# OFFICE OF THE PRINCIPAL, NORTH GAUHATI COLLEGE P. O. College Nagar, Guwahati-781031

অধ্যক্ষৰ কাৰ্য্যালয়,



**উত্তৰ গুৱাহাটী মহাবিদ্যাল**য় গুৱাহাটী-৭৮১০৩১

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# PROGRAM OUTCOMES, PROGRAM-SPECIFIC OUTCOMES, AND COURSE OUTCOMES (non-CBCS)

# NORTH GAUHATI COLLEGE

Dr. Dilip Das Principal North Gauhati College



Principal North Gauhati Coliege

# Program Outcome, Program - Specific Outcome and Course Outcome (non-CBCS)

# **Programs offered:**

1. **Bachelor of Arts (B. A.)**: The college offers undergraduate degree courses in Arts in the subjects Anthropology, Assamese, Economics, Education, English, Geography, History and Political Science.

2. **Bachelor of Science (B. Sc.)**: Undergraduate degree courses in science offered by the college include the subjects Anthropology, Botany, Chemistry, Economics, Electronics, Geography, Mathematics, Physics and Zoology.

3. Bachelor of Vocational Studies (B. Voc.) : The college provides undergraduate vocational degree courses.

# B.A. and B.Sc. major program in Anthropology

**Program specific outcome:** Upon completion of the course, students will be able to demonstrate a broad and comparative understanding of humanity, the diversity of world cultures, and an understanding of core tenets of the four-field approach (sociocultural, archaeological, linguistics and biological) within anthropology as a discipline.

# **Course outcome:**

Paper M 101: General Anthropology

It should enable to comprehend the definition, meaning, scope and subject matter of Anthropology.

Paper M 102: Physical Anthropology

It enables learning about the scope, history and development of physical anthropology and its modern trends, man's place in the animal kingdom, and the idea of race.

Paper M 103 (Practical): Physical Anthropology

It deals with the drawing, description and identification of different bones of human skeleton.

Paper M 201: Prehistoric Anthropology

This part enables learning about methods of studying prehistoric archaeology, divisions of prehistoric period, and prehistoric lithic technology.

Paper M 202: Social and Cultural Anthropology :

This section illucidates relationships of anthropology with other disciplines and some emerging fields, concept of society and culture.

Paper M 203 (Practical): Physical Anthropology

Imparts practical learning of Somatometric Measurement and Somatoscopy.

Paper M 301: Physical Anthropology

This part deals with the evolutionary changes in human skeleton, elementary genetics, elementary statistics, and racial classification of mankind.

Paper M 302: Social Anthropology

It deals with the concepts of marriage, family, kinship, property, social control, political organization and law.

Paper M 303(Practical): Prehistoric Anthropology

It imparts basic practical knowledge of prehistoric technology

Paper M 401: Prehistoric Anthropology

It enables learning of Tool Typology, Bone tool Industry, Lithic technology and Methods of Archaeological classification.

Paper M 402: Social Anthropology

This part should enable learning of theoretical perspectives on culture, economy, socio-cultural dynamics, language and arts.

Paper M 403(Practical): Prehistoric Anthropology

Students are enabled to learn identification of the Paleolithic and Mesolithic periods.

Paper M 501: Physical Anthropology (Human Evolution)

It enables students' learning on the theories of evolution, evolution of man, and the study of fossils.

Paper M 502: Prehistoric Anthropology

It deals with Chronology and Dating Methods, Palaeoecology, post-pleistocene climatic changes, and hominid cultural development in Europe and Africa.

Paper M 503: Social Anthropology (Indian Anthropology and Anthropology of Religion)

It deals with the concepts of religion, supernaturalism and the Indian society.

Paper M 504: Social Anthropology (Field Methodology, Tribes of North East India)

This part enables learning on field techniques of social anthropology and the tribal communities of India.

Paper M 505 (Practical): Physical Anthropology

It enables students' practical learning of comparative anatomy, fossil man, Dermatoglyphics, and physiological anthropology.

Paper M 506 (Practical): Prehistory & Social Anthropology

Deals with practical learning of Neolithic tools, pottery and museum method.

Paper M 601: Physical Anthropology (Human Genetics)

This part should enable student learning of the different laws of genetics, variation in genetic characters and the concept of growth and development.

Paper M 602: Prehistoric Anthropology

This should enable learning of the different concepts of Archaeology and reconstruction and hominid cultural development in India.

Paper M 603: Social Anthropology (Indian Anthropology)

This should make students understand the diversity of Indian caste system and the basis of Anthropology in India.

Paper M 604: Applied Anthropology

This should enable learning of the scopes of Applied Anthropology, applications of physical anthropology, its relation to race, and Eugenics.

Paper M 605(Practical): Physical Anthropology

This should enable practical learning of the different linear and angular measurements involved in physical anthropology, and the laboratory method of determination of human blood groups.

Paper M 606(Practical): Social Anthropology (Technology and Field work)

This should practical understanding of implements illustrative of material culture and subsistence economy of the tribal and non-tribal people of North East India.

# **B.A.** major program in Assamese

**Program specific outcome:** On completion of this course, students will attain knowledge on the Assamese language, culture and tradition. This course aims to develop skills in creative writing of Assamese prose and poetry. Competence in the language and grammar will enable students to improve communicative skills. The course also aims to provide a historical insight into the development of the Assamese language and literature.

#### **Course outcome:**

Paper M-104: Asomiya Sahityar Buranji aru Lipi

In this paper students will learn about the Assamese folk literature, old literature and Development of Assamese Script.

Paper M-105: Prasin Asomiya Kabita

In this paper students will learn about the Assamese old Poetry.

Paper M-204: Asomiya Sahityar Buranji (Uttar Sankari jugar pora Abahan jugoloi)

In this paper students will learn about the Assamese literature from the post Sankardeva Period to Modern Period

Paper M-205: Adhunik Asomiya Kabita

In this paper students will learn about the Assamese poetry from the Romantic period to Modern period.

Paper M-304: Asomiya Bhasa

In this paper students will learn about Rise and Development of Assamese Language and Assamese Dialect.

Paper M-305: Special Author Sankardeva and Lakshminath Bezbaruah

In this paper students will learn about the one prominent Assamese writers contribution to Assamese Literature.

Paper M-401: Asomiya byakaran

In this paper students will learn about the History of Assamese Grammar and Classification of Grammar, Elements of Grammar like Phonology and Morphological aspects.

Paper M-402: Asomiya jati aru sanskritir porisoymulak adhyayan

In this paper students will learn about the People of Assam and their ethnic groups, Differentiation, Classification and Scope of culture of Assam.

Paper M-403: Field Study

It impact practical Knowledge to students by field visit Different Places of Assam to learn there ethnic group, Architecture, Sculpture, Inscription, Religion And Tradition and different religions institution, folk belief, oral literature and perfuming art.

Paper M-501: Puroni Asomiya Natok

In this paper students will learn about the Assamese Drama like Sankardeva's Rukmini Haran, Madhavdeva's ArjunBhanjan, Shriram Ata's Suvadraharan Nat and Gopal Ata's Janmayatra.

Paper M-502: Puroni Asomiya Katha Sahitya

In this paper students will learn about trends of Assamese prose from Bhattadeva to Nathan Brown.

Paper M-503: Brajabuli sahityar adhyayan

In this paper students will learn about the Rise and Development of Brajabuli Literature, characteristics of various Brajabuli Literature.

Paper M-504: Pali-Prakrit sahitya aru byakaran

In this paper students will learn about Rise And Development of Pali-Pakrit Literature.

Paper M-505: Sahitya samalosana

In this paper students will learn about the Western Literature and Assamese Criticism

Paper M-506: Bhasar swarup

In this paper students will learn about the elements of the language and Descriptive Linguistics.

Paper M-601: Adhunik Asomiya natok

It imparts knowledge about trends in Assamese Drama with Special emphasis on Jyotiprasad Agarwala, Prabin Phukoon and Uttam Boruah's Drama.

Paper M-602: Adhunik Asomiya katha-sahitya

It should enable learning about trends in Assamese Prose

Paper M-603: Adhunik Bharatiya sahitya adhyayan

In this paper students will learn about The Modern Indian Literature (Assamese, Bengali and Hindi)

Paper M-604: Asomiya suti galpa aru upanyas

In this paper students will learn about the trends in Assamese Short story and Assamese Novel.

Paper M-605: Sanda-alankar

In this paper students will learn about Metre and Figure of Speech including some particular ones.

Paper M-606: Bhasa bigyan porisoy

It enables students' learning of Linguistics

# **B.Sc. major program in Botany**

**Program specific outcome:** On completion of this course, students will acquire knowledge on the classification of plant kingdom including microbial diversity. They will be able to identify plants based on different characters. They will acquire knowledge on plant physiology, biochemistry, pathology and genetics. Students will also be able to learn about modern tools and techniques including bioinformatics.

# Course outcome:

Paper M-101 (Theory): Plant kingdom, Algae and Fungi

It should enable student learning about classification, morphology, anatomy, reproduction and phylogenetic relationship of lower groups of plants specially on Algae and Fungi and about plant kingdom in general.

Paper M-102 (Theory): Bryophytes and Pteridophytes

It should enable learning about classification, morphology, anatomy, reproduction and phylogenetic relationship of bryophyte and pteridophyte.

Paper M-103 (Practical): Algae, Fungi, Bryophytes, Pteridophytes

It should enable practical learning on preparation of permanent slide through staining, mounting and herbarium preparation of Eukaryotic organism specially algae and fungi

Paper M-201 (Theory): Gymnosperms, Paleobotany and Plant Anatomy

It should enable learning on comparative study on morphology, anatomy, reproduction and evolution and significance of gymnosperms and microscopical structure of plant cells and tissues.

Paper M-202: (Theory): Cell Biology

It should enable learning on various plant processes and functions, metabolism, concepts of gene and how organism's function is influenced at the cell, tissue and organ level.

Paper M-203 (Practical): Gymnosperm, Paleobotany, Plant Anatomy, Cell Biology

It should enable practical learning about paleobotany, morphology, anatomy, reproduction of gymnosperms and cell biology.

Paper M-301 (Theory): Ecology, Plant Geography, Evolution

It should enable learning about adaptation, distribution, development and behavior, networked life on earth and tracing the energy pyramids through nutrient flow of different forms of plant life and about the environmental pollution.

Paper M-302 (Theory): Instrumentation and Laboratory Techniques

It should enable learning about the modern tools and techniques used in Botany.

Paper M-303 (Practical): Ecology, Laboratory Instrumentation and Laboratory Techniques

It should enable practical learning about ecology and modern tools and techniques used in Botany.

Paper M-401 (Theory): Morphology, Palynology, Embryology of Angiosperms

It should enable learning about the external structure and various developmental process of higher plants (Angiosperms).

Paper M-402 (Theory): Plant Taxonomy

It should enable learning about objectives and principles of plant taxonomy and comparative study & economic importance of various plant families.

Paper M-403 (Practical): Morphology, Palynology, Embryology, Plant Taxonomy and Field Trips

It imparts practical knowledge on study of developmental plant biology, morphology and plant collection, herbarium preparation, identification and classification of plants.

Paper M-501 (Theory): Microbiology and Immunology

It should enable learning about the microbial world, their role in biogeochemical cycle and immunization system.

Paper M-502 (Theory): Plant Pathology and Lichen

It should enable learning about various plant diseases, their causal organisms, etiology, plantparasite interaction, disease management and symbiotic association of algae and fungi.

Paper M-503 (Theory): Cytogenetics, Plant Breeding And Biometrics

It should enable learning about basic principles of genetics, structural and numerical changes in chromosomes and plant hybridization techniques and biostatistics.

Paper M-504 (Theory): Applied Botany

It should enable learning on application of various plant groups in industries, medicines, agriculture and bioremediation, breeding of disease resistance varieties, plant propagation techniques, indoor gardening etc.

Paper M-505 (Practical): Microbiology, Plant Pathology and Lichen

It should enable practical learning on microbial world such as bacteria, viruses and symbiotic association between algae and fungi.

Paper M-506 (Practical): Cytogenetics, Plant Breeding, Biometrics and Applied Botany

It should enable practical learning on cytogenetics, plant breeding techniques, grafting, layering, bonsai etc.

Paper M-601 (Theory): Molecular Biology and Plant Biochemistry

It should enable learning in molecular structure of cell and various physiological and biochemical and metabolic processes in plant cell.

Paper M-602 (Theory): Bioinformatics, Computer Application and Biotechnology

It should enable learning on digital skill and integrate basic principles and scope of modern tools specially on bioinformatics, application of computer and biotechnology such as tissue culture, plant genetic engineering, DNA fingerprinting etc.

Paper M-603 (Theory): Plant Physiology

It should enable learning on soil-plant relationship, mineral nutrition, photosynthesis, respiration, translocation of organic solute, growth and development in plants.

Paper M-604 (Theory): Plant Resource Utilization

It should enable learning on origin of cultivated crops, utilization of plant resources such as beverages, fibres, timbers, medicinal, pharmacognosy and traditional knowledge and Intellectual property rights.

Paper M-605 (Practical): Molecular Biology, Biotechnology, Bioinformatics and Computer Application

It should enable learning about molecular biology, biotechnology, bioinformatics and application of computer and internet.

Paper M-606 (Practical): Plant Physiology and Plant Resource Utilization

It should enable practical learning on utilization of plant resources and various physiological processes of plants.

# **B.Sc. major program in Chemistry**

**Program specific outcome:** On completion of this course, students will acquire knowledge on the different branches of chemistry as physical chemistry, inorganic chemistry, organic chemistry and the quantum facets of chemistry. They will learn about the varieties of chemical reactions, properties of molecules, compounds and solutions, synthesis and analysis of organic samples, reaction dynamics, molecular rearrangements, tools such as spectroscopy, and medicinal chemistry.

#### **Course outcome:**

Paper M 101: Physical Chemistry

It should enable learning about rate of chemical reactions and feasibility of a reaction.

Paper M 102: Organic Chemistry

It should enable learning about reaction mechanism for organic reactions.

Paper M 103: Practical

It should enable practical learning about rate of chemical reactions, paper chromatogtaphy, TLC etc.

Paper M 201: Physical Chemistry

It should enable learning about electrochemistry and colligative properties of solutions.

Paper M 202: Organic Chemistry

It should enable learning about synthesis and reactions of various organic compounds.

Paper M 203: Practical

It should enable practical learning about analysis of organic samples.

Paper M 301: Inorganic Chemistry

It should enable learning about structure and bonding of atoms.

Paper M 302: Inorganic Chemistry

It should enable learning about ionic bonds and solids.

Paper M 303: Practical

It should enable learning about qualitative analysis of inorganic salts.

Paper M 401: Inorganic Chemistry

It should enable learning about properties of inorganic compounds.

Paper M 402: Inorganic Chemistry

It should enable learning about chemistry of non-transition and transition metals.

Paper M 403: Practical

It should enable learning about preparation of inorganic complexes.

Paper M 501: Quantum Chemistry

It should enable learning about mathematical knowledge and operators in chemistry.

Paper M 502: Physical Chemistry

It should enable learning about photochemistry, molecular reaction dynamics and phase equilibria.

Paper M 503: Organic Chemistry

It should enable learning about molecular rearrangement reactions in organic chemistry.

Paper M 504: Inorganic Chemistry

It should enable learning about bio-inorganic chemistry.

Paper M 505: Practical

It should enable practical learning about estimation of metals.

Paper M 506: Practical

It should enable practical learning about synthesis of organic compounds.

Paper M 601: Spectroscopy

It should enable learning about spectroscopic studies in chemical science.

Paper M 602: Physical Chemistry

It should enable learning about solid state chemistry.

Paper M 603: Organic Chemistry

It should enable learning about natural products and medicinal chemistry.

Paper M 604: Inorganic Chemistry

It should enable learning about spectra of coordination compounds.

Paper M 605: Practical

It should enable practical learning about determination of physical parameters.

Paper M 606: Practical

It should enable practical learning about carrying out innovative research projects.

# **B.A. and B.Sc. major program in Economics**

**Program specific outcome:** On completion of this course, students will acquire knowledge on the branches of economics, tools used in economic analyses, the role of government in formulating and implementing economic policies, international economics, the role of economic policies in sustainable development, history of economic thoughts, and national and regional economic policies.

#### **Course outcome:**

Paper M 104: Microeconomics I

It should enable learning about consumer behaviour and demand, production and cost, output decisions and profit maximization.

Paper M 105: Macroeconomics I

It should enable learning about drives of income, savings, investment and employment in an economy.

Paper M 204: Microeconomics II

It should enable learning about business, market structure government and welfare economics.

Paper M 205: Macroeconomics II

It should enable learning about goods and money market, business cycle and inflation.

Paper M 304: Elementary Mathematics for Economics

It should enable learning of the mathematical tools used in economic analysis.

Paper M 305: The Monetary System

It should enable learning about the behavior of the economy as a whole and performance of financial institutions and markets.

Paper M 404: Mathematical Applications in Economics

It should enable learning of the mathematical tools used in economic analysis.

Paper M 405: Introduction to Development Economics

It should enable learning about economic output, whether measured by GDP, GVA or any other measure.

Paper M 501: Elements of Public Finance

It should enable learning about the role of the government in an economy.

Paper M 502: Basic Statistics for Economics (For Arts Stream only)

It should enable learning the statistical tools necessary for economic analysis.

Paper M 502: Elementary Econometrics (For Science Stream only)

It should enable learning the econometric tools necessary for economic analysis.

Paper M 503: Introduction to Environmental Economics

It should enable learning about how economic activities and policies affect the environment we live in.

Paper M 504: International Trade: Theory and Policy

It should enable learning about assessing economic and political effects and the implication to the international trade for goods and services, finance and foreign investment.

Paper M 505: History of Economic Thought I

It should enable learning about the origin of economics and to avoid the mistakes committed by earlier economic thinkers.

Paper M 506: Development Policy and the Indian Economy

It should enable learning about the policies of the Indian govt.

Paper M 601: Public Economics

It should enable learning about taxation, government budget, fiscal policy, federal finance.

Paper M 602: Applied Statistics (*For Arts Stream only*)

It should enable learning the statistical tools essential for economic analyses.

Paper M 602: ECONOMETRIC METHODS (For Science Stream only)

It should enable learning the econometric tools essential for economic analysis.

Paper M 603: Economics of Natural Resources and Sustainable Development

It should enable learning about the economics involved in sustainable development and integrated economic and environmental accounting.

Paper M 604: International Economics

It should enable learning about assessing economic and political effects and the implication to the international trade for goods and services, finance and foreign investment.

Paper M 605: History of Economic Thought II

It should enable learning about the origin of economics and to avoid the mistakes committed by earlier economic thinkers.

Paper M 606: Planning for Development: India and the Northeast

It should enable learning about the concept and justification of planning, the place of India in the global economy and economic problems of North-East India.

# **B.A.** major program in Education

**Program specific outcome:** On completion of this course, students will acquire knowledge on the different theories of education, the social, psychological, environmental aspects of education, the technological advances in education, and the implementation of scientific methods in conducting research in the field of education.

#### **Course outcome:**

Paper M 1.01: Foundation of Educational (Theories and Principles)

It should enable learning about 'scientific' and sound principles, concept, nature and scope of education, different dimensions of education such as the learner, the teacher and the curriculum, the concept of discipline and freedom and the latest trends and current educational thoughts.

Paper M.1.02: Educational Psychology

It should enable learning about the relation between education and psychology and different methods of educational psychology, to understand learning, process, memory, attention, instinct and emotion, the concept of personality, type and trait theories, intelligence, and creative talent and mental health.

Paper M 2.01: Development of Education in India

It should enable learning about the ancient and medieval system of education in India, the development of education in India during the British Period and during post independence period and the development of education in Assam.

Paper M 2.02: Sociological Foundations of Education

It should enable students' understanding about education as a social process, to inculcate the knowledge of education from the social perspective.

Paper M 3.01: Emerging Issues and Education

It should enable to acquaint the learner with the emerging issues in education, awareness about different literacy programmes, human rights, globalization, vocationalization of secondary education, importance of national integration and concept of Peace Education.

Paper M 3.02: Measurement and Evaluation in Education

It should enable the students to acquire knowledge of the concept of measurement and evaluation in education, different types of educational tests and new trends in evaluation.

Paper M 4.01: Educational Technology

It should enable to understand the concept and scope and objectives of Educational Technology, communication, process, teaching aids, E-Learning and E-Library.

Paper M.4.02: Environmental Education and Population Education

It should enable the students in understanding the concept and scope of environmental education, programmes of environmental education, environmental stressors, disaster management education and the effect of population growth.

Paper M.5.01: Philosophy of Education

It should enable students to understand how philosophical ideas have influenced educational ideas, the three major philosophies of education — Idealism, Naturalism and Pragmatism and to familarise with the Indian schools of philosophical thought.

Paper M 5.02: Educational Thinkers - Oriental and Occidental

It should enable students to understand the philosophy of life of different educational thinkers and their contribution, the views of the Western and Indian thinkers on aim, curriculum, method of teaching, discipline and the role of a teacher.

Paper M 5.03: Teacher Education

It should enable the learner to understand the concept, aims, scope and development of teacher education, different policies, practices and quality assurance in teacher education and different organizations involved in teacher education.

Paper M 5.04: Teaching – Learning Method and Pedagogy

It should enable to acquaint the students with the teaching learning process, strategies and models of teaching, and classroom management.

Paper M 5.05: Statistics in Education

It should enable to understand the basic concept of statistics, and statistical procedures used in Education.

Paper M 5.06: Practical

It should enable to understand the concept of experimental psychology, methods of conducting psychological experiments and tests, and to develop scientific attitude amongst students.

Paper M 6.01: Developmental Psychology

It should enable to understand the basic concepts relating to development, heredity and environmental factors affecting pre-natal development, development aspects during infancy and childhood, importance of adolescence period and problems associated with this stage.

Paper M 6.02: Continuing Education and Distance Education

It should enable to understand the concept of continuing education and its relevance to the changing society, Adult Education in India, distance education and its growth in India.

Paper M 6.03: Special Education

It should enable to understand the meaning and importance of special education, to acquaint with the different government policies and legislations regarding persons with disabilities and support services of special children.

Paper M 6.04: Guidance and Counselling

It should enable to understand the concept and importance of guidance, techniques of counseling, and to understand the role of a counselor.

Paper M 6.05: Educational Management and Administration

It should enable to understand the basic concepts of management, organization and administration and to infuse knowledge on educational supervision, institutional planning and educational administrative structure of India in general and Assam in particular.

Paper M 6.06: Project Work

It should enable the students to formulate research hypotheses, carry out scientific studies and analyse data to test the hypotheses as a part of developing scientific temperament.

# **B.A. major program in English**

**Program specific outcome:** Students will get a comprehensive idea of English Literature as a whole. They will also be able to judge literary quality of any literary text and to find connections and continuities of the past and present as well as identify disjuncture in these traditions.

# **Course outcome:**

PAPER 1: The Social and Literary Context: Medieval and Renaissance

This paper acquaints students with the contexts of the English literary tradition. Students are expected to read and relate the circumstances that influenced, shaped and contributed to the process of literary production from the medieval period to the Renaissance.

PAPER 2: Medieval and Renaissance: Poetry and Plays

In this paper students will study poetry and drama that emerged against the literary and historical contexts studied in the previous paper.

PAPER 3: The Social and Literary Context: Restoration to the Romantic Age

The objective of this paper is to acquaint students with the contexts of the English literary tradition from the Restoration of Charles II and the reopening of the theatres in 1660 to the Age of Romanticism. Students are expected to understand the circumstances that influenced, shaped and contributed to the process of literary production and topics identified in this paper are necessary and useful markers.

PAPER 4: English Poetry, Drama and Fiction: Restoration to Romanticism

In this paper students will have the opportunity to study the literary texts that reflect the socio-cultural and political interests of the period studied in Paper III and also examine the ways in which texts take part in and are produced by urgent issues of a time.

PAPER 5: The Social and Literary Context: The Victorian World

This paper seeks to acquaint students with the contexts of the English literary tradition as it develops in the Victorian age. Students are expected to study the social and literary history of the Victorian world as a necessary preparation for the texts that they will encounter in Paper VI.

PAPER 6: Victorian Poetry and Fiction

Students will here encounter the poetry that is characteristic of the Victorian period – forms like the dramatic monologue, the love poem, pre-Raphaelite experiments and the beginnings of modern poetic experience in Hopkins. They will also find examples of the great Victorian fiction that closely followed the social concerns of the period and experimented with narrative voice and perspective.

PAPER 7: The Social and Literary Context: Modernism and After

This paper will acquaint students with the circumstances that shaped the processes of literary production from the twentieth century to the present.

PAPER 8: English Poetry and Fiction: Modernism and After

This paper brings to the student a selection of the poetry and fiction of the modern and postmodern eras that is representative of important trends, critical shifts and formal experimentation. In keeping with the internationalization associated with these cultural phases the selection is no longer strictly British but includes examples from other literary cultures like the American and the Latin American.

#### PAPER 9: Modern Drama I

This paper will introduce students to 20th century English and European drama. It is to be noted that by the turn of the century, the European avant-garde had completely altered the theatre – which at this juncture, seems to become a pan-European phenomenon, with stylistic/technical innovations and thematic experimentation. In the early phase of this period, realism is the dominant technique, and is then followed by radical turns away from it. Students are expected to acquaint themselves with the European historical and cultural situation in this period to read the prescribed theoretical texts in Section I and the plays in Section II.

#### PAPER 10: Modern Drama II

The epoch of modern drama marks the proliferation of avant-garde theory within the theatre making it self-conscious, and experimental. The impact of contemporary philosophy, ideas and art movements like existentialism, expressionism, impressionism, Marxism and the Absurd reverberates in modern drama. These innovations, both in form and content co-exist alongside the revival of earlier forms like the poetic drama. Students are expected to approach the texts in this paper in the light of the ideas, issues and texts in Paper 9.

# PAPER 11: The Essay in English: Addison to Dickens

This paper introduces students to the literary form of the *essay* through a selection of representative texts from the 18th and 19th centuries. Students will have to acquaint themselves with the development of the form from the time of Francis Bacon (1561-1626), and examine the emergence of the periodical essay in the 18th century in the hands of Addison and Steele particularly because of favourable conditions like the increase in literacy rates and the appearance of a large number of periodicals which provided a forum for the articulation of views on a variety of topics. The essays are to be studied in relation to the wider political, social, and cultural context while noting the variety of themes that have been treated in the genre as also the diversity of styles of writing from the personal, intimate note of Lamb which is in keeping with the subjective thrust of Romantic literature to the detached, argumentative strain of later times.

PAPER 12: The Essay in English: The Twentieth Century

This paper introduces students to developments in the genre of the essay in the 20th century. Students will note how the genre has adapted in order to address a variety of contemporary issues and become the vehicle for representing personal experiences, moved into literary, social, and cultural criticism and engaged in polemic and persuasion. The essays are to be read against their intellectual and socio-cultural background, noting the shift away from the elevated, literary, and classical style of earlier times to a general tendency towards factual and referential writing and a style more direct, immediate, and colloquial.

PAPER 13: Life Writing: Biographies, Memoirs and Letters

This paper will enable the students to appreciate the element of narrativization in seemingly linear, transparent, straight forward accounts of lives of significant people set down in memoirs, biographies and letters. The student will hopefully appreciate the 'literary' or constructed nature of life-writing purportedly telling nothing but the truth, as also note the 'textual' nature of all lives- that these lives in a way are re-made for each succeeding generation of readers through the act of transmission/ telling.

# PAPER 14: Women's Writing

This paper on writing by women introduces students to a body of literature that has emerged with growing feminist awareness of women's lives and their representation. It invites students to examine how women's texts pay attention to the historical and political conditions of their times, to the status and condition of women and to the ways in which they embody a politics of resistance.

PAPER 15: Literary Criticism

This paper acquaints students with some of the key ideas of Western literary criticism from Graeco- Roman antiquity to the modern period and expects them to examine the implications of ideas (e.g. mimesis or imagination), and orientations (classicism, romanticism and modernism) that have marked the history of literary criticism.

#### PAPER 16: Twentieth Century Criticism and Theory

This paper introduces students to key ideas and texts that will familiarize students with the intellectual shifts in the reading of culture, language and literature in the 20th century and the emergence of Theory and acquaint them with common concepts and notions that, they are likely to encounter in the reading of theory.

#### PAPER 17: Nature

Ecological literary criticism, or ecocriticism, emerged as a powerful field of study in the early 1990s, and has now become, like race, class and gender, an important dimension of literary and cultural studies. It is "the study of the relationship between literature and the physical environment", examining literary texts through "an earth-centred approach". This paper seeks to explore the process through which language and literature – as manifestations of culture – are produced by the interconnections between both nature and culture; it addresses nature not just as a passive background in literary texts but as a central presence determining the dynamic interpretations of the text itself.

#### PAPER 18: Western Mythology: Introducing Classical & Judeo-Christian Myth

This course is an introduction to the study of Classical and Judeo-Christian myth and their recurrence in later social, historical, cultural and literary contexts. It is expected to provide a gateway to the reception of mythical ideas and images in western art and literary cultures.

#### PAPERS 19 AND 20 (Optional Papers)

The two papers in this Option introduce students to the distinctive literature produced in India in the wake of English education, first under British colonial rule and then after independence. Since there has been a distinction made in the study of this literature between pre and post independence concerns, this is an element that should be kept in mind while studying the texts in this paper. At the same time, given the student's present location in modern India an attempt has to be made to place texts in this context and read them in the light of the historical, cultural and political circumstances of their production. A conception of modern India along with some preliminary knowledge of the politics of British ideas about the entity India is desirable for entry into and understanding of the area that has come to be called Indian English Literature. It is expected that knowledge of this literature against this particular intellectual backdrop and in its vigorous and idiosyncratic interpretations of modern India, will help students to articulate themselves as individuals, readers and critics, and develop reading positions that will facilitate their engagement with all the literature they will study in the Major Course. Indeed since the development of a critical position is perceived to be as important as interpreting the literature, the first paper in this Option offers basic readings that address some of the questions relevant to this area. Issues discussed in these readings are expected to give students a foundation in ideas that will help in the readings of literary texts in these papers. Questions in both papers will try and elicit from students their understanding of texts against this background, being both textual and contextual.

# B.A. and B.Sc. major program in Geography

**Program specific outcome:** This course enables students to understand the formation and interpretation of various landforms across the earth, the science of climatic phenomenon and oceanography, soil and biogeography. They get acquainted with the regional geographies of different regions of the world, as well as the social, political and economic aspects of world geography. The students also learn the role of geography in human settlements and population distribution alongwith the relation of man with his environment. The students completing this course also get armed with the knowledge of cartography and use of tools such as GIS, GPS and remote sensing with the help of satellites.

#### **Course outcome:**

Paper 101: Understanding Geography

It should enable to understand Geography through ages since Greek to contemporary period.

Paper 102: Basis of Geomorphology

In this discourse, landforms of the world are taught more elaborately.

Paper 103: Geomorphology Practical

Detailed interpretation of landforms are studied and schematic representation enhance to grow Practical understanding of Geography

Paper 201: Oceanography and Climatology

Detailed understanding of these two broad subjects of Geography has helped to know the Climate Change and adaptability, marine resources.

Paper 202: World Regional Geography

The detailed study of geography through regional context has helped students to know the subject in global context.

Paper 203: Practical on Oceanography, Climatology and World Regional Geography

Drawing of Maps and Diagrams of different countries of the world, bottom relief, climate etc are needed to discuss on global context.

Paper 301: Soil and Biogeography

The study of Abiotic and Biotic components of Biosphere is the most important topic taught globally today.

Paper 302: Economic Geography

It tries to disseminate the absolute way to understand Geography and Economy as an entity.

Paper-303: Practical on Biogeography & Economic Geography And Field Study

This paper makes us to understand global Flora and Fauna, Economy in spatial context, and Field observations.

Paper 401: Forms and Processes in Geomorphology

This paper supports to develop knowledge on natural activities on landform formation.

Paper 402: Human Geography

This paper makes us to understand Men Environment relationship.

Paper 403: Practical on Geomorphic Processes

Detailed interpretation of landforms are studied and enhance to grow Practical understanding of Geographical processes operating on landforms.

Paper 501: Concept of Regional Development Planning and Geography of Development of USA and Japan

The detailed understanding of this subject has immensely helped students to delineate regions and viewed on international cooperation.

Paper 502: Regional Geography of India And SAARC Nations

It enhances to understand Geography of Asia, South East Asia more particularly India in detail.

Paper 503: Cartographic and Quantitative Methods

This paper makes us to know art of Map making and application of Statistics and Mathematics in Geography.

Paper 504: Population and Settlement Geography

This paper helps us to understand Population Dynamics and its pattern.

Paper 505: Practical on Cartographic Methods (Surveying & Map Works)

The detailed understanding of this subject has immensely helped students to draw maps and land surveying.

Paper 506: Practical on Cartographic And Quantitative Methods

This paper makes us to know application of Statistics and Mathematics in Geography in a detailed manner

Paper 601: Environment and Development

The very outcome of this paper has enhanced to discuss on EIA (Environmental Impact Assessment) and sustainable development.

Paper 602: Social and Political Geography

This paper makes us to know social and political study in Geography in a detailed manner.

Paper 603: Regional Geography of North East India with Special Focus on Assam

The very outcome of this paper has enhanced to discuss on Geographical understanding of NE India in spatial context.

Paper 604: Principles and applications of Remote Sensing, GIS and GPS

Now-a-days access to Technology is very important for precise analysis. This paper has made it possible to understand Satellite Remote Sensing, GIS, and GPS.

Paper 605: Practical on Advanced Techniques in Geography

Geographical or Spatial analysis of Data is now being possibilized by using GIS technology,

Paper 606: Project Work

This paper has an insight to frame out Research work in a systematic manner.

# **B.A.** major program in History

**Program specific outcome:** This course enables students to learn the ancient, medieval and modern history of India and Assam. The political history of India under different regimes has been discussed elaborately. The students also learn the history of different ancient civilizations of the world. The students also get to learn the elaborate history of Europe and developed countries of Asia such as China and Japan. Students also learn the different stages of development of science and technology in India.

#### **Course outcome:**

Paper 101: Introduction to History

The paper aims to train the students about the meaning, scope and importance of History of the mankind.

Paper 102: History of India (up to A.D. 300)

The paper aims to train the students about the processes ad stages of the evolution of the aboriginal people of India in ancient times.

Paper 203: History of India (300AD-1200AD)

On completion of the course the students will be able to explain the economic and socio-cultural connections and transitions in India.

Paper 204: History of Ancient civilizations of the world

The paper attempts to aware the students about the historical, socio-political and administrative patterns of the world.

Paper 305: India under the Turko-Afghans

The course attempt to the student will be able to explain the political and administrative history of medieval period of India.

Paper 306: History of Assam from 5th Century to 1228AD

The course will help the students to have a general outline of history of Assam from the earliest time to the advent of the Ahom in the 13th Century.

Paper 407: India under the Mughals

This course will help the students to have a comprehensive idea about historical foundation of a variety of Political and administrative set up in India 16th- 17th century.

Paper 408: History of Europe from 1453 to 1789 AD

The course will train the students about transition of Europe from medieval to Modern age

Paper 509: India under the East India Company

The course will help the students to relate the circumstances leading to the consolidation of colonial rule over India

Paper 510: History of Assam from 1228-1826AD

The course attempt to help the students to identify major stages of development in the History of Assam during medieval time.

Paper 511: History of Europe from 1789 to 1870

This course will help the students to analyse the major historical development in Europe.

Paper 512: History of Science and Technology in pre-colonial India

This course attempt to acquaint the students about the different stages of development of science and Technology in India.

Paper 513: History of Great Britain 1485-1820

This paper aimed to trained the students about formation of the British Royal dynasties uniting different nations

Paper 514: History of China 1839-1949

This course deal with the foundation of European imperial power in Far Eastern country.

Paper 615: India under the crown

This paper tries to explain the new socio-economic and administrative set up of British rule in India.

Paper 616: History of Assam (1826-1947)

This course mainly emphasizes on the socio-economic and political transition of Assam under the British rule.

Paper 617: History of Europe (1871-1947)

This paper deals with major political developments of Europe leading to the two great world wars.

Paper 618: Worlds since 1945

The course covers a very important period which witnesses the rise of various independent countries of the world.

Paper 619: History of Japan

The course enables the students to know about rise of modern Japan and her socio-economic and political strength.

Paper 620: Project paper

It trains the students to undertake research in various fields.

#### **B.Sc. major program in Mathematics**

**Program specific outcome:** The learning outcomes of this course are aimed at facilitating the learners to acquire the attributes of knowledge, understanding, skills, attitudes, values and academic achievements sought, keeping in view of their preferences and aspirations for knowledge of mathematics. Mathematics is the study of quantity, structure, space and change. It has a very broad scope in science, engineering and social sciences. The key areas of study in mathematics are Calculus, Algebra, Geometry, Analysis, Differential Equations and Mechanics. Programme Specific Outcome of B.Sc. (Hons) Mathematics.

#### **Course outcome:**

Paper M104: Algebra and Trigonometry

It should enable learning about the operation of algebraic and trigonometric function & has immense applications in physics and chemistry also.

Paper M105: Calculus

It is applicable as a rate measure and various geometrical problem.

Paper M204: Co-Ordinate Geometry

Its knowledge is applicable in various types of problems of geometry in 2D and 3D.

Paper M205 Differential Equation

This paper deal with rate of change of various terms with respect to time also applicable in engineering.

Paper M304: Abstract Algebra

It imparts the knowledge about the operation of algebric function.

Paper M305: Linear Algebra and Vector

To deal with the various system of operations in algebric spaces.

Paper M404: Real Analysis

It imparts the knowledge about real number system and it hasImmense applications in engineering etc.

Paper M405: Mechanics

It imparts the knowledge which are applicable in our day to day life.

Paper M501: Real and Complex Analysis

It imparts the knowledge about real number system and complex number system also.

Paper M502: Topology

It imparts the knowledge about the study of sphere and some problems related to it.

Paper M503: Spherical Trigonometry and Astronomy

It enables students to learn about the space and celestial bodies.

Paper M504: Rigid Dynamics

It imparts the knowledge which are applicable in our day to day life.

Paper M505: Probability

It imparts the knowledge of getting chances of different outcomes of different events.

Paper M506: Optimization Theory

It imparts the knowledge in business and commercial purpose.

Paper M601: Hydrostatics

To know about pressure equation, buoyancy, gas laws etc.

Paper M602: Numerical Analysis

It imparts the knowledge to study the methods of calculations that involves approximations and also the methods for estimating the accuracy of it.

Paper M603: Computer Programming in C

It is applicable in evolving numerical methods with special emphasis on developing computational algorithms for solving problem in algebra and calculus.

Paper M604: Discrete Mathematics

It imparts the knowledge in different fields such as operation

research, electric engineering and economics.

Paper M605: Graph and Combinatorics

It imparts the knowledge in various field of day to day life such as game theory, colouring problem etc.

Paper M606: Project

# **B.Sc. major program in Physics**

**Program specific outcome:** The learning outcomes of this course are aimed at facilitating the learners to acquire the knowledge of mechanics, electrostatics, thermodynamics, wave optics, relativity, atomic physics, quantum mechanics, astrophysics, electronics, electromagnetism, and problem solving of physical sciences using mathematics and computer programming.

#### **Course outcome:**

Paper 101: (Theory) Mathematical Methods-I:

It enables students' learning of the development of mathematical methods for application to problems of physics.

Paper: 102 (Theory) Mechanics:

It enables students' learning in the area of science concerned with the behavior of physical bodies

Paper: 103 Practical:

It enables students' gaining of practical knowledge in different experiments

Paper: 104 Practical:

It enables students' gaining of practical knowledge in different experiments

Paper: 201 (Theory) (A) Mathematical Methods-II:

It enables students' learning of the development of mathematical methods for application to problems of physics

(B) Properties of Matter:

It enables students' understanding of the physical properties of matter

Paper: 202 (Theory) Heat and Thermodynamcs:

It enables students' learning of the nature of heat energy transferred between substances

Paper: 203 (Practical)

It enables students' gaining of practical knowledge in different experiments

Paper: 301 (Theory) (A) Mathematical Methods-III:

It enables students' learning of the development of mathematical methods for application to problems of physics

(B) ELECTROSTATICS:

It enables students' understanding of the nature of electric charges at rest.

Paper: 302 (Theory) (A) Current Electricty:

It enables students' learning of the nature of electric circuit, net flow of electric charges through a region

(B) Magnetostatics:

It enables students' learning of magnetic fields in a system where the currents are steady

Paper: 303 (Practical)

It enables students' gaining of practical knowledge in different experiments

Paper: 401 (Theory) (A) Mathematical Methods-IV:

It enables students' learning of the development of mathematical methods for application to problems of physics

(B) Introduction to Computer and Computer Programming:

It enables students' learning of computer programming

Paper: 402 (Theory) (A) Wave Optics:

It enables students' to understand the phenomena for which the ray approximation of geometrical optics is not valid

(B) Special Theory Of Relativity:

It enables students' to understand relativity of space, time, speed of light etc.

Paper: 403 (Practical)

It enables students' gaining of practical knowledge in different experiments

Paper: 501 (Theory) (A) Mathematical Methods-V:

It enables students' learning of the development of mathematical methods for application to problems of physics

(B) Classical Mechanics:

It enables students' learning of motion of bodies in accordance with the general principle of Newton

Paper: 502 (Theory) Atomic Physics:

It enables students' learning of the nature of atomic properties

Paper: 503 (Theory) (A) Quantum Mechanics:

It enables students' learning of the nature of smallest particles and its behavior

(B) Astrophysics:

It enables students' understanding of the idea of space physics

Paper: 504 (Theory) Electronics:

It enables students' learning to understand and study the controlled flow of electrons in components, circuits etc

Paper: 505 (Practical)

It enables students' gaining of practical knowledge in different experiments

Paper: 506 (Practical)

It enables students' gaining of practical knowledge in different experiments

Paper 601: (Theory) Nuclear Physics:

It enables students' learning of the idea of nuclei and their interactions.

Paper: 602 (Theory) (A) Mathematical Methods:

It enables students' learning of the development of mathematical methods for application to problems of physics.

(B) Solid State Physics:

It enables students' understanding about the properties of bulk matter.

Paper: 603 (Theory) (A) Modern Optics:

It enables students' to understand the non linearity of optics, laser, holography, etc.

(B) Electromagnetic Theory:

It enables students' learning of the basic principles of electromagnetism.

Paper: 604 (Theory) (A) Statistical Mechanics:

It enables students' learning of statistical methods, probability theory in microscopic physical laws

(B) Computer Applications:

It enables students' in solving problems of physics using computer programming.

Paper: 605 (Practical)

It enables students' gaining of practical knowledge in different experiments

Paper 606: (Project and Computer Programming)

A project work on different physical problems to develop problem solving.

# B.A. major program in Political Science

**Program specific outcome:** On completion of this course, students will acquire knowledge on the various types of political systems in different countries around the world, and the functioning of the democratic system of government in India. Students will be enabled to learn the provisions in the constitutions of different nations, as well as the aspects of International relations. Students will also learn different aspects of issues such as human rights, and also the views of political thinkers around the globe.

#### **Course outcome:**

Paper 1.1: Political Theory- I

This paper enables students' learning of political theory, approaches, contemporary perspectives, ideology, its debates and on state.

Paper 1.2: Politics in India-I

It enables students' learning of evolution, basic features of Indian Constitution, and working of judiciary in India.

Paper 2.1: Political Theory-II

It enables students' learning of poltical theory, its application in understanding various issues like democracy, justice, development, multiculturalism and the Third world.

Paper 2.2: Politics in India-II

It enables students' learning about the electoral system, Indian democracy at work and independent agencies of the Indian Constitutional system.

Paper 3.1: International Relations -I

It enables students' learning of international relations, origin, approaches, basic concepts and the Two World Wars.

Paper 3.2: Public Administration -I

It enables students' learning of public administration, growth, evolution, theories and its recent trends.

Paper 4.1: International Relations –II

It enables students' learning of the basic concepts in international relations, United Nations, security, disarmament and global economy.

Paper 4.2: Public Administration-II

It enables students' learning on different aspects of public administration including personnel, financial, development and its relationship with citizen.

Paper 5.1: Western Political Thinkers

It enables students' learning of different political thinkers right from ancient, medieval till Marxian thought.

Paper 5.2: Select Constitutions –I

The paper enables students' learning on the concept of constitution, constitutionalism, constitution of United Kingdom and United States.

Paper 5.3: General Sociology

It enables students to understand sociology, growth, methods, key concepts and social stratification.

Paper 5.4: Contemporary Political Issues

It enables students' learning about the contemporary political issues relating to environment, terrorism, gender etc.

Paper 5.5: Political Sociology

It enables students' learning on political sociology, its historical development and its basic concepts.

Paper 5.6: Human Rights

It enables students' learning on an emerging area of study on human rights, approaches and its perspectives.

Paper 6.1: Indian Political Thinkers

It enables students' learning of the ideas of the famous political thinkers including Manu, Kautilya, Nehru, Gandhi, etc.

Paper 6.2: Select Constitutions-II

It enables students' learning about the constitution of other countries basically China and Switzerland.

Paper 6.3: General Sociology -II

It enables students' learning on various aspects of society like social change, culture, etc.

Paper 6.4: Contemporary Political Ideologies

It enables students' learning on various issues of contemporary political ideology.

Paper 6.5: Political Sociology -II

It enables students' learning about the concept and theories of political sociology.

Paper 6.6: Human Rights In India

It enables students' learning on an emerging area of study on human rights in the context of India.

# **B.Sc. major program in Zoology**

**Program specific outcome:** On completion of this course, students will acquire knowledge on the classification of animal kingdom including microbial diversity. They will be able to identify and classify animals based on their attributes. They will acquire knowledge on animal physiology, biochemistry, pathology, developmental biology and genetics. Students will also be able to learn about modern tools and techniques including bioinformatics and biostatistics.

#### **Course outcome:**

Paper M 101: Biosystematics and Taxonomy

It enables learning of the existing diversity of the biological world and reveals the significance of classification.

Paper M 102: Animal Diversity-I (Non-Chordates)

It enables learning about the different non chordate animals, both present and extinct.

Paper M 103: Practical

It enables practical learning about animal diversity

Paper M 201: Animal Diversity-II (Chordates)

It enables learning about the different chordate animals, both present and extinct.

Paper M 202: Ecology, wildlife conservation and Management

It enables learning to understand the ecosystem, its components and the need for its protection.

Paper M 203: Practical

It enables practical learning of the ecosystem richness, measurement of BOD, CO<sub>2</sub>, etc.

Paper M 301: Comparative Anatomy & Histology

It enables learning about the functioning of tissue and cellular systems.

Paper M 302: Cell Biology

It enables learning about the cell, its molecules, DNA, Genetic engineering.

Paper M 303: Practical

Provides hands on training in Histological study for detection of anomalies, study of cell and cell division

Paper M 401: Developmental Biology

It enables learning of different stages of embryonic development.

Paper M 402: Genetics

It enables learning about laws of genetics, inheritance and heritable changes.

Paper M 403: Practical

Provides practical knowledge on Test cross backcross genotyping.

Paper M 501: Animal Physiology

It enables learning about the function and metabolism of animal body and disorders.

Paper M 502: Biochemistry & Bioenergetics

It enables learning about biomolecules and their range of activities.

Paper M 503: Endocrinology & Immunology

It enables to understand how the hormones regulate body functioning and maintenance of the living system.

Paper M 504: Biological Techniques and Biostatistics

It enables learning the use of different instruments and application of statistics to analyse biological data.

Paper M 505: Practical

It enables gaining practical knowledge of metabolism of animal body.

Paper M 506: Practical

It enables practical learning about biomolecules such as carbohydrates, proteins, fats and their activities.

Paper M 601: Animal Behaviour

It enables learning behavior patterns, circadian rhythm, biological clock, etc.

Paper M 602: Evolution and Adaptation

It enables learning about phylogenetic relations and various animal adaptations.

Paper M 603: Economic Zoology

It enables learning the application of biological resources to boost economy.

Paper M 604: Biotechnology, Bioinformatics and Computer Application

It enables learning new avenues of biological techniques and application of computer softwares in biology.

Paper M 605: Practical

It provides practical knowledge on biological techniques.

Paper M 606: Project

This part encourages development of scientific temper and innovation in carrying out small projects

# B. Voc. program in: (i) Tourism and Hospitality Management (ii) Beauty Therapy and Aesthetics

**Program specific outcome:** The B.Voc Degree is recognised by UGC and is affiliated to Gauhati University. A special feature of the course is that there are multiple exit points, which facilitates a student to leave the course at the end of the first year with a Diploma. Similarly, if someone leaves after two years s/he will get an Advance Diploma and those who complete three years will get the B.Voc Degree.