will have the knowledge and skills to identify and describe the statistical nature of concepts and laws in thermodynamics, in particular: entropy, temperature, thermodynamics potentials, freeenergies, fundamentals of the kinetic theory of gases, Maxwell-Boltzman distribution law, equipartition of energies, mean free path of molecular collisions, viscosity, thermal conductivity, diffusion and Brownian motion, black body radiations, Stefan- Boltzmann's law, Rayleigh-Jean's law and Planck's law and their significances, quantum statistical distributions, viz., the Bose- Einstein statistics and the Fermi-Dirac statistics. In the laboratory course, the students will be able to measure of Planck's constant using black body radiation, determine Stefan's Constant, coefficient of thermal conductivity of a bad conductor and a good conductor, determine the temperature coefficient of resistance, study variation of thermo emf across two junctions of a thermocouple with temperature

	etc. Digital and Analog systems and applications After successful completion of the course students will be able to understand the working principle of CRO, develop a digital logic and apply it to solve real life problems, analyze, design and implement combinational logic circuits, class, analyze digital system design using PLD, simulate and implement combinational and sequential circuits. Students will be able to understand about the physics of semiconductor p-n junction and devices such as rectifier diodes, zener diode, photodiode etc. and bipolar junction transistors, transistor biasing and stabilization circuits, the concept of feedback in amplifiers and the oscillator circuits, operational amplifiers and their applications. Elements of modern physics On completion of the course students will be ableto understand modern development in Physics,starting from Planck's law, it development of theidea of probability interpretation and theformulation of Schrodinger equation. Studentswill also get preliminary idea of structure ofnucleus, radioactivity Fission and Fusion and Laser. Quantum Mechanics & application, On successful completion of the course students will be able to understand the principles inquantum mechanics, such as the Schrödinger equation, the wave function, the uncertainty principle, stationary andnon-stationary states, time evolution of solutions, as well as the relation between quantum mechanics and linearalgebra. Students will be able to solve the Schrödinger equation for hydrogen atom. Students will have the concepts ofangular momentum and spin, as well as the rules for quantization and addition of these, spin-orbit coupling andZeeman Effect. Solid State Physics

	On successful completion of the course students should be able to explain the main features ofcrystal lattices and phonons, understand the elementary lattice dynamics and its influence on the properties ofmaterials, describe the main features of the physics of electrons in solids; explain the dielectric ferroelectric andmagnetic properties of solids and understand the basic concept in superconductivity. Electromagnetic theory On successful completion of the course students will acquire the concepts of Maxwell's equations,propagation of electromagnetic (EM) waves in different homogeneous-isotropic as well as anisotropic unbounded andbounded media, production and detection of different types of polarized EM waves, general information aswaveguides and fibre optics. Nuclear and particle physics Upon completion of this course, students will have the understanding of the sub atomic particlesand their properties. They will gain knowledge about the different nuclear techniques and their applications indifferent branches of Physics and societal application. The course will develop problem based skills and theacquire knowledge can be applied in the areas of nuclear, medical, archeology, geology and other interdisciplinaryfields of Physics and Chemistry. Classical Dynamics The emphasis of the course is on applications in solving problems of interest to physicists. Students are to beexamined on the basis of problems, seen and unseen.Upon completion of this course, students will have the overview of Newton's Laws of Motion,Special Theory of Relativity by 4-vectoer approach and fluids. Students will also have the understanding of theLagrangian and Hamiltonian of a system. By the end of this course, students will be able to solve the seen orunseen problems/numericals in classical mechanics.

	Astronomy & Astrophysics Upon completion of this course, students will be able to understanding the origin and evolution ofthe Universe. The course will give a comprehensive introduction on the measurement of basic astronomicalparameters such as astronomical scales, luminosity and astronomical quantities. It will give an overview onkey developments in observational astrophysics. Students will have the idea of the instruments implemented forastronomical observation, the formation of planetary system and its evolution with time, the physical propertiesof Sun and the components of the solar system; and stellar and interstellar components of our Milky Waygalaxy. Students will have the understanding of the origin and evolution of galaxies, presence of dark matterlarge scale structures of the Universe. Physics Workshop Skills The aim of this course is to enable the students to familiar and experience with various mechanical and electrical tools through hands-on mode. COMPUTATIONAL PHYSICS The aim of this course is not just to teach computer programming and numericalanalysis but to emphasize its role in solving problems in Physics. Highlights the use of computational methods to solve physical problems. Use of computer language as a tool in solving physics problems (applications). Course will consist of hands on training on the Problem solving on Computers. Experimental Technique After completion of the course students will be able to know about error in measurements, signals and systems, shielding and grounding, transducers and industrial instrumentation, digital multimeter, impedence bridges and Q-meter, vacuum systems and use in different areas of our day to day life.

Non-CBCS	
Course Outcome	Paper CO1 (a) Mathematical Methods – I (b) Mechanics Students should be able to understand vector analysis and the applications of gradient, divergence and curl in various physical phenomena, Inertial and non-inertial reference frames, Newtonian motion, Coriolis Force, Work- energy theorem, Centre of Mass, Angular Momentum and Gravitation. Paper CO2 (a) Waves and Oscillations (b) Ray Optics Students will be able to understand superposition of harmonic oscillations, Wave Motion, Sound Wavesand Fourier Analysis, Fermat's Principles, Matrix Method, Lens Systems and Defects of Image. Paper CO3 (a) Test of Laboratory Skill (b) Practical Upon successful completion of the course, the student will be exposed to important skills in electronicssuch as the identification of active and passive components in an electronic circuit, usage of a multi-meterand cathode-ray oscilloscope, soldering of electronic circuits, usage of

	measuring instruments such as travelling microscope, polarimeter and spectrometer, experiments such as the Melde's experiment, Searle'sapparatus, torsional oscillation, Jaeger's method and so on. Paper CO4 (a) Mathematical Methods – II (b) Properties of Matter Successful students should be able to understand integration of vector and Curvilinear Coordinate systems,Gamma and Dirac Delta Functions, Elasticity, Surface Tension and Viscosity Paper CO5 Heat and Thermodynamics Upon successful completion of the course, the student will be able to understand the kinetic theory of gases,equation of an ideal gas and the Van der Waals' equation of state, the three laws of thermodynamics,Enthalpy, Entropy, Stefan- Boltzmann Law, Wein's Displacement Law. Paper CO6 Practical Upon successful completion of the course, the student will be exposed to experimental methods such as the determination of focal length of a given convex mirror, Joule's calorimeter, conversion of a galvanometerto a voltmeter, usage of a potentiometer, determination of the thermal conductivity ofa given material and so on. Paper CO7 (a) Mathematical Methods – III (b) Electrostatics Upon successful completion of the course, the studentwill be able to understand Linear Algebra,Coordinate Transformations, Gauss' Law, Laplace and Poisson's Equation, Method of Electrical Imageand Dielectrics

	Paper CO8 (a) Current Electricity (b) Magnetostatics Upon successful completion of the course, the student will be able to understand the Kirchoff's Law ofElectrical Network problems, Electromagnetic Induction, Ballistic Galvanometer, AlternatingCurrent and RLC Circuit, Physics of a Transformer, Lorentz Force, Biot-Savart's Law, Divergence andCurl of a Magnetic Field and the Ampere's Circuital Law. Paper CO9 Practical Upon successful completion of the course, the student will be exposed to the usage of instruments such asthe deflection and vibration magnetometer, tangent galvanometer and copper voltmeter, and determination of electrical constants using potentiometer and meter bridge. Paper CO10 (a) Mathematical Methods – IV (b) Introduction to Computer and Computer Programming Upon successful completion of the course, the student will be able to understand the Frobenius method forthe series solution of ordinary differential equations and the special functions – Legendre, Hermite and Laguerre Polynomials, Spherical Harmonics, Probability theory and Probability Distribution Functionsand Fortran Programming. Paper CO11 (a) Wave Optics (b) Special Theory of Relativity Upon successful completion of the course, the student will be able to understand and appreciate thephysics of Interference, Diffraction and Polarisation. In addition to this, the student will also be able tounderstand Galilean and Lorentz Transformation and Relativistic Momentum

	and Energy and Space-time. Paper CO12 Practical Upon successful completion of the course, the student will be exposed to experimental methods andinstruments such as the Schuster's method, Newton's ring arrangement, Kater's pendulum, variation ofoptical rotation, resolving power of a plane transmission grating, spectrophotometer, magnifying power of a telescope and so on. Paper CO13 (a) Mathematical Methods - V (b) Classical Mechanics Upon successful completion of the course, the student will be able to understand the mathematicalprinciples of complex numbers, analyticity of a complex function, singularities, Laurent and Taylor Series, Residue Integration, Central Force Motion, D-Alembert's Principle and the Lagrange's equation of motion, application of Lagrangian formalism in simple mechanical systems and Poisson'sBrackets. Paper CO14 Atomic Physics Upon successful completion of the course, the student will be able to understand the Rutherford's Model,Alpha-Scattering Experiment, Atomic Spectra, Vector Atom Model, X-Rays and Scattering of Light. Paper CO15 (a) Quantum Mechanics (b) Astrophysics Upon successful completion of the course, the student will be able to understand the reason for the failureof classical mechanics and the need for quantum mechanics in studying microscopic systems, Wave-Particle Duality, physical interpretation of Wave-function, Normalization, Group and Phase Velocity,Heisenberg's Uncertainty

	Principle, Dirac's operator formalism of quantum mechanics, the SchrodingerEquation, Celestial Coordinate Systems, Concept of Time, Stellar Magnitude and Stellar Classificationsystem. Paper CO16 Electronics Upon successful completion of the course, the student will be able to understand the working of a PNjunction diode, Bipolar Junction Transistor, Operational Amplifier, Multivibrators, Modulation– Frequency and Amplitude Modulation and Digital Electronics. Paper CO17 Practical Upon successful completion of the course, the student will be exposed to the study and analysis of thehydrogen spectrum, characteristic curve of a photo cell, determination of the Planck's and Stefan'sconstant, Platinum Resistance Thermometer and Thermocouple. Paper CO18 Practical Upon successful completion of the course, the student will be exposed to the assembly and frequencyresponse of an operational amplifier, RC coupled common emitter amplifier, multivibrator, forward biascharacteristics of a semiconductor diode, reverse bias characteristics of a Zener diode, verification of theDe Morgan's theorem using IC 7400 and 7402, assembly of the digital logic gates and the usage ofMicrosoft Excel for graphical analysis Paper CO19 Nuclear Physics Upon successful completion of the course, the student will be able to understand the nuclear forces andstability of an atomic nucleus, the three processes of nuclear decay – Alpha, Beta and Gamma Decay,Nuclear models, Nuclear Reactions, Accelerators, Detectors and Cosmic

	Rays. Paper CO20 (a) Mathematical Methods (b) Solid State Physics Upon successful completion of the course, the student will be able to under the physics of tensor analysisand the mathematical principles, crystallography, crystal bonding, Free electron theory of metals,Superconductivity and Magnetic properties of Solids. Paper CO21 (a) Modern Optics (b) Electromagnetic Theory Upon successful completion of the course, the student will be able to understand and appreciate themodern optical technologies such as crystals, lasers, holography, optical fibers, spectrography, Maxwell'sEquations of Electromagnetic Theory, Fresnel's equations and Snell's law. Paper CO22 (a) Statistical Mechanics (b) Computer Application Upon successful completion of the course, the student will be able to understand the physics of statisticalmechanics and important statistical distributions Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein Statistics and their applications in explaining the numerous observed experimental phenomena in quantum systems. In addition to this, the students shall also be exposed the programming of numerical procedures in FORTRAN/C and should be able to solve problems such as the roots of a nonlinear equation, least-squarefitting, numerical solution of differential equations using the 4th order Runge-Kutta method andintegration of functions using the Simpson's rule.

	Paper CO23 Practical Upon successful completion of the course, the student will be exposed to the analysis of the variation inpotential drop across the components in an LCR circuit, determination of the Q-factor of an LCR circuit,Callender and Bern's Method, Anderson's Bridge, Half-wave and Full-wave rectifier, detection of cosmicrays using a Geiger-Muller Counter and the usage of a CRO in electronics. Paper CO24 (a) Project (b) Computer Programming Upon successful completion of the course, the student will be exposed to the computer programming ofmeasurement of the mean, standard deviation and standard error of given experimental data, solution of linear simultaneous and quadratic equations, least square fitting of data, generation of Fibonacci sequenceand statistical analysis of given data using Microsoft Excel. Furthermore, the project work pertaining to anexperiment with the syllabus of Physics would provide the students with performing, analysis andsubsequent reporting of experiments under the supervision of a professor.

DEPARTMENT :: MATHEMATICS

Bachelor programme in Mathematics	
Program Outcome	After completion of graduation Students will acquaint the basic concepts fundamental principles and theories of science related to various phenomenon and their relevance in the day-to-day life. To enable the students to analyzethe scientific data critically and systematically and to think creatively to propose new ideas
Program Specific outcomes	Students will able to demonstrate basic manipulative skills in algebra, geometry,trigonometry, calculus, astronomy, etc. Also they able to demonstrate proficiency in establishing validity of

	mathematical theories. Students are able to learn about the use of computer programming in solving mathematical problems.
Course	Outcomes
M104- Algebra and Trigonometry	Familiarize the student with the basic concepts f algebraic structure such as relation ,functions, symmetry , equivalent relation, group and Trigonometry i.e triangle properties.
M105- Calculus	To acquaint knowledge on the ability to find the effects of changing conditions on a system. To inculcate knowledge on the ability to sketch curves in a plane using its mathematical properties in different coordinate systems.
M – 204 Coordinate Geometry	To acquaint knowledge on the transformation of Coordinate axes. Gives the learners idea of two dimensional and three dimensional coordinate geometry. Gives the knowledge about different conics and their properties.
M205- Differential Equations	To inculcate knowledge on the Origin of ordinary differential equations, degree and order of ordinary differential Equations. Gives the learners idea of transformation of the equation by changing the dependent variable, independent Variable, method of variation of parameters.
M304-Abstract Algebra	To inculcate knowledge on the homomorphism of groups,rings. Also gives the idea of Sylow's theorems and its applications.
M305-Linear Algebra and Vector	Gives the learners idea of matrices, vectors operations on matrices and vectors. To inculcate knowledge on the matrix representation of linear transformation, compute the characteristic polynomial, eigenvalues, eigenvectors,andeigenspace.
M404-Real Analysis	To inculcate knowledge on the real number systems R as a complete Archimedean ordered field. Gives the learners idea about derivability of the functions such as Taylor's theorem, Maclaurin's infinite series.
M405-Mechanics	To inculcate knowledge on the parallel forces, couples, reduction and center of gravity on solid and plane, etc. Gives the learners idea about stable and unstable equilibrium.

M501-Real and Complex Analysis	To inculcate knowledge on the study of real number system. To inculcate knowledge on complex numbers and their properties, to introduce the basic ideas of analysis for complex functions with visualization through relevant practical.
M502- Topology	To inculcate knowledge on understanding the notation of distance functions, topological structure and their properties with mathematical proofs.
M503-Spherical Trigonometry and Astronomy	To inculcate knowledge on moments and products of inertia, theorem of six constants , motion of a body in two dimension and Lagrange's equation.
M505-Probability	To inculcate knowledge on the basic statistical concepts and tools which are needed to study situations involving uncertainty or randomness , to render the students to several examples and exercises that blend their everyday experiences with their scientific interests.
M506-Optimization Theory	The course will enable the students to learn about the graphical solution of linear programming problems with two variables and learn about the relation between basic feasible solution and extreme points.
M601-Hydrostatics	To inculcate knowledge on the physical properties of a fluid. Gives the learners idea of calculating the pressure distribution for in compressible fluids. Also gives the idea of calculating the hydrostatic pressure and force on plane and curved surface.
M602-Numerical Analysis	To inculcate knowledge on algebraic Equations solved by numerical methods, this will enable the students to learn some numerical methods to find the zeros of nonlinear functions on a single variable and solution of a system of linear Equations to know about methods to solve systems linear equation, interpolation techniques to compute the values for tabulated functions at points not in the table, applications of numerical differentiation and integration to convert differential Equations into difference equation for numerical solutions.

M603 Computer Programming in C	Able to handle nonlinear Equations as those can't be handled analytically. This course has equipped the students to carry out long and tedious computational works particularly when they go for research in some application oriented field and after knowing programming in c, the students can easily shift over to any other programming which are used in different fields.
M604-Discrete Mathematics	Gives the learners idea of fundamental ideas of number theory, congruence and basic properties of congruence's, linear congruence and their solutions, diophantine Equation, linear diophantine equation. To inculcate knowledge on prepositional Calculus and boolean Algebra.
M605-Graph and Combinatorics	Enables the learners in understanding the concepts of graph theory and combinatorics. To inculcate knowledge on counting principles, permutations, pigeonhole principle, understand the basics of graph theory and learn about social networks.
M606-Project	Make research proposal . Construct tool of data collection . Understand the process of data analysis .writing research report.