

**Department of Assamese
Bijni College, Bijni,
P.O- Bijni, Dist- Chirang, BTR, Assam**

Under-Graduate Programme under Bodoland University

Course Objectives:

- To motivate the students towards the learning of Assamese language and literature.
- To motivate the students to study the linguistic aspect of Assamese language.
- To make the students aware about the history and culture of Assam and undivided North-East India.
- To acquaint the students with the shifting trends in varied literature of the East and the West in Assamese language.
- To motivate the students towards the cultural history and acquaint them with the indigenous dress, food and ornaments.
- To encourage the students towards the folk literature and folk tradition of the state.
- To encourage the students towards research and critical thinking on varied aspects of the state through its wide-range of literature.
- To enhance, preserve and promote the Assamese language and literature.

Programme Specific Outcome:

After successful completion of the Undergraduate programme with Assamese, students will be able to achieve the following outcomes:

- Students will understand and have a better knowledge about the Assamese language, literature and their classical and as well as shifting traditional aspects.
- The students will be able to acquire an idea about the historical development of Assamese language, its present position and need to further development in greater perspective of other Indian languages.
- The texts and ideas included in various Papers will be able to give first-hand knowledge to the students of Assamese language and literature about the issues and ideas prevailing in the contemporary Assamese society. This will surely broaden their regional as well as national outlook.
- As the course incorporates Assamese literature from the 9th to the 21st century along with the Western and Eastern Literature, Cultural History it will be able to open up various academic as well as employment opportunities in tourism, archaeology, agriculture and fashion.
- It will also contribute in making a student an expert of indigenous dress and ornaments.
- It will also provide requisite information on various religious and historical places of interest and archaeology. Variety and scope of agriculture is another area that it covers.
- The course will provide skill in creative writing. Competence in the language will empower them with communicative skills.
- After passing out with Major in Assamese students can opt for higher studies in literature, Linguistics, Culture Studies, Mass Communication and Tourism with wide-scope of employment in both government and private sector as well as self-employment like Reporters, Columnist, Proof-reader, News-reader etc.,

Honours Course in Assamese (CBCS)

SEMESTER-I

Course Code	Course name	Course outcome
C-1	History of Assamese Literature (Early Period)	This Paper provides the students about the history of Assamese Literature

C-2	History of Assamese Language	Through this Paper students will be able to learn about the History of Assamese language from the earliest period, its origin and existence.
GE-1	Introduction to Assamese Folk Literature	This paper introduces the students to folk literature of Assam.

SEMESTER-II

Course Code	Course name	Course outcome
C-3	Study of Assamese Culture	This paper will make the students know about the folk traditions and culture of Assam.
C-4	Practical Grammar of Assamese	This paper will acquaint the students with the various aspects of Assamese grammar and lexicon.
GE-2	Practical Grammar of Assamese	This paper tends to introduce the students with the practical grammar and its varied applications in language.

SEMESTER-III

Course Code	Course name	Course outcome
C-5	Introduction of Assamese Folk Literature	This paper will give first hand idea about the folk literature of Assam.
C-6	Study of Assamese Drama	It will acquaint the students with the varied Assamese drama traditions along with Ankiya naat, Bhauna etc.,
C-7	Prose Literature and Introduction to Literature of Criticism	This paper introduces the students to Assamese prose literature. It also introduces the Assamese criticism and its comparative study with other contemporary critical school of literary thinkers.
SEC-1	Folklore of Assam and Tourism	The paper tends to introduce the varied folklore and folk life of Assam and relate its influence in the tourism sector.
GE-3	Prose and Biographies of Assam	This paper tends to make the students aware about the various prose form of literature in Assamese and also introduce the different biographical writings of Assamese literary stalwarts.

SEMESTER-IV

Course Code	Course name	Course outcome
C-8	Theory of Literary Criticism (Eastern and the Western)	It introduces the concept and theory of literary criticism in context of both Eastern and Western critical thinking.
C-9	Varieties of Language	It helps the students learn about the varieties of language.
C-10	Study of Assamese Language	It helps the students to know about the Assamese language from its inception.
SEC-2	Use of Computer Language	It tends to introduce and make the students adapted to use of computer in Assamese language.
GE-4	A Study of Assamese Culture	This particular paper is devoted to the study of varied Assamese culture in wider perspective.

SEMESTER-V

Course	Course name	Course outcome
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Code		
C-11	Study of Simple Linguistics	This paper introduces the study of linguistics, its significance in the understanding and study of a language.
C-12	Introduction to Various Approaches of Literature	It introduces the students with various approaches in literature.
DSE-1	Introduction to Assamese Romantic and Modern Poetry	It tends to introduce the students to the Romantic ideals in Assamese poetry followed by growth of modernism.
DSE-2	Introduction to Assamese Grammar	This paper incorporates the various aspects of Assamese Grammar and acquaints the students with its perfect knowledge for their future correct and precise usage.

SEMESTER-VI

Course Code	Course name	Course outcome
C-13	Introduction to Assamese Biography and Autobiography	The paper categorically introduces to the biography writing and makes the students delve into Assamese biography and autobiographies.
C-14	Introduction to Indian Literature(Bangla and Hindi)	This paper emanates the knowledge of Indian Literature with particular indent upon Bangla and Hindi Literature.
DSE-3	Assamese Short Stories and Novels	It tends to introduce the students with the Assamese short stories and novels. It makes the students to learn the fiction and short fictional writings in Assamese.
DSE-4	Study of a Special Author(Madhav Kandali or Laksminath Bezbaruah)	This paper specifically emphasizes on the study of whole life and literature of one of the founders of Assamese literature Madhav Kandali or the harbinger of Assamese folk and fictional writing Laksminath Bezbaruah.

B.A Regular Course For Assamese (CBCS)

SEMESTER-I

Course Code	Course Name	Course Outcome
DSC-1 (A)	Introduction to Assamese Folk Literature	This paper will give first hand idea about the folk literature of Assam.
AECC-1	Functional Assamese (Communicative)	To give the adequate knowledge about Assamese grammar. After studying the course students will learn how to speak and write Assamese language to a great extent.

SEMESTER-II

Course Code	Course Name	Course Outcome
MIL-1	Introduction to Assamese Poetry and Drama	Selection of Assamese Poetry & Drama. Students will introduce with the history of Assamese Poetry & Drama.
DSE-1 (B)	Functional Grammar of Assamese	This paper incorporates the various aspects of Assamese Grammar and acquaints the students with its perfect knowledge for their future correct and precise usage.

SEMESTER-III

Course	Course Name	Course Outcome
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Code		
DSC-1 (C)	Study on Assamese Prose and Biography	This paper tends to make the students aware about the various prose form of literature in Assamese and also introduce the different biographical writings of Assamese literary stalwarts.
SEC-1	Folklore and Tourism of Assam	The paper tends to introduce the varied folklore and folk life of Assam and relate its influence in the tourism sector.

SEMESTER-IV

Course Code	Course Name	Course Outcome
MIL-2	Introduction to Assamese Prose, Short Story and Novel	It tends to introduce the students with the Assamese prose, short stories and novels. It makes the students to learn the fiction and short fictional writings in Assamese.
DSE-1(D)	Study on Culture of Assam	This particular paper is devoted to the study of varied Assamese culture in wider perspective.
SEC-2	Uses of Language in Computer	It tends to introduce and make the students adapted to use of computer in Assamese language.

SEMESTER- V

Course Code	Course Name	Course Outcome
DSE-1(A)	Study on General Linguistics	This paper introduces the study of linguistics, its significance in the understanding and study of a language.
GE-1	Introduction to Assamese Folk Literature	This paper will give first hand idea about the folk literature of Assam.
SEC-3	Study on folk Medicine of Assam	This paper will give first hand idea about the folk Medicine of Assam.

SEMESTER-VI

Course Code	Course Name	Course Outcome
DSE-1 (B)	Assamese Short Story and Novel	It tends to introduce the students with the Assamese short story and novels. It makes the students to learn the fiction and short fictional writings in Assamese literature.
GE-2	Functional Grammar of Assamese	This paper incorporates the various aspects of Assamese Grammar and acquaints the students with its perfect knowledge for their future correct and precise usage.
SEC-4	Language of Printing and Publishing	This paper will give first hand idea about the Printing and Publishing of Assamese Language.

Post Graduate Programme Under Bodoland University

Syllabus Outcome: PG –ASSAMESE

The M.A. syllabus in Assamese is designed to introduce the students to the varied disciplinary off shoots in the present times. The focus of the syllabus is not only the centrality of Assamese Literature in its ideological, aesthetical and socio-cultural aspects but also on its linguistic richness and evolution in influencing and evolving other regional literature and culture. Moreover, the focus on research and its methodology provided here makes the students abreast with the latest developments in this field and also make them prepare for their self-enquiry in future. Thus, going through such a syllabus a student can feel confident about appreciating the intricacies of literature as well as developing their mother tongue.

Course Code	Title of the Course	Course Outcomes
ASM101	History of Modern Assamese Literature	To understand the historical context to Assamese written literature To make the students familiar with the modern Assamese literature The learners will internalize the nature and development of the Pre-Independent and Post-Independence Assamese literature in particular
ASM102	Evolution of Assamese Language	To acquaint the learners with the origin and development of Assamese language To make them acquainted with the various forms of Assamese language through the Proto, Early, and middle ages. Students will also understand the changes in Assamese languages paved by the colonial influences.
ASM103	Culture of Assam and Northeast India	To know the culture of different Communities of Assam and North East India To know the various form of performing art of different tribes and communities of Assam and North East India To Know the various social customs of different communities of Assam and their varieties with the aim of achieving an endeavor of cultural sustainability. To know recent cultural theories
ASM104	History of Literary Criticism (East and West)	To acquaint the students with different aspects of Eastern/Sanskrit Aesthetics To explore the eastern influences on Assamese literature. To understand the different school of criticism in Western literary studies. To grow critical faculties in the mind of the learners to develop critical insight regarding texts.
ASM105	General Linguistic	To make the students known about the nature of Linguistics, the history of linguistics studies starting with the earliest linguistics theories and difference between grammar, philosophy and linguistics. Student would understand various aspects of Linguistics and properties of language. To impart knowledge about the principles of phonological, morphological, syntactic, semantic structure of language.
ASM106	Functional Assamese	To give adequate knowledge about Assamese grammar. After studying the course students will learn how to speak and write Assamese language to a great extent.
ASM107	Creative Writing: Theory and Practice	To grow the creative faculties and craftsmanship of writing in the mind of the learners. Practicing writing for newspaper, edited magazines, authored book etc. will also enhance the professional skills of the learners. Employability aspects of the course is also one important outcome.
ASM201	History of Sanskrit Literature	To give inclusive knowledge about the definition, nature and characteristics different genres of Sanskrit literature. To introduce the historical and thematic aspects of the concerned literature to enhance the understanding of the learners.
ASM202	Study on Assamese Poetry	Students are expected to learn the background of old romantic modern and contemporary trends of Assamese Poetry. Students are expected to read some selected Poems of some notable and famous poet of Assam and their contribution towards Assamese literature.

ASM203	Dramatic Trends and Movements(East and West)and Assamese Drama	To make the students known about the origin and development of drama both in terms of Eastern and Western context. To make the learners aware about the Eastern/Western influences in the development of Assamese drama.
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BA in Bengali

Course		Name of the paper	Course Outcome
Honours Course	1 st Semester	Paper 1.1	History of Bengali Literature (Old & Medieval Period)
		Paper 1.2	Text (Manasamangal, Vaishnava Padavali, Chaitanya Bhagavat)
	2 nd Semester	Paper 2.1	History of Bengali Literature (Modern Period) 1
		Paper 2.2	History of Bengali Literature (Modern period) 2
	3 rd Semester	Paper-3.1	19 th Century selected text (Neeldarpan, Meghnathbadh Kavya ,Anandamath)

			able to know how modern thought was reflected in literature .
4 th Semester	Paper-3.2	Bhasar itibrito O Bhashatatta	Demonstrate understanding of different language and their changes and the distinctive properties of human languages
	Paper-3.3	Chanda, Alankar & Prachaya Kavyotottwa	The rhyme rhetoric of the poems in this course is discussed in detail. Students of literature must have knowledge about the rhyme ornaments of poetry. This course acknowledges that need .
	Paper-4.1	Rabindra literature - 1(Sanchayita,muk tadhara,Ghore-Baire)	, Rabindranath's fame in Poetry and novels is enough . And with this thpsychological side of Rabindranath has been discussed.details.discussed.
	Paper-4.2	Rabindrasahitya (Short Story,Jibonsmriti, Sishusahityya)	Along with poetry, Rabindranath's fame in short stories,,Biographical and Child pshychology is enough . And with this the psychological side of Rabindranath has been discussed in detail so that it becomes clear from the description of this course.
	Paper-4.3	Word Literature	With the help of this paper the students will know about the importance of neighbour language and culture.
5 th Semester	Paper 5.1	Literary Criticism (Kavyajigyasha-Atul Chandra Gupta, Poetics,Contemporary Literary Trends	With the help of this paper the students will ideas from different point of views and the sense of the work from judgment. Criticism is also necessary in this paper to gain knowledge about different branches of literature. Literary Criticism essays are incomplete if they do not have proper knowledge the style of criticism .Students will be able to acquire basic knowledge about criticism to meet this goal.
	Paper 5.2	Bengali Literature N,E. In India	This paper includes the studies of the importance of neighbour language and culture. With the help of this paper the students to knowing who is in Bengali literature, a basic idea about contemporary Indian literature especially Assamese. This course will actually create a comparative study and interest among the students.
	Paper 5.3 DSE-1	Children Literature	.Children literature increasing their imagination and creativity .
	Paper 5.4 DSE-2	Folk Culture	In this course, some selected topics as from the reach folklore of Bengal have been kept for the students to

			study. In fact, in order to know Bengali and its culture, lessons of folk culture and folk literature are very important. This course will also help in field based research.
6 th Semester	Paper 6.1	Rabindranath paraborti Bangla Sahitya (Adhunik Bangla Kabita ,Nirbachita Bangla Golpo ,Drama-Natun Ihudi,)	This paper will help the students to gain knowledge about the poems stories and Drama.It will help to knowledge about the different type of literature and thinking of society in this time. Especially the drama, story & poetry of 19 th & 20 th century are discussed here. Students will be able to see the reflection of contemporary social life of these two centuries through this curriculam.
	Paper 6.2	Bangla Probondho	This paper is a literarywhich includes the essays of some of the famous Bengali writer. it will help to increase the knowledge about the essay which will help to increase their four basic skills.Identifies and locates supporting ideas in essays.
	Paper 6.3	Autobiography &Biography	This paper is related to share the life of another person with an audience .and includes memories ,influences ,achievements. Through this paper students will learn about famous personalities.
	Paper 6.4	Assignment (20 th Century, Story/Novel/Poem)	This paper is completely practical, skill-based and related to project works.

Semester -1 GE	1 st Semester	GE-1	History of Bengali Literature (Old & Medieval Period)	It is important for the students to get acquainted with the Development of Bengali literature. In the course developing that sequence, this text sequence has been created to fulfill the goal of gaining knowledge about the literary genres of the early and middle ages. Students will have a clear idea about the pre-consciousness society. Students will also able to know about the socio-economic conditions of Medieval Bengal through that two texts.
AECC	1 st Sem.	AECC-1	Pad Paribartan, Bakya Paribortan, Idioms,	

			Commercial Terminology, Letter Writing.	Students will be able to develop the habit of writing accurately as they read . In fact ,the practice of grammar teaches them to write accurately and correctly. Also they will be to apply it properly in the workplace if they can acquire language knowledge correctly .
Semester -2 GE	2nd Semester	GE-2	History of Bengali Literature (Modern Period)	This paper helps the students to know the beginning of the modern era of Bengal in the nineteenth Century. The first introduction of Prose in Bengali literature is in the nineteenth Century. Students will be able to know how modern thought was reflected in poetry.
DSC	2 nd Semester	DSC-1B	History of Bengali Literature (Modern Period)	
MIL				This paper helps the students to know the beginning of the modern era of Bengal in the nineteenth Century. The first introduction of Prose in Bengali literature is in the nineteenth Century. Students will be able to know how modern thought was reflected in literature..
SEC	2 nd Semester	MIL-1		
GE-3& DSC-1	3 rd Sem.	BEN-SEC-1	Alaler Dulal Sahitya Gharer ,Sishu	
	3 rd Semester	GE-3 & DSC-1 C	Pandulipi Prastuti Selected Reading (Anandamath, Adhunik Bangla Kobita	This paper helps the students to know the beginning of the modern era of Bengal in the nineteenth Century. Developing skills, knowledge,strengthening and relationships among young children. The curriculum is designed to enhance the employment potential by expending the range of literature and technology. Students will also develop an idea about printing and publishing house in edition

				This paper helps the students to know the beginning of the modern era of Bengal in the nineteenth Century. Students will be able to know how modern thought was reflected in Novel and Poetry.
4 th Semster	SEC-2		Tranlation	Provides students to translate sentences directly for practicing translation and learning other society and culture.
4 th Semester	GE-4 DSC-1D	&	Tagores Literature	Along with poetry, Rabindranath's fame in Poetry,Drama and short stories,And with this the psychological side of Rabindranath has been discussed in detail so that it becomes clear from the description of this course.
4 th Semester	MIL-2		Padmanadir Majhi, Nirbachita Bangla Golpo	It help us to understand regional reforms, inscription, culture. And affecting a particular region. Also Story will concisely reveal an empathetic truth about the human condition.
5 th Semester	BEN-SEC-3		Applied Bengali Proof reading ,News Writing,Report Writing, Book &Drama Review	In this course there is a oppotunity to develop skilled manpower in various publishing houses by learning about the process of correcting mistakes in writing. This course may provide employment opportunities in the future.
	DSE-1		Children Literature	.Children literature increasing their imagination and creativity .
	GE-1		History of Bengali Literature (old & Medieval Period)	It is important for the students to get acquainted with the Development of Bengali literature. In the course developing that sequence, this text sequence has been created to

				fulfill the goal of gaining knowledge about the literary genres of the early and middle ages. Students will have a clear idea about the pre-consciousness society
	6 th Sem.	SEC-4 DSE-3 GE-2	Traslation Autobiography & Biography History of Bengali Literature(Moder n period –Selected Readings)	Provides students to translate sentences directly for practicing translation and learning other society and culture. This paper is related to share the life of another person with an audience .and includes memories ,influences ,achievements. Through this paper students will learn about famous personalities. This paper helps the students to know the beginning of the modern era of Bengal in the nineteenth Century. The first introduction of Prose in Bengali literature is in the nineteenth Century. Students will be able to know how modern thought was reflected in literature

Department of Bodo

Course		Name of the paper	Course Outcome
Core Course	1 st Semester	Paper C-1	History of Bodo literature
		Paper C-2	Early and Modern Bodo Poetry
			Missonary's contribution to the Bodo Literature,Literatur of Bihar and Hathorkhi-Hala age;Bodo Literature from1951-1990,Bodo Literature from 1991- Till Date
			Angmi Dabung Apha,Swr nwnng,Ja Habap,Okhanaisi,Dwibajrum,Hajw,Udang Bwtwr,Binay,Sadhu Sikhao,Gwdwni Gwjam Methai,Gwsw,Limarik Makhase ,Ai Bima, Jiuni Ikebana,Gibi Mukhlong,Guphur Dauthua Dabw Gabw ,Swdwbni Swler,Dabi San:Jutani,Iliji Sangrema Jiu

		GE-1	Study of Bodo Poetry	Trends of Bodo Poetry, Textual Criticisms of Early Bodo Poetry from Bihar to Olongbar age, Analysis of Text Modern Bodo Poetry (Poetry Pieces to be Analysis: Dubri Hagra, Thwisam, Swdwbni Swler, Phasini Doulengao Okhaphwr, Jatayu), Stylistics of Bodo Poetry.
		AECC	Functional Bodo	In this paper students will study about the Phonology, Morphology, Syntax and Practice of Translation and Composition
2 nd Semester		Paper C-3	LITERARY CRITICISM	This paper helps the students to know about the literature and its criticism, like poetry, drama, novel, short-story, prose literature Concept of Classicism and Romanticism and Modernism
		Paper C-4	Eastern literary criticism	In this paper students will study about the eastern literature and its elements like Rasa, Chanda, Alankara
		GE-2	Study of Bodo Drama	In this paper students will study about the Historical and Legendary Drama and Social Drama in Modern Period of Literature Since 1940 to Till Date. and impact from other Language. Anari and Swmdwn
		MIL-1	Bodo Poetry Prose and Composition	Poetry Text Khwdwm Bipang, Badari, Mithingga, Gibi Mungklong, Short story Text: Sirinay Mandar, Haraoni Saikel, koling bel, Prose: Boropwrni Mwigong Thaingong, Boroni Asar khandi arw harimu, Bihar mugani boro phoraisa afad, bodo grammar like number, classifier, gender and Case-Marker
		DSC-1(B)	Study of Bodo Drama	Historical, Legendary Drama, Trends of Social Drama, Textual Analysis: Anari, Swmdwn, Impact and Translation from other language of Bodo Drama
	3 rd Semester		Paper C-5	Theoretical Concept of Culture
		Paper C-6	Introduction to Bodo Folklore	Material culture of the Bodo, Folk-festivals of the Bodo, Folk literature of the Bodo, Social Folk custom of the Bodo
		Paper C-7	Bodo Novel	Inception Bodo Novel and contemporary trends, Mwihur, Khashpurni hangma, Jujaini or.
		Paper SEC-1	Composition editing and proofreading	Definition of composition and editing, proofreading
		Paper GE-3	Study of prose Literature	Prose Literature published in Bihar Magazine, Hathorkhi Hala. Prose literature on culture, bagurumba mwsanai: mwnse bijirnai, boro harimu, subung hariao kana pwtainai, Prose Literature on ethnogy: mongolinani gwgw thwi boro phisa habhraghat boro sanmilani.

		DSC-1C	Study of Prose Literature	In this paper student will study about the Prose Literature published in Bihar and Hathorkhi-Hala Magazine, Prose Literature on culture: Bagurumba Mwsanai: Mwnse Bijrthi, Boro Harimu, Subung Harimuao Khana Phwthainai, Prose on Ethnology: Mongolianni Gw gw Thwi Boro Phisa, Habraghat Boro Sanmilani.
		SEC-1	Art of Composition editing and proofreading	In this paper student will study about the definition of composition, editing and proofreading , writing process, proofreading process and process of art of writing , difference between editing and proofreading , wring and editing .
	4 th Semester	Paper C-8	Bodo Drama	In this paper student will study about the selective bodo drama - Dwrswn Jwhwla o, Horbadi Khwmsi, Jaikhlngao Bemaje and Mingmangni Simang.
		Paper C-9	Bodo Short Story	In this paper student will study about the selective short story - Abari, Phagli, Gwmnai Dairi, Buthua Thungri, Honglani Saori, Gangse Phali, Dumphaoni Phitha, Mistar Haibridni Gwlwmdwi Arw Mwdwi, Gabda Daina, Hadan and Haraoni Saikhel.
		Paper C-10	Bodo Prose Literature	Through this paper student will study about the selective Bodo Prose Literature like- Aglani Bathra, Bwisagu, Bwirathi, Gwmwhwnay Noni Bathra, Kinchit Nibedan, Boro Mwsanay, Udangri Swmaosarnayao Boropwr, Endel Mugani Boro Thunlai, Platoni Nwjwrao Thunlai, Swithw Arw Phwthainay, Subung Swdwmsiyao Bigiyanni Gwhwm and Dinwini Mulug Arw Narsebjanay Sinaythi.
		Paper – SEC-2	Costume Designig and Bodo Costume	In this paper student will study about the Theoretical Perspective of the Bodo Costume, Practical and Exercise of Bodo Costume.
		Paper- GE-4	Literary Criticism(Western)	In this paper student will study about the short story, Drama, Novel and Poetry.
		Paper- MIL-2	Bodo Drama, Novel and Composition	Raja Iragdao, Hainamuli, Literary Criticism: Drama and Novel, Essay writing.
		DSC-1	Literary Criticism (Western)	In this paper student will study about the short story, Drama, Novel and Poetry.
		5 th Semester	Paper –C-11	Introduction to Language and Linguistics
		Paper C-12	Introductin to Bodo Group of Language(Dimasa,	In this paper students will study about the History of Tibeto- Burman Language, Linguistics features ,Grammar like- Noun,

			Garo and Rabha etc.)	Pronoun, Adjective, Numbers, Genders, Case-marker, Tense, Vocabulary and Word Typology.
		Paper DSE-1	Bodo Language and Linguistics	In this paper students will study about the Scientific articulation of Bodo Phonemes like-syllable, diphthong, Phonemic cluster etc. Morphology: gender variation, use of case marker etc. and Syntax structure of Bodo Language,
		Paper-DSE-2	Cultural Ecology of the Bodos	In this paper the students will study about the culture, Ecology, Bio- diversity, relationship between culture and Bio- diversity of the Bodos.
		Paper DSE-1(A)	Early History of Bodo Literature	In this paper students will study about the Missionary contribution, Poetry and Prose published in Bihar and Hathorkhi- Hala, Poetry in Hathorkhi- Hala and literature in Olongbar
		Paper :GE-1	Study of Bodo Poetry	Trends of Bodo Poetry, Textual Criticisms of Early Bodo Poetry from Bihar to Olongbar age, Analysis of Text Modern Bodo Poetry (Poetry Pieces to be Analysis: Dubri Hagra , Thwisam, Swdwbni Swler, Phasini Doulengao Okhaphwr, Jatayu , Stylistics of Bodo Poetry.
		SEC-3	Eco- Tourism and Management	In this paper students will study about the Meaning and aims of eco-Tourism, and Practical and field report submission.
	6 th Semester	C-13	Sociolinguistics and Dialectology	Meaning of Socio linguistics' relation between language and culter, language and para-language, sociology of language.
		C-14	Study of special Author	In this paper students will study about the Nilkhamal Brahma as a short story wirter ans Isan Chandra Muchahary Poem : Sonani mala ana Phami
		DSE-3	Folklore and Traditional Music of the Bodos	In this paper students will study about the Folklore, folklore and folk –life, Traditional Music ,folk songs and lyrical.
		DSE-4	Project/Dissertation work	In this paper students will study about the Topics related to his/ her core subject.
		DSE-1(B)	Comparative culture	Defination of cultere, comparison of folk – customs among the Tribal north –east india, comparison of cotomes bodo rabha, Comparison of Dance of the Bodo, Rabha and Mising
		GE-2	Study of Bodo Drama	In this paper students will study about the Historical and Legendary Drama, Trends of social Drama, Textual analysis of Drama: Anari, Swmdwn,

P.G. BODO DEPARTMENT

Course		Name of the paper	Course Outcome
Core Course	1 st Semester	Paper :1 .1	History of Bodo literature In this paper student will study about the Pre-Bibar age, Bodo Literature,Literatur of Bibar and Hathorkhi-Hala age;Bodo Literature from1951-1990,Bodo Literature from 1991-Till Date Modern period 152-1975 and 1975 onwads.
		Paper:1.2	Early Bodo Poetry In this paper student will study about the Trends of Bodo poetry, and some selective poems: Bathunam Bwikaguni Gidhu,Guru khulumnai gidhu,Bathou bwraiya makou khurjidwg,Kontai metai : Apa laori,eswrnao binai,pwidwndg bipa dinwisw , iswrni nama gwdwi,Habab, Lekha rwngba gunda jaya,Swrkou nwgswr malai nwgdwng,Boroni gudi sibsa arw aroj: Bathoua swr, gosaiya naijanai naijayabw,Khantai bijab:Swrkhar jalai,Halua sipai,Sonani Mala: Badari,Mwnabili,Berekha,Hajw,Gwsw mwbleb.Sonakhe Bijab:Hayenne Suphin,Daha,Oron,
		Paper: 1.3	Cultural History of the Bodos Concept of culture,Fair and Festival of the bodos,Material cultur of the Bodos and Folk custome of the bodos
		Paper: 1.4	Introduction to Language and Linguagetics Language its characteristics Varieties of Language,Concept of Language, Syntax
		Paper: 1.5	Sociology of Bodo literature Sociology of Bodo Poetry,Drama,Short story and Novel
		Paper:1.6	Bodo custome and Designing Traditional Bodo Dress and Weaving Designing
	2 nd Semester	Paper :2.1	Modern Poetry This paper helps the students to know about the Trands of Modern poetry,gibi bithai,: batou mungni gudhi, kherainai,radab,okrang gongse nagou,dwithun,dubri bilai,Mablaba arw gubun gubun:mwnjarwngwi, phwisali,mithinga ,thwinai. Angni anjalia mawsa pakri:elegy,hadan, Mwndangthini rwjabthai:sansrjwng damdise,mwkhang ,dukhu,bhwwithi. Gwrwbwni radab: Jabthuse swgnai unjwllwini,gwdan hadwr swrjini
		Paper :2.2	Drama In this paper students will study about the Trands of Bodo Drama, and some selective Dram:Raja nilambar,Gwdan pwisali,Anari,Sandw baodia,Jaolia dewan
		Paper:2.3	Non-Ficctonal Prose In this paper students will study about Trends of non-fictional Prose,prose writing in bibar and Hathorkhi hala and prose wrting in bodo (from 1952-1912) Biography: Madaram Brahma and Kalicharan Brahma

		Paper:2.4	Influence of other languages on Bodo Literature	Reception and Influence on Bodo Poetry,Drama,Short story and Novel
		Paper:2.5	Western Literature (optinal-1)	In this paper student will study about the selective Western Literature
			Optional-2 Introduction to phonetics and phonology	In this paper student will study about the phonology,organs of speech ,description of speech
		pPaper:2.6	Open elective	In this paper student will study about the Bodo alphabets,application of case markers
3 rd Semester	Paper :3.1	Literary Criticism	In this paper student will study about the Eastern Literary Criticism like Rasa, chanda,alangkar. Poetry,novel drama,short story est.	
		Paper 3.2	Short story	Trends of short story, Srimuti durlai,gubrusarnai,narkhw,lain bus,sirinai mandar:thaibeng khaji,hongla pandhit,birkhag mohori,oblabw, boxing,khebba.katiram mastarni dairy,hadan ,japani swima,hajwni sikhiri hayenni bibar,sonani medel,dabla goriani songsar
	Paper:3.3	Coposition and editing	. In this paper student will study about the composition,editing,copy writing ,advertisement,effective writing,proof reading	
	Paper :3.4	Novel	Trends of bodo novel and some selective novel: Khetir,Daini,Birgrsrini thungri, Rugung swohaywi saikhong.	
	Paper :3.5	Comparative Literature and Translation studys(optional-1)	In this paper student will study about the Concept of Comparative Literature and Translation Studies in Bodo and its History and Deference Literature like Hindi,Bngla, Assamese	
		Structure of Bodo Language (Optional-2)	In this paper student will study about the Structure of Bodo Language Like Phoneme. tone, juncture, syllable, syntactic analysis, semantic analysis etc	
4 th Semester	Paper 4.1	Cultural history of Assam(optional-1)	Students will come to know about the concept of culture .Through this paper they come to know about the folk festival ,material culture, vaishnavite culture of Assam	
		Computational linguistics and computer literature(Optional-2)	In this paper student will study about the Concept importance of Computational linguistics, scope of Computational linguistics, computer literacy and computer language	
	Paper 4.2	Comparative studies of the Bodo and Assamese folk literature(optional-1)	In this paper student will study about the concept of folklore and its genres and Compared of Bodo and Assamese folk literature	
		Comparative studies of the Bodo and	In this paper student will study and Compared of Bodo and Assamese	

			Assamese language(optional-2)	phonology, morphology, syntax and vocabulary and its types
4 th Semester	Paper 4.3		Comparative studies of the Bodo and Assamese written literature (optional-1)	In this paper student will study and compared between the selective bodo and Assamese written literature
			Study of Tibeto-Burman Language and Linguistics (optional-2)	In this paper student will study classification of Tibeto-Burman Languages, common features in phonology among Bodo group of Languages, comparative study of morphological and word typology: comparative vocabulary of the bodo-garo group of languages.
	Paper 4.4		Study of Special Authors (optional-1)	In this paper student will study about the selective authors: (a) Khamal Kumar Brahma Or (b) Manaranjan Lahary
			Study of Dialectology and Socio-Linguistics (optional-2)	In this paper student will study about the Concept of Dialectology, Varieties of Language, Language change and Bodo Dialect.
	Paper :4.5		Dissertation Writing	In this paper student will prepare the Dissertation in about 50 pages on Topic chose as advised by the supervisor concerned.

B.Sc. in Botany

		Course	Name of the Paper	Course outcome
Core Course	1 st Semester	Paper 1.1	Phycology and Microbiology	In this paper, students will study about the primary producers i.e. algae. They will also study about the microorganisms that are invisible to our naked eye, but are of great importance.
		Paper 1.2	Biomolecules and cell Biology	This paper helps the students to know about the biological molecules like carbohydrates, lipids etc that are produced by cells and living organisms. Students will also learn about the structures of cells, DNA, RNA, Nucleus and different cell organelles.
	2 nd Semester	Paper 2.1	Mycology and Phytopathology	In this paper, students will study about the plant group fungus, their structures, their association with other organisms etc. They will also study about various diseases in plants caused by pathogens and environmental conditions.
		Paper 2.2	Archegoniate	This paper will help the students to know about higher taxonomic plants that are also called embryophytes and the female sexual organ structure called archegonia which is present in all those plants.
	3 rd Semester	Paper 3.1	Morphology and Anatomy of Angiosperms	In this paper, the students will study about the diverse, highest and most evolved flowering plants called Angiosperms and their families.

	Paper 3.2	Economic Botany	In this paper, the students will study about the relationship between plants and people. The use of plants as commercial crops, in medicines, food and various other products.
	Paper 3.3	Genetics	This paper will help the students to study about heredity, genes and genetic variation of different organisms. Pedigree analysis and chromosomal diseases are also studied in this paper.
4 th Semester	Paper 4.1	Molecular Biology	In this paper, students will study about the molecular basis of biological activity in between the cells, including molecular synthesis, modification, mechanisms and interactions.
	Paper 4.2	Plant Ecology and Phytogeography	This paper will help the students to study about the environment in which the plants live in, the climatic factors, the vegetation, edaphic factors and also the plant species distribution on the earth.
	Paper 4.3	Plant Systematics	This paper will help the students to study about the kinds of organisms, identifying and grouping those organisms into different categories and also studying the relationship among those organisms.
5 th Semester	Paper 5.1	Reproductive Biology of Angiosperms	This paper will help the students to study about pollination, self pollination and cross pollination and the fertilization that takes place in flowering plants. Also the types of seeds and fruits are studied in this paper.
	Paper 5.2	Plant Physiology	This paper will help the students to study the plant function and behavior, encompassing all the dynamic processes of growth, metabolism, reproduction, defence and communication which helps the plants to be alive.
6 th Semester	Paper 6.1	Plant Metabolism	This paper will help the students to study about the physical and chemical events of photosynthesis, respiration and the synthesis and degradation of organic compounds. Production of plant secondary metabolites is also studied here.
	Paper 6.2	Plant Biotechnology	This paper will help the students to study about the use of plants in technology for different purposes like genetic engineering, production of genetically modified crops, tissue culture techniques and also different techniques of plant DNA isolation and manipulation is studied here.
2022-2023			
	GE-1	Biodiversity	
	GE-2	Plant Ecology and Taxonomy	

		GE-3	Plant Anatomy and Embryology	
		SEC 1	Biofertilizer	
		SEC 2	Mushroom Culture Technology	
		SEC 3	Medicinal Botany	
		DSE 1	Natural Resource management	
		DSE 2	Horticultural practices and post harvest technology	
		DSE 1 (general course)	Economic Botany and Biotechnology	

B.Sc. in Chemistry

Program Outcome:

1. To provide laboratory experience to the students by performing experiments based on topics taught in theory.
2. To understand the basic facts and concepts in chemistry.
3. To understand the importance of chemistry in daily life.
4. To develop a better understanding and reasoning of facts.
5. To impart knowledge of general chemistry covering all the aspects viz, inorganic, organic, physical and analytical chemistry of the level expected from an undergraduate in chemistry.
6. To develop as independent thinkers and be able to work with others demonstrating leadership and collaborative skills

Course		Name of the paper	Course Outcome	
Core Course	1 st semester (B.U.) CBCS	Paper-CC-1	Inorganic Chemistry-I	On successful completion of this paper students would have clear understanding of the concepts related to atomic and molecular structure, chemical bonding, periodic properties and redox behavior 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.
		Paper-CC-2	Physical Chemistry-I	In this paper in gaseous state unit the students will learn the kinetic theory of gases, ideal 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 solid state 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 this unit the students will also 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. Students will also have hands on experience of measurements of surface tension, viscosity, indexing of a given powder diffraction pattern of a cubic crystalline system, pH metry.
2 nd semester (B.U.) CBCS	Paper- CC-3	Organic Chemistry-I		In this paper students will be able to identify different classes of organic compounds, their reactivities and mechanisms along with stereo chemical aspects. Students will also have hands on experience of purification of organic compounds by crystallization and determination of their melting points, effect of impurities on the melting point, determination of boiling point of liquid compounds and use of chromatography to separate different mixtures.
	Paper- CC-4	Physical Chemistry-II		In this paper the students are expected to learn laws of thermodynamics, thermo chemistry, 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. Students will also have hands on experience of determination of heat capacity of a calorimeter for different volumes, determination of heat capacity of the calorimeter and enthalpy of neutralization of hydrochloric acid with sodium hydroxide, calculation of the enthalpy of ionization of ethic acid, determination of heat capacity of the calorimeter and integral enthalpy solution of salts, determination of basicity/proticity of a polyprotic acid by the thermo chemical method, determination of enthalpy of hydration of copper sulphate, study of the solubility of benzoic acid in water and determination of ΔH .
3 rd semester (B.U.) CBCS	Paper- CC-5	Inorganic Chemistry-II		On successful completion of this course students will 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 their quantitative estimation skills and introduce the students to preparative methods in inorganic chemistry.

	Paper-CC-6	Organic Chemistry-II	In this paper students will be able to describe and classify organic compounds in terms of their functional groups and reactivity. Students will also have hands on experience of functional group test for various organic functional groups and preparative methods in organic chemistry.
	Paper-CC-7	Physical chemistry-III	In this paper 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. From the experiments of this paper students will be able to determine critical solution temperature and composition of the phenol-water system, distribution of acetic acid/benzoic acid between water and cyclohexane, construct the phase diagram, study the equilibrium and kinetics of different reactions. They will also learn about different adsorption isotherms.
4 th semester (B.U.) CBCS	Paper-CC-8	Inorganic Chemistry-III	On successful completion of this course students will be able to explain bonding in the coordination 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. In the bio-inorganic chemistry unit students will be able to know the useful and harmful aspects of metals in biological systems. 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-CC-9	Organic Chemistry-III	In this paper students will be able 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. Through the experiments students will be able to detect elements and N-based functional groups present in organic compounds. They will also learn the qualitative analysis of

				unknown organic compounds.
		Paper-CC-10	Physical chemistry-IV	In this course the students will learn theories of conductance and electrochemistry. The students will also gain basic theoretical idea of electrical and magnetic properties of atoms and molecules. Through the experiments students will be able to learn different conductometric and potentiometric titrations.
5 th semester (B.U.) CBCS		Paper-CC-11	Organic Chemistry-IV	After completion of this course 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-CC-12	Physical Chemistry-V	After completion of this course the students are expected to understand the application of the quantum mechanics in some chemical systems such as hydrogen atom or, hydrogen like ions. They will also able to understand the basics of various kinds of spectroscopic techniques and photochemistry.
6 th semester (B.U.) CBCS		Paper-CC-13	Inorganic Chemistry-IV	After completion of this course students will be 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 catalyst 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 products, common ion effects, 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 experiment related to coordination compound synthesis, calculation of 10 Dq, controlling factors etc. will make the students appreciate the concepts of theory in experiments.
		Paper-CC-14	Organic Chemistry-V	After completion of this course 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.

AECC	NIL
SEC for B.Sc.3 rd semester (B.U.) (Paper-SEC-1) Basic Analytical Chemistry	Course Outcome: Upon completion of this course, students will be able to explain the basic principles of chemical analysis, design/implement micro scale and semi micro experiments, record, interpret and analyze

	data following scientific methodology.
SEC for B.Sc. 4 th semester (B.U.) (Paper-SEC-2) Fuel Chemistry	Course Outcome: 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 fuel and lubricants.
SEC for B.Sc. 5 th semester (B.U.)(Paper-SEC-3) Chemical technology and society	Course Outcome: In this paper students will 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.
SEC for B.Sc. 6 th semester (B.U.)(Paper-SEC-4) Chemistry of cosmetics and perfumes	Course Outcome: At the end of this course students will be able to learn basic of cosmetics , various cosmetic formulation, ingredients and their roles in cosmetic products; use of safe, economic and body-friendly cosmetics and prepare new innovative formulations.
DSE-1 (B.U.) (Analytical methods in chemistry)	Course Outcome: On successful completion of this paper 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.
DSE-2 (B.U.)(Instrumental Methods of Chemical Analysis)	Course Outcome: Upon completion of this course, students will learn the theoretical basis of different analytical techniques, identify the experimental requirements and compare/analyze the data/results thereof.
DSE-3 (B.U.) (Applications of computers in chemistry)	Course Outcome: On successful completion of this paper students will learn to interpret laboratory data, curve fitting of experimental work, also perform quantum mechanical calculations for various molecular models.
DSE-4 (B.U.) (Dissertation)	Course Outcome: To provide students an opportunity to work on a specific problem and submit a dissertation.
GE-1 (B.U.) ((Atomic structure, Bonding, General Organic Chemistry & Aliphatic Hydrocarbons)	Course Outcome: 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, the students are expected to learn basic ideas used in organic chemistry, stereochemistry, functional groups, alkanes, alkenes, alkynes etc. After completion of the laboratory part the students will be able to do volumetric analysis, detection of extra elements present in organic compounds and separation of mixtures by paper chromatography.
GE-2 (B.U.) (Chemical Energetic, Equilibria & Functional Organic Chemistry-I)	Course Outcome: After completion of this course the students will be able to understand the chemical system from thermodynamic point 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. After completion of the laboratory part the students will be able to do different experiments related to thermochemistry, ionic equilibria. They will also be able to prepare different organic compounds and purification of organic compounds by crystallization and distillation.
GE-3 (B.U.) (Solutions, Phase equilibrium, Conductance, Electrochemistry & Functional group organic chemistry)	Course Outcome: After completion of this course the students will learn about 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. After completion of the laboratory part, the students will be able to do many physical chemistry experiments related to phase equilibria, conductance and potentiometry.
GE-4 (B.U.) (Transition metal and coordination chemistry, states of matter and chemical kinetics)	Course Outcome: After completion of this course the students will learn the properties of transition metals (3d series) and lanthanides and actinides. 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 and real gases, surface tension, viscosity, basic solid state chemistry and chemical kinetics. After completion of the laboratory part, the students will be able to do many experiments related to semi-micro qualitative analysis of mixtures, complexometric titrations, surface tension, viscosity and chemical kinetics.
CC	NIL

Program Specific Outcome

B. Sc. In Chemistry

After completion of UG course in chemistry, students gained the theoretical and practical knowledge of handling chemicals. They have the opportunities for placement in Govt. sector as well as private sector in different fields like oil refineries, food safety, pharmacist and chemical industries such as fertilizer industries, petro-chemical industries, paint industries, rubber industries, and food processing industries, cement industries etc. Got exposure of a breadth of experimental techniques using modern instrumentation. Understand the importance of the elements in the periodic table including their physical and chemical properties and role in the daily life. Understand the concept of chemistry to interrelate and interact to the other subjects like life science, physics, mathematics etc. Learn the laboratory skills and safely to transfer and interpret knowledge entirely in the working environment.

Bachelor of Arts in Economics (Honours and Regular)

Bachelor of Arts in Economics (Honours and Regular)

Programme Specific Outcome:

- On completion of graduation in Economics a student gets the opportunity to take admission in MA, MBA. Moreover, the students can get admitted in different courses like B.Ed., LLB, MSW, Library Science, Mass Communication etc.

- The students after completing graduation in Economics, gets competitive skills for cracking examinations of Banking, All India Economics Service, Statistical Service, Insurance, UPSC, APSC. Additionally, the economics graduates get comparative advantage for most of the state and central government jobs in every category. Students completing graduation in the subject also gets preference in marketing jobs.
- As the Subject is common in Arts, Science and Commerce and only Arts Stream is the major contributor in total number of graduates, employment opportunities for teaching jobs are comparatively higher for the students.
- The programme grooms the students for avenues of self-employment as the basic economic understanding after completion of the course helps students to undertake economic activity in small scale industry, tourism industry, hospitality sector etc.

Course		Name of the paper	Course Outcome
Honours Course	1 st Semester	Paper C-1	Introductory Microeconomics This paper provides the basic concepts of micro economics to the students.
		Paper C-2	Introductory Macroeconomics The students are exposed to the basic ideas of national income accounting, theory of employment, consumption and investment function.
		Paper-GE-1	Principle of Microeconomics-I The paper provides basic concepts of economics to the students and prepare them for more complex concepts of the subject.
	2 nd Semester	Paper: C-3	Intermediate Microeconomics-I The paper provides deeper knowledge about various concepts and theories of microeconomics.
		Paper: C-4	Mathematical Methods for Economics-I The paper helps students to know basic mathematical tools which are be applied in economics.
		GE-2	Principle of Macroeconomics-I The paper equip the students with the basic concepts of Economics and prepare them for more complex concepts of the subject.
	3 rd Semester	Paper:C-5	Intermediate Macroeconomics-I The paper provides deeper knowledge about various concepts and theories of macroeconomics.
		Paper:C-6	Mathematical Methods for Economics-II The paper helps students to know basic mathematical tools which will be applied in economics.
		Paper:C-7	Statistical Methods for Economics This paper helps student to learn basic statistical tools for application in economics
		Paper:SEC-1	Data Analysis The paper provides the students the knowledge of various types of data, way of collecting these data and how to study and handle them.
		Paper:GE-3	Development Economics The paper provides knowledge about important areas and theories of economic development.

4 th Semester	Paper:C-8	Intermediate Microeconomics-II	The paper provides deeper knowledge about various concepts and theories of microeconomics and its application in various spheres of the economy.
	Paper:C-9	Intermediate Macroeconomics-II	The paper provides deeper knowledge about various concepts and theories of macroeconomics and its application in various spheres of the economy.
	Paper:C-10	Introductory Econometrics	The paper helps students to know more advance statistical tools and basic econometrics tools which are applied in economics.
	Paper:SEC-2	Field study and its importance	The paper helps the students to know the importance of field study as well as how to carry out field the studies.
	Paper-GE-4	International Economics	The paper provides knowledge about theories of international trade and its relevant concepts.
5 th Semester	Paper:C-11	Indian Economy-I	The paper acquaints with basic issues of Indian Economy such as agriculture, industry, poverty etc.
	Paper:C-12	Development Economics-I	The paper provides insight into the various theories as well as issues of development, methods of calculating development and role of different factors in the development of the economy.
	Paper:DSE-1	Public Finance	This paper helps student to have a deep insight into some key issues of public finance like taxation, budge, fiscal policy etc.
	Paper:DSE-2	Money and Financial Markets/ Applied Econometrics	The paper gives deeper knowledge about theories of international trade and relevant concepts. / The paper allows the students to understand the application of the econometrics methods and the various issues that may arise in the process.
6 th Semester	Paper:C-13	Indian Economy-II	This paper helps student to have a deep insight into the importance and key issues of various sectors of the Indian economy.
	Paper:C-14	Development Economics-II	The paper helps students to know more advance methods of calculating development as well as the role of various factors in the development of the economy.
	Paper:DSE-3	International Economics	The paper gives knowledge about theories of international trade and relevant concepts. It helps to gather knowledge about international issues like economic integration, balance of payment, foreign exchange market and international institutions.
	Paper:DSE-4	Environmental Economics	The paper makes the students aware of the impact of development on environment and the importance of development without harming the environment.

Regular Course	1 st Semester	Paper:DSC-1(A)	Principle of Microeconomics-I	This paper provides the basic concepts of micro economics to the students.
	2 nd Semester	Paper:DSC-1(B)	Principle of Macroeconomics-I	The students are exposed to the basic ideas of macroeconomics such as national income accounting, theory of employment, inflation, etc.
	3 rd Semester	Paper:DSC-1(C)	Development Economics	The paper gives knowledge about important areas and theories of economic development
		Paper:SEC-1	Data Analysis	The paper provides the students the knowledge of various types of data, way of collecting these data and how to study and handle them.
	4 th Semester	Paper:DSC-1(D)	International Economics	The paper gives knowledge about theories of international trade and relevant concepts. It helps to gather knowledge about international issues like economic integration, balance of payment, foreign exchange market and international institutions.
		Paper-SEC-2	Extension Education	The paper makes the students aware of the various types of education as well as the ways as the methods of data analysis.
	5 th Semester	Paper:SEC-3	Economics of Sericulture	This paper helps students to know the basic concepts of sericulture and the issues facing sericulture.
		Paper:DSE-1 A	Indian Economy	The paper gives knowledge about important areas and issues of Indian economy.
		Paper: GE-1	Principle of Microeconomics-I	This paper provides the basic concepts of micro economics to the students
	6 th Semester	Paper:SEC-4	Tourism Economics	The paper introduces the students to the basics of tourism. It also makes the students aware of the tourist places and prospects of tourism in the local region.
		Paper:DSE-1 B	Public Finance	This paper helps student to have a deep insight into some key issues of public finance like taxation, budge, fiscal policy etc.
		Paper:GE-2	Principle of Macroeconomics-I	The students are exposed to the basic ideas of macroeconomics such as national income accounting, theory of employment, inflation, etc.

Bachelor of Arts in Education

- Education is one of the basic disciplines in the category of social sciences. After completion of BA degree in education the learner can apply for higher education such as, MA, LLB, B.Ed., Mass Communication, Library science, Journalism, sociologist, psychologist etc.

- As education is the basic discipline of social sciences, the learner, graduate with this subject can apply for the post of teachers also.
- The present course is designed in such a way that it can explore the possibility of getting the job for a graduate student in various government and private organizations.

Course Outcomes

Course		Name of the paper	Course Outcome		
Major Course	1 st Semester	PaperC-1	Introduction to Education	Acquaint the students with the meaning, scope and aim of Education, and modern trends of Education and knowledge about freedom and discipline.	
		PaperC-2	Philosophical and Sociological foundation of Education	Students will understand the meaning, aims, objectives and functions of education. Make the students understand the roles of philosophy and sociology of Education. Students will understand the attempts of some great educators for the evolution of sound philosophy of education and better understanding of the process of education.	
	2 nd Semester	PaperC-3	Development of Education in India	Acquaint students with the salient features of education in ancient, medieval and British India.	
		PaperC- 4	Issues and Trends in Contemporary Indian education.	Make the students understand significant trends in contemporary Indian education and various organizations and their role in the implementation of policies and programmes.	
	3 rd Semester	Paper C-5	Teacher Education	Learners will acquaint with the concept, aims, scope and development of teacher education in India. They will understand about the different policies and practices and quality assurance in teacher education along with the need and importance of in-service training programme moreover, learner will acquaint with skilled based and competency based teacher education along with professional ethics and accountability of teacher. They will also acquaint with different organizations involved in teacher education.	
			PaperC-6	Educational measurement and Educational Statistics	Students will acquire knowledge about the concept of measurement and evaluation in education, different types of educational tests and their uses, characteristic of a good measuring instrument and the procedure of constructing educational and psychological tests. Besides they will acquaint with the concept and application of statistics in education
			PaperC-7	Guidance and Counseling	Students will understand the concepts, nature, scope, need and importance of guidance and understand the meaning, purpose and functions of different types of guidance. Students will understand the

				meaning, nature, objectives, need and importance, types, steps and techniques to counseling. Moreover they will understand the relationship between guidance and counseling.
4 th Semester	PaperC-8	Educational Technology	Students will understand the concept, scope and objectives of educational technology. They will also understand about teaching technology, behavioural technology and instructional technology. Moreover they will understand about communication process, teaching aids, system approach and use of computer and internet in educational technology, team teaching, E-learning and E-library.	
	Paper C-9	Educational Psychology	Students will understand the relation between education and psychology, different methods of educational psychology, learning process, memory, attention and emotion. Students will acquaint with the personality, type and trait theories, intelligence, nature and different theories of intelligence. Moreover. Students will able to understand the nature of creative talent and processes and of creative individual and the implications for identifying and nurturing such talents and the concept of mental health and hygiene for promotion of mental health..	
	Paper C-10	Educational thoughts and practices	.students will understand the philosophy of life of different educational thinkers and their contribution to present day educational thought. Moreover, students will learn about the views of western and Indian thinkers on aim, curriculum, method of teaching, discipline and role of teacher.	
Semester 5 th	Paper C-11	Educational Management and Administration	Students will understand the basic concepts of management, organization and administration. Students will acquire knowledge on educational supervisions, institutional planning and educational administrative structure of India in general and Assam in particular.	
	Paper C-12	Psychological Practical	Students will get practical knowledge about various psychological tests.	
	Paper DSE-1	Child Psychology	Students will enable to understand the importance of Child Psychology, the need of guidance for child development and about the child's needs and their rights.	

		Paper-DSE-2	Continuing Education and Distance Education	Students will understand the concept of continuing education and its relevance to the changing society and methods and techniques of continuing education. Students will also understand the development of adult education in India, kinds of adult education programme in India and the major problems of conforming adult education. Moreover, they will understand the meaning, characteristics, merits and demerits of distance education and its growth in India.
	6 th Semester	Paper C-13	Environmental and population education	Students will understand the meaning of environment, its component and the effects of its degradation, the importance of environmental education and sustainable development. Students will also know about population growth and its adverse effects. Furthermore, students will enable to realize the importance of population education in different level at school.
		Paper C-14	Project Work	Students will know how to carry out project work.
		Paper DSE-3	Special Education	Learners will understand the meaning and importance of special education, the different types of special children with their behavioural characteristics. Helps to know about the different issues, educational provisions support services of special children.
		Paper DSE-4	Abnormal Psychology	The students will understand the meaning and concept of abnormal psychology, process of adjustment and mental health. They will also get knowledge about incidence and hospitalization. . .
General Course	1 st Semester	Paper GE-1	Introduction to Education	Acquaint the students with the meaning, scope and aim of Education, and modern trends of Education and knowledge about freedom and discipline.
		Paper DSC-1(A)	Introduction to Education	Acquaint the students with the meaning, scope and aim of Education, and modern trends of Education and knowledge about freedom and discipline.
	2 nd Semester	Paper GE-2	Philosophical and Sociological foundation of Education	Students will understand the meaning, aims, objectives and functions of education. Make the students understand the roles of philosophy and sociology of Education. Students will understand the attempts of some great educators for the evolution of sound philosophy of education and better understanding of the process of education.

		Paper DSC-1(B)	Philosophical and Sociological foundation of Education	Students will understand the meaning, aims, objectives and functions of education. Make the students understand the roles of philosophy and sociology of Education. Students will understand the attempts of some great educators for the evolution of sound philosophy of education and better understanding of the process of education.
3 rd Semester		Paper GE-3	Educational Psychology	Students will understand the various stages of human development, factors affecting development and role of heredity and environment. They will also understand the relation between education and psychology, different methods of educational psychology, learning process, memory, attention and emotion. Students will acquaint with the personality, type and trait theories. Moreover. Students will able to understand the concept of mental health and hygiene for promotion of mental health,.
		Paper DSC-1©	Educational Psychology	Students will understand the various stages of human development, factors affecting development and role of heredity and environment. They will also understand the relation between education and psychology, different methods of educational psychology, learning process, memory, attention and emotion. Students will acquaint with the personality, type and trait theories. Moreover. Students will able to understand the concept of mental health and hygiene for promotion of mental health,.
		Paper SEC-1	Value Education	Students will understand the concept, need and importance, types and approaches of value education. They will also learn about various methods of imparting value education at different stages of education.
		Paper GE-4	Environment and population education	Students will understand the meaning of environment, its component and the effects of its degradation, the importance of environmental education and sustainable development. Students will also know about population growth and its adverse effects. Furthermore, students will enable to realize the importance of population education in different level at school.
4 th Semester		Paper DSC-1(D)	Environment and Population Education	. Students will understand the meaning of environment, its component and the effects of its degradation, the importance of environmental education and sustainable development. Students will also know about population growth and its adverse effects. Furthermore, students will enable to realize the importance of population education in different level at school.

	Semester 5 th	Paper SEC-2	Methods and techniques of teaching	Students will acquaint with the teaching and learning process, factors of learning and marks of good teaching, principles of teaching, various devices and style of teaching and teaching effectiveness and classroom management. They will also acquaint with the lesson plan preparation.
		Paper GE-1	Introduction to Education	Acquaint the students with the meaning, scope and aim of Education, and modern trends of Education and knowledge about freedom and discipline.
		Paper DSE-1(A)	Guidance and Counseling	Students will understand the concepts, nature, scope, need and importance of guidance and understand the meaning, purpose and functions of different types of guidance. Students will understand the meaning, nature, objectives, need and importance, types, steps and techniques to counseling. Moreover they will understand the relationship between guidance and counseling.
		Paper SEC-3	Life Skill Education	Students will understand the meaning, needs and importance of life skill education.
	6 th Semester	Paper-GE-2	Philosophical and Sociological Foundation of Education	Students will understand the meaning, aims, objectives and functions of education. Make the students understand the roles of philosophy and sociology of Education. Students will understand the attempts of some great educators for the evolution of sound philosophy of education and better understanding of the process of education.
		Paper DSE-1(B)	Educational Management and Administration	Students will understand the basic concepts of management, organization and administration. Students will acquire knowledge on educational supervisions, institutional planning and educational administrative structure of India in general and Assam in particular.
		Paper SEC-4	Education and Human Rights	Students will enable to understand about human Rights and women empowerment. . .

Bachelor of Arts in English

Syllabus Outcome:

The purpose of the is primarily to empower the students and help them in their pursuit of achieving excellence in academic, social, and global outlook. It is a holistic syllabus that strives to be student centric and also to bridge the increasing gap between an under-graduate degree and employability as well as between the degree and the personality development. All the papers except the core ones offer great flexibility. Particularly the elective papers provide the opportunity to develop competencies of students in their areas of strengths, expertise and specialization. Even the core papers also provide basic flexibility as well as the examination of systematic academic growth and development of knowledge and wisdom.

Course Outcomes: (Honours)

The course of UG Honours has the purpose of training the under graduate students of literary works of art, culture and issues related to the contemporary societies. Besides, it also guides them to appreciate and critique the humanities to inculcate aesthetic values, reasoning, analysis evaluation and critical thinking. Thus, it has the purpose of preparing the students both as critics and creative personalities by leading through a great verity of literature, their genres and their socio-politico-cultural impressions etc. It also aims to develop students' research aptitude and skills by including a paper on Research Methodology.

Course		Name of the paper	Course Outcome	
Major Course	1 st Semester	C-1	Indian Classical Literature	An acquaintance with the contexts of Indian Classical literary
		c-2	European Classical literature	Familiarity with the epic tradition of European Literature.
	2 nd Semester	C-3 Indian writing in English	The Social and Literary Contexts in Indian literature	An acquaintance with the contexts of the English literary tradition in India
		C-4 British poetry and drama: 14 th to 17 th century	English Poetry, Drama and Fiction:	An opportunity to study the literary texts that reflects the socio-cultural and political interests of the period studied in paper 3.
	3 rd Semester	C-5 American literature	The Social and Literary Contexts in America	An acquaintance with the contexts of the English literary tradition as it develops in America.
		C-6 Popular literature	Popular Literature	Familiarity with the texts of South Asia as well as contemporary texts
		C-7 British poetry and Drama : 17 th and 18 th century	British poetry and Drama : 17 th and 18 th century	Learning the texts from the Restoration period
	4 th Semester	C-8	British Literature in 18 th cen.	An acquaintance with the circumstances that shaped the process of literary production in the 18 th century
		C-9	British Romantic literature	Familiarity with a selection of the poetry and fiction of the Romantic Era
		C- 10	British literature : 19 th century	Familiarity with the 19 th century texts from the British texts
	5 th Semester	C -11	Women's writing	Introduction to Women's writing
		C -12	British literature : early 20 th century	Study of the impact of contemporary philosophy, ideas and art movements in 20 th century

		DSE 1	Literary theory	Introduction to the literary theories
		DSE- 2	World literature	Introduction to developments in the genre of the essay in the 20 th century world literature
	6 th Semester	C-13	Modern European Drama	An acquaintance with some of the texts of the modern European Drama
		C- 14	Post-colonial literature	Introduction to post-colonial texts from around the world.
		DSE-3	World literature	Learning the process through which language and literature – as manifestation produced by the interconnections between both nature and culture.
		DSE-4	Modern Indian writing in English translation	Introduction to the study of various Indian translated texts in English.

Course Outcome: (Regular)

The course of UG Regular in English is especially designed to empower and enrich the under graduate students as skilled interpreters of life experiences as well as apprentice of good writing of diverse models and purposes. It introduces the students to the theory, fundamentals and tools of communication and to develop within them vital communication skills that is necessary to be integral to personal, social and professional interactions. It also helps them in formulating and expressing sharing thoughts, motions and ideas through various means of communication both verbal and non-verbal. It has the purpose of enabling them to face up the rapid globalization and digitalization in a pluralistic society.

Course		Name of the paper	Course Outcome	
Regular Course	1 st Semester	English-1C	Compulsory English	An acquaintance with British and Indian works of Literature and to enhance literary and critical thought.
		AECC	English Communication(AECC-1)	An attempt to develop the communication skill of English among the students.
		DSC-1(A)	Individual and Society	An attempt to give in-depth knowledge in the chosen field. And also to improve critical thinking abilities that are essential for future life.
	2 nd Semester	DSC-1(B)	Modern Indian Literature	An acquaintance with the contexts of the English literary tradition in India
	3 rd Semester	English-2(C)	Compulsory English	An attempt to enhance the aesthetic knowledge of students with prescribed novels, short stories and play. An also an attempt to enhance the rhetorical knowledge of the students.
		DSC-1 (C)	British Literature	An attempt to enhance the skill of drama.
		SEC	English Language Teaching	An attempt to teach the skills to use English Language. The four basic skills are taught

				with knowledge of using technology in English.
	4 th Semester	DSC-1(D)	Literature and Environment	The aim of this paper is to enhance the critical thinking of the students to analyze a piece of literature with an eco-consciousness.
		SEC-1	Translation Studies	This paper introduces the students to the theoretical foundations of translation studies.
	5 th Semester	SEC-3	Business Communication	An attempt to give principles and practices of effective business communication in various organizational contexts.
		DSE-1	Soft Skill	The aim of this paper is to teach the soft skill of leadership quality. It tries to teach the skill of teamwork, planning, and problem solving capabilities.
		GE-1	The Individual and Society	This paper aims to enhance the understanding of the students concerning the relationship of individual and society and how they influence each other.
	6 th Semester	SEC-4	Technical Writing	An attempt to enhance the skill of technical writing of the students. Also, this paper gives a basic knowledge of phonology and morphology of English grammar.
		DSE-1(B)	Language and Linguistics	An attempt to introduce the students to syntax and semantics. And to teach the role of language in shaping literary texts and cultural expressions.
		GE-2	Modern Indian Literature	An attempt to teach the diversity and voices of modern Indian literary works. The paper also highlights the evolution and themes and techniques of modern Indian language to sharpen the competency of the students concerning literary knowledge.

Syllabus Outcome: PG –English:

The M.A. syllabus in English is designed to introduce the students to the varied disciplinary offshoots in the present times. The focus of the syllabus is not only the centrality of English Studies in its ideological, aesthetical and socio-cultural aspects but also on its linguistic richness and evolution in influencing and evolving other regional literature and culture. The emergence of English language as a significant tool of post-colonial pluralistic perception of the world is also situated as a part of the academic enquiry in this syllabus. Moreover, the focus on research and its methodology provided here makes the students abreast with the latest developments in this field and also make them prepare for their self enquiry in future. Thus, going through such a syllabus a student can feel confident about appreciating the intricacies of literature as well as mastering the nuances of critically representing the socio-political and cultural values embedded within.

Core	Semester	Course	Name of the Paper	Course Outcome
	1 st Semester	ENG0101 (Core)	English Literature in Context	With ideas of texts and issues from Medieval to Twentieth century this paper tries to give a historical overview to the students.

		ENG0102 (Core)	Literary Criticism	This paper aims to impart knowledge of criticism from Aristotle to Modern age.
		ENG0103 (Core)	English Drama	This paper aims to enhance dramatic skill with prescribed dramas from Elizabethan to Modern age.
		ENG0104	Poetry -1	This paper enhances the aesthetic values regarding poetry from Geoffrey Chaucer to Romantic age. It tries to impart a historical and rhetorical ideas relating to the poetry of England.
		Eng0105	The English Novel: Victorian to Modern	This paper gives the ideas of the rise of the novel and its various techniques with prescribed texts.
		Eng0106 (Open Elective)	Literature and Environment	This paper tries to give ideas of eco-criticism with prescribed texts.
	2 nd Semester	Eng0201 (Core)	Literary Theory-1	This paper introduces some canonical essays to introduce basic knowledge of literary theory.
		Eng0202 (Core)	Northeast Indian Writing in English	This paper introduces the students with the unique characteristics of NE Literature in English.
		Eng0203 (Core)	Poetry-2	This paper dwells in poems from Victorian era to early modern age to impart the students an idea of historical overview of that era along with the poetic characteristics.
		Eng0204 (Core)	Indian Writing in English	This paper tries to impart Indian literature in English and an historical overview of it.
		Eng0205 (Optional-C-DSE)	Contemporary South Asian Fiction	Introduces the students to South Asian Literature.
		Eng0206 (Open Elective)	Linguistics	Introduces the basics of linguistics.
		3 rd Semester	Eng0301 (Core)	Literary Theory -2
	Eng0302 (Core)		Modern European Literature	Introduces the students to various European texts to impart the trend of European Literature.
	Eng0303 (Core)		Research Methodology	Introduces the students to Research work and Research methodology as they have a dissertation at 4 th Semester.
	Eng0304 DSE-A		Indian Fiction in English Translation	Introduces students to translated Indian texts.
	Eng0305 DSE-B (Optional)		Women's Writing	Introduces the students to gender study with prescribed texts.

	4 th Semester	Engo401 (Core)	Media studies	This paper introduces the basics of media study to students.
		Eng402 (Core)	Modern European Drama	This paper introduces the trend of modern drama in Europe.
		Eng0403 (Core)	American Literature	Introduces to the literature of America and its trends.
		Eng0404 DSE-C	Indian Fiction in English	This paper introduces some of the prominent partition novels to the students to impart an idea of post colonialism.
		Eng0405	Dissertation	Students are asked to write a dissertation based on the whole syllabus to give an idea and knowledge of research work.

Course Outcome-

By the end of this course M.A. students will have a comprehensive understanding of the key concepts and theories in post colonialism, gender studies African texts, media studies, hyper texts and NE studies. They will be able to critically analyse and evaluate texts from these diverse fields and apply theoretical frameworks to interpret them. The course will provide a comprehensive knowledge of the domain as well as its various aspects. It will also inspire the student to take up further studies and enquiry into the areas of unexplored doubt, dichotomy and overlapping in experiences.

Bachelor of Arts in History

History is one of the most respected and most valuable Academic subjects. It is one of the beneficial subjects for students as also in professional education. To know the origin of society, culture, tradition and chronology one should know its history. History is an unending dialogue between the past and the present. The study of History led to develop an understanding of the world; to become a more rounded person, understand the identity and culture, to inspire, to learn from mistakes and to develop transferrable skills; to understand the present-day issues, to understand the process of change over time. From History one can learn political intelligence; moral values, builds good citizenship learn from the past and notice clear warning signs and improve the personal growth.

After completing graduation in History one can try for jobs in various Competitive Examinations. The subject History especially the Modern History is included in almost in every competitive examination. Eligible for various Government jobs in the institutions just as museums, Archaeological survey of India and also engage in teaching jobs of Various Institutions and other administrative jobs etc.

Course Outcomes (B. A. Honours)

Course		Name of the paper	Course Outcome
Major Course	1 st Semester	Paper –C-1	Introduction to History In this Paper the students will learn about the objectives of History its Nature and Scope. They will also learn different schools of History for example Indian Historiography, Medieval Historiography, and Chinese Historiography etc.
		Paper –C-2	History of India (Earliest to 300CE) In this Paper the students will learn about the Indian History of Ancient times from Pre-History to Arrival of Bactrian Greeks, Scytho-Parthians and Kushanas. The Paper includes the great rulers of India and its Socio-Economic Condition and its Architecture and Culture.

		Paper: Ge-1	History of India (Earliest to 1206 A.D)	In this Paper the students will learn about the Indian History of Ancient times from Pre-History to Arrival of Bactrian Greeks, Scytho-Parthians and Kushanas. The Paper includes the great rulers of India and its Socio-Economic Condition and its Architecture and Culture. It also highlights about the Gupta Empire and their cultural development and also the foreign Invasion of Hunas, Arabs and Ghaznavids and Ghorids.
2 nd Semester		Paper –C-3	History of India(300-1206 AD)	In this paper the students will learn about the Gupta Empire and their cultural development and also the foreign Invasion of Hunas, Arabs and Ghaznavids and Ghorids.
		Paper -C-4	Rise of Modern West	In this Paper the students will learn about the origin of Feudalism, capitalism, mercantilism and colonialism. It also enlightens about the renaissance and reformation in the Europe and about industrial revolution and also emergence of European nation states.
		Paper: GE-2	History of India (1206-1757)	After the completion of this paper, the students will able to explore the sources of medieval India and able to understand the foundation and consolidation of the Delhi Sultanate as well as the rise of the contemporary Provincial kingdoms. It also highlights the State, society and Economy of medieval India. It also highlights from the establishment of Mughal dynasty and its consolidation in India. It also gives an idea about the socio-economic condition Mughal period. And also, about the religious movement of that particular period.
3 rd Semester		Paper: C-5	History of India (1206-1526 A.D)	After the completion of this paper, the students will able to explore the sources of medieval India and able to understand the foundation and consolidation of the Delhi Sultanate as well as the rise of the contemporary Provincial kingdoms. It also highlights the State, society and Economy of medieval India.
		Paper: C-6	History of Modern Europe I	After the completion of this course, the students will be able to analyze the Historical development in Europe between 1789-1870). As the Course structure of this paper focuses on the Democratic and Socialist foundations Modern Europe.

		Paper: C-7	History of Assam (Early to 1228 A.D)	This paper will give a general outline of the history of Assam from the earliest times to the advent of Ahoms in the 13 th century.
		SEC-1	An Introduction to Archaeology	This paper highlights about the definition and components of archaeology. Besides it analyses the research methodologies, field work and tools of research and also highlights about the historical sites and exploration
		Paper GE-3	History of India (1757-1947)	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. It also highlights about the growth of nationalism and the freedom movement of India
	4 th Semester	Paper: C-8	History of India (1526-1757 A.D.)	This paper gives highlights from the establishment of Mughal dynasty and its consolidation in India. It also gives an idea about the socio-economic condition Mughal period. And also, about the religious movement of that particular period.
		Paper: C-9	History of Assam (1228-1826) A.D.	On completion of this paper students will be able to identify major stages of developments in the political, social and cultural history of medieval Assam.
		Paper: C-10	History of Modern Europe	After the completion of this course, the students will be able to analyze the Historical development in Europe between 1871 to 1947. As the Course structure of this paper focuses on the Democratic and Socialist foundations Modern Europe
		Paper SEC-2	Historical Tourism: Theory and Practice	After completion of this course students will enlightens themselves about the art and architecture of India, field work visit to historical sites, conduction of research, museums and modalities of conducting tourism.
		Paper GE-4	Society and economy of Assam	On the completion of this paper students will acquaint with the socio economic condition of Ancient, Medieval, colonial Assam
		5 th Semester	Paper C-11	History of India (1757-1857)

		Paper C-12	History of Assam (1826-1947)	At the Completion of the Course, the learner will be able to analyze the course of British Colonial exploitation, the Socio Mobilization during the given period.
		Paper DSE-1	History of South East Asia-19 th & 20 th Century	After the completion of this paper students will enlightend about the opening of China and Japan, popular agitation in South East Asia and emergence of modern states like Burma, Indinesia , Cambodia and Vietnam etc.
		Paper: DSE-2	Ethno History of the Bodos	On the completion of this paper the learner will gain information about the concept of ethno history ans origin, migration and settlement, society and economy life of the Bodos.
	6 th Semester	Paper C-13	History of India (1857-1947)	After the completion of this paper students will able to acquire about the socio religious reform movements in India, trends of nationalism up to 1919. Besides the Gandhian national movement it also highlights the development of communal politics in India.
		Paper C-14	Ancient World Civilization	After completion of this course students will able to learn about the ancient civilization of Egypt, Mesopothamia, China, Greece and Rome. It also highlights political, social and cultural life of the ancient civilization prevail in those civilization
		Paper DSE-3	History of the USA (1776-1945 A.D)	This paper informs the students about the background and making of the American Republic. Besides this the paper highlights the evolution of American democracy and causes and consequences of American Civil War.
		Paper DSE-4	History of USSR (1917-1964 A.D)	At the Completion of the Course the learners will be able to analyze the causes of the Russian Revolution, formation of the USSR and the later development of USSR under the leadership of Lenin and Stalin and also the role of Soviet Russia in the World War-II

History Course Outcomes (B. A. Regular)

Course		Name of the paper	Course Outcome
Regular Course	1 st Semester	DSC-1A History of India (Earliest to 1206 A.D)	In this Paper the students will learn about the Indian History of Ancient times from Pre-History to Arrival of Bactrian Greeks, Scytho-Parthians and Kushanas. The Paper includes the great rulers of India and its Socio- Economic Condition and its Architecture and Culture. It also highlights about the Gupta Empire and their cultural development and also the foreign Invasion of Hunas, Arabs and Ghaznavids and Ghorids.

2 nd Semester	DSC-1B	History of India (1206-1757)	After the completion of this paper, the students will be able to explore the sources of medieval India and be able to understand the foundation and consolidation of the Delhi Sultanate as well as the rise of the contemporary Provincial kingdoms. It also highlights the State, society and Economy of medieval India. It also highlights from the establishment of Mughal dynasty and its consolidation in India. It also gives an idea about the socio-economic condition of the Mughal period. And also, about the religious movement of that particular period.
	DSC-1C	History of India (1757-1947)	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. It also highlights about the growth of nationalism and the freedom movement of India.
3 rd Semester	SEC-1	An Introduction to Archaeology	This paper highlights about the definition and components of archaeology. Besides it analyses the research methodologies, field work and tools of research and also highlights about the historical sites and exploration
	Paper: DSC1-D	Society and economy of Assam	On the completion of this paper students will acquaint with the socio-economic condition of Ancient, Medieval, colonial Assam
4 th Semester	Paper: SEC-2	Historical Tourism: Theory and Practice	After completion of this course students will enlighten themselves about the art and architecture of India, field work visit to historical sites, conduction of research, museums and modalities of conducting tourism.
	Paper SEC-3	Indigenous handicrafts of the Bodos	After the completion of this course, the students will be able to understand about the indigenous handicrafts of the Bodos. It also highlights about the employment generation and the practical training on the handicrafts
5 th Semester	Paper DSE 1 A	History of Europe (1780-1945)	After the completion of this course, the students will be able to analyze the Historical development in Europe between 1789-1870). As the Course structure of this paper focuses on the Democratic and Socialist foundations of Modern Europe. Besides, this paper focuses on the Democratic and Socialist foundations of Modern Europe

		Paper –GE-1	History of India (Earliest to 1206 A.D)	In this Paper the students will learn about the Indian History of Ancient times from Pre-History to Arrival of Bactrian Greeks, Scytho-Parthians and Kushanas. The Paper includes the great rulers of India and its Socio- Economic Condition and its Architecture and Culture. It also highlights about the Gupta Empire and their cultural development and also the foreign Invasion of Hunas, Arabs and Ghaznavids and Ghorids.
6 th Semester		Paper SEC-4	Project work (Field work and report writing)	This paper will contain field work and report writing
		Paper DSE-1B	Patterns of Colonialism (15 th -19 th Century)	After completion of this course students will be able to learn about the definition of colonialism and the zeal of the establishment of the colonial empire by Spain and Portugal, France and England in the entire world.
		Paper GE-2	History of India (1206-1757)	After the completion of this paper, the students will be able to explore the sources of medieval India and be able to understand the foundation and consolidation of the Delhi Sultanate as well as the rise of the contemporary Provincial kingdoms. It also highlights the State, society and Economy of medieval India. It also highlights from the establishment of Mughal dynasty and its consolidation in India. It also gives an idea about the socio-economic condition Mughal period. And also, about the religious movement of that particular period.

Department of Mathematics (Major)

Course		Name of the Paper	Course Outcome
Core Course	1 st Semester (CBCS BU)	Paper:CC1	Calculus(P) Hyperbolic functions, higher order derivatives, concavity and inflexion points, asymptotes...L Hospital Rule, Application in business, reduction formula, parametric equation..., triple product..., kepler's law etc.
		Paper:CC2	Algebra Polar representation of complex papers...,equivalence relations, division algorithm...,mathematical induction...,system of linear equations, linear independence, linear transformation, eigen value etc.
		Paper:CC5	Theory of Real Functions Limits of functions, uniform continuity theorem...,Differentiability, MVT, Taylor theorem...,Cauchy's MVT, Taylor series, McLaurin's series etc.

3 rd semester (CBCS BU)	Paper:CC6	Group Theory 1	Symmetries of a square, Dihedral groups, elementary properties of groups...,subgroups and its products...,Cyclic groups , Fermats Little theorem...,finite number group, homomorphism, second and third homomorphism theorems etc.
	Paper:CC7	PDE and Systems of ODE	Partial Differential equation, Method of separation of variables for solving 1 st order PDE...,Derivation of heat equation, wave equation..., The Cauchy Problem, Solving heat conduction problem..., Systems of linear differential equations etc.
5 th semester (CBCS GU)	Paper:MAT- HC-5016	Riemann Integration and Metric spaces	Riemann integration: upper and lower sums, Improper integrals, gamma functions..., Metric spaces definition & examples, cantor's theorem, subspace..., continuous mapping, connectedness etc.
	Paper:MAT- HC-5026	Linear Algebra	Vector spaces and subspaces, co-ordinate systems, dimension of a vector space, rank...,eigenvectors and eigenvalues of a matrix...,Inner product, length and orthogonality, Diagonalization of symmetric matrices, spectral theorem etc.
	Paper:MAT- HE-5016	Number Theory	Linear Diophantine equation, prime counting function, complete set of residues, Chinese remainder theorem..., Number theoretic functions, sum and number of divisors, Euler's theorem, reduced set of residues etc.
	Paper:MAT- HE-5056	Spherical Trigonometry and Astronomy	Section of sphere by plane, sine-cosine formula, Napier's rule of circular parts...,The standard celestial sphere, dip of the horizon...,planetary motion: annual motion of sun, synodic period, Kepler's law of planetary motion, direct and retrograde motion in a plane, differential equation fore fraction, shape of the disc of the sun etc.

Course		Name of the Paper	Course Outcome
2 nd Semester (CBCS	Paper:CC3	Real Analysis	Review of Algebraic and order properties of R, Illustrations of Bolzano-Weierstrass theorem for sets...,sequences, Cauchy's convergence criterion..., Infinite series, absolute and conditional convergence etc.

Core Course	BU)	Paper-CC4	Differential Equations	differential equation and mathematical models, Special IF and transformations...,compartmental model, limited growth with harvesting , Bernoulli's equation..., Homogeneous equation, method of variation of parameter etc.
	4 th semester (CBCS BU)	Paper:CC8	Numerical Methods	Algorithms, Convergence...,Transcendental and polynomial equation..., system of linear algebraic equation...,interpolation...,Numerical integration...,ODE etc
		Paper:CC9	Reimann integration and Series of Functions	Reimann integration..., fundamental theorem of calculus, improper integrals...,pointwise and uniform convergence..., Limit superior and limit inferior, Abel's theorem, Cauchy Hadamard theorem etc.
		Paper:CC10	Ring Theory and Linear Algebra 1	Definition and examples of rings and its properties, prime and maximal ideals...,ring homomorphisms , field of quotient..., Vector spaces, subspaces, basis and dimension..., linear transformation, invertibility and isomorphism etc.
	6 th semester (CBCS GU)	Paper:MAT-HC-6016	Complex Analysis (including practical)	Properties of complex numbers, limits, continuity..., Analytic functions, logarithmic functions, definite integrals of functions..., contours, upper bounds for moduli of contour integrals, Antiderrivatives, Cauchy's integral formula..., convergence of sequence and series etc.
		Paper:MAT-HC-6026	Partial Differential Equations (including practical)	Construction of 1 st order PDE, linear equations of 1 st order , Cauchy's method of characteristics, Charpit's method, Jacobi's method...,Canonical form of 1 st order PDE...,the vibrating string, vibrating membrane...,Reduction to canonical forms etc.
		Paper:DSE-3	Project	
		Paper:MAT-HE-6066	Group Theory II	Isomorphisms, automorphisms, external direct products of groups and their properties...,Normal subgroups, factor groups and their applications...,Conjugacy classes, The class equation, The Sylow theorems...Finite simple group , generalized Cayley's theorem, index theorem etc.

Department of Mathematics (Regular)

Course		Name of the Paper	Course Outcome	
Core Course	1 st Semester (CBCS BU)	Paper:DSC-1(A)	Differential Calculus	Limits and continuity, discontinuity, Differentiability, partial differentiation, Leibnitz's Theorem, Tangents and normal, Asymptotes, singular points, Curve tracing, Rolle's theorem, MVT, Taylor's theorem, Taylor's series, Mclaurin's series, Maxima and minima, Indeterminate forms.
	3 rd semester (CBCS BU)	Paper:DSC-1(C)	Real Analysis	Finite and Infinite sets, Real line, Bounded Sets, Suprema and infima, completeness Property of R, Cluster points, Real sequence, Bounded Sequence, Cauchy's convergence criterion for sequence, Infinite series, Root test, Ratio test, Alternating series, Sequence and series of functions, Mn test, M test, Power series and radius of convergence etc.
		Paper:SEC-1	Analytical Geometry	Techniques for sketching Parabola, Ellipse and hyperbola. Classification of quadratic equations representing lines, parabola, hyperbola. Spheres, cylindrical surfaces etc.
	5 th semester (CBCS GU)	Paper:MAT-RE-5116	Number Theory	. Linear Diophantine Equation, Prime counting function, Goldbach Conjecture, Linear Congruences, Complete set of residues, Chinese Remainder theorem, Wilson's theorem, Number theoretic functions, Multiplicative functions, Dirichlet Product, The Mobius inversion formula, Euler's Phi function, Euler theorem, Reduced set of residues etc.

Course		Name of the Paper	Course Outcome	
	2 nd Semester	Paper:DSC-	Algebra	Definition and examples of groups, Abelian and non-abelian groups, the group Z_n of integers under addition modulo n . Cyclic groups from number systems,,

Core Course	(CBCS BU)	1(B)		complex roots of unity, circle group, group of symmetries of triangles, rectangle, square, subgroups, cyclic subgroups, Cosets, index of subgroup, Quotient groups, Definition and example of rings, subrings and ideals, integral domains and fields, Field of rational functions etc.
	4 th semester (CBCS BU)	Paper:DSC-1(D)	Differential Equations	First order exact differential equations, IF, Methods for higher order DE, Basic theory of LDE, Wronskian, Linear homogeneous equation with constant coefficients, Linear Non homogeneous equation, method of variation of parameters, The Cauchy Euler equation, Total differential equation, Order and degree of PDE, Linear and non linear PDE, Linear PDE of first order, Lagrange's method, Charpit's method etc.
		Paper:SEC-3	Vector Calculus	Differentiation and partial differentiation of a vector function. Derivative of sum, dot product and cross product of two vectors. Gradient, Divergence, Curl.
	6 th semester (CBCS GU)	Paper:MAT-RE-6116	Numerical Analysis	Gaussian Elimination method, Gauss Jordan method, Jacobi method, Gauss seidel method, Interpolation: Lagrange form, Newton form, Gregory Newton forward and backward difference interpolation, piecewise polynomial interpolation, Numerical differentiation, 1 st and 2 nd order derivatives, Numerical Integration, Extrapolation method, ordinary DE: Euler method, Modified Euler method etc.

Programme Outcome:

1. Students will acquire the basic subject Knowledge required for higher studies.
2. Students will be able to communicate effectively by oral, written, computational and graphic means.
3. This programme will help students in improving their employability for positions in the Education, Banking, Insurance, Investment Sectors and other public and private organizations.

Programme Specific Outcome:

1. Create mathematical ideas from basic axioms.
2. Gauge the hypothesis, theories, techniques and proofs provisionally.
3. Utilize mathematics to solve theoretical and applied problems by critical understanding, analysis and synthesis.
4. Identify applications of mathematics in other disciplines.
5. Learn to apply the knowledge of Mathematics to solve the real life problems.
6. Feel the necessity of exploring the opportunities for enhancement of career prospects in different fields through mathematical knowledge.
7. Appreciate the requirement of lifelong learning through continued education and research.

BA (Major) Philosophy 2022 - 2023

Course		Name of the paper	Course Outcome	
Core Course	1 st Semester B.U. CBCS	Paper: C-1	Indian Philosophy	In this paper students will learn the basis of Indian Philosophy such as Vedas, Upanisads and Bhagavad-gita. Also learn nine Vadic and non-vadic system of Indian philosophy. All systems include epistemological, metaphysical and ethical discussions which will help students to find out the structure of Indian Philosophy.
		Paper C-2	Logic	In this paper students will learn about main concept of logic such as proposition, Argument, Deduction and Induction. Again, students will clear about Aristotelian logic, Venn Diagram and set notation etc. which are more essential for Logic.
	2 nd Semester B.U. CBCS	Paper C-3	Greek Philosophy	In this paper students will learn mainly pre-Socrates philosophy and their views regarding ultimate staff in this universe. Also, from Socrates to Aristotle conception of virtue, knowledge, matter and form, causality etc.
		Paper C-4	Ethics	In this paper students will learn about moralities which are more essential for social life. Non-violence, , compassion, forgiveness etc are main concepts in this paper which will applied students in their day to day life.
	3 rd Semester B.U	Paper C-5	Western Philosophy (Descartes to Hegel)	This paper helps students to know about western philosophers from Descartes to Hegel and their's theory of knowledge as because these philosophers mainly discuss about the theory of knowledge.
		Paper C-6	Social & Political Philosophy	This paper will helps students to learn the concept of mans rights and duties, concept of equality, liberty etc. Also students learn nationalism of Rabindranath Thakure, Gandhijis concept of society, M. N. Ray's new political philosophy, Hamid Dalwais "On Secularism", R. Dworkin's equality, I. Berlin's "Two concept of Liberty" etc.
		Paper C-7	Applied Ethics	In this paper students will learn the concepts of applied ethics such as virtue, punishment, professional ethics, environmental ethics, suicide, female foeticide, medical ethics, media ethicsetc. which will help students to live practically, peacefully and progressively in society.
	4 th Se me	Paper C-8	Text of Indian Philosophy	In this paper students will learn Nyayabindu of Dharmakirti with Dharmottara's Tika.

	Paper C-9	Text of Western Philosophy	This paper helps students to learn about Sartre's text "Existentialism and Humanism", Heidegger's "Letter on Humanism", Richard Rorty's "Philosophy and the Mirror of Nature" and Thomas Nagel's "The Last Word" etc.
	Paper C-10	Truth functional Logic: Propositional and Predicate	Students learn from this paper about symbolic connective and their relation, Direct & Indirect truth table method and Proofing validity etc.
5 th Semester B.U	Paper C-11	Analytical Philosophy	In this paper students will find about various analytical philosophers such as B. Russell, A.J. Ayer, G.E. Moore etc. The concept of appearance and reality, Knowledge by acquaintance and knowledge by description, metaphysics rejection by Ayer, Defence of common Sense etc.
	Paper C-12	Continental Philosophy	In this paper students will know about Continental philosopher such as Hegel, Heidegger, Sartre, Merleau Ponty etc.
	Paper DSE-1	Philosophy of Logic	In this paper the students will come to know about the concept of Logical Appraisal, Formal Logic, Truth-function & Deductive system of Truth Function etc..
	Paper DSE-2	Aesthetics	This paper includes the necessity of beauty through some Aesthetic philosopher's such as M. Hiriyanna, Ananda K Coomaraswamy through the concept "The Theory of Art in India"
	Paper C-13	Philosophy of Religion	This paper will help the students to gain knowledge about nature of religion and its distinction from Theology, existence of God, religious experience, religious pluralism, concept of Bhakti, concept of dharma, doctrine of Karma and Rebirth etc.
6 th Sem. B.U	Paper C-14	Philosophy of Language	This paper will help to increase the knowledge about the relation of Language with the World, Philosophy of Language, verbal knowledge etc.
	Paper DSE-3	Philosophy of Science	This paper will help to increase the knowledge about Hume's Problem of Induction, Observation and Experiment, Change and Rationality in Science by Popper and Lakatos, Kuhn and Feyerabend etc.
	Paper DSE-4	Philosophy of Law	With the help of this paper the students will know about the Traditional natural Law Theory, Constitutional law, Criminal law, Contract law etc. which will help students for protection their life.

BA(REGULAR) Philosophy 2022 - 2023

Course	Name of the paper	Course Outcome
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Core Course	1 st Semester B.U. CBCS	Paper: DSC-1A	Logic	In this paper students will learn about main concept of logic such as proposition, Argument, Deduction and Induction. Again, students will clear about Aristotelian logic, Venn Diagram and set notation etc. which are more essential for Logic.
	2 nd Semester B.U. CBCS	Paper: DSC-1B	Ethics	.In this paper students will learn about moralities which are more essential for social life. Non-violence, , compassion, forgiveness etc are main concepts in this paper which will applied students in their day to day life.
	3 rd Semester B.U CBCS	Paper: DSC-1C	Indian Philosophy	In this paper students will learn the basis of Indian Philosophy such as Vedas, Upanisads and Bhagavad-gita. Also learn nine Vadic and non-vadic system of Indian philosophy. All systems include epistemological, metaphysical and ethical discussions which will help students to find out the structure of Indian Philosophy.
		Paper: SEC-1	Critical Thinking and Decision Making	Upon Completion of the course, students will be able to understand the situation and apply the thought, solving problems in competitive examination.
	4 th Semester B.U CBCS	Paper: DSC-1D	Western Philosophy	Upon completion of the course, students will be able to understand the philosophical principles of Greek Philosophy along with the epistemology and metaphysical problems of philosophy
		Paper: SEC-2	Art and Film Appreciation	Students will analyze and interpret various forms of art and film, demonstrating a deeper understanding of their cultural significance, historical context and aesthetic elements through critical examination and reflection.
	5 th Semester B.U. CBCS	Paper: SEC-3	Ethical Decision Making	Students will be able to analyze complex ethical dilemmas from various perspectives, applying ethical theories and frameworks to assess potential courses of action and make well-reasoned decisions that prioritize ethical principles and values.
		Paper: DSE-1A	Buddhism	Understandings the four Noble Truths, and Key Buddhist teachings, practices, and historical developments to cultivate mindfulness, compassion and wisdom in daily life and society.
		Paper: GE-1	Logic	In this paper students will learn about main concept of logic such as proposition, Argument, Deduction and Induction. Again, students will clear about Aristotelian logic, Venn Diagram and set notation etc. which are more essential for Logic.
	6 th Sem. B.U CBC	Paper: SEC-4	Yoga Philosophy	Understand the philosophical foundations of yoga, including concepts like Patanjali's sutras, the paths of Yoga, and the integration

			of spiritual principles into practice for holistic well being and self-realization.
	Paper: DSE-1B	Greek Philosophy	Upon completion of the course, students will be able to understand the philosophical principles of Greek Philosophy along with the epistemology and metaphysical problems of philosophy
	Paper : GE-2	Ethics	In this paper students will learn about moralities which are more essential for social life. Non-violence, , compassion, forgiveness etc are main concepts in this paper which will applied students in their day to day life.

**DEPARTMENT OF PHYSICS
COURSE-MAJOR/HONOURS**

SEMESTER	PAPER	COURSE	COURSE OUTCOMES
B SC 1ST SEMESTER HONOURS	PHY-101H THEORY	CC1: Mathematical Physics I	Students will be able to understand vector and its applications in various fields of Physics, differential equations and its applications, different coordinate systems, concept of probability and error.
	PHY-101H LAB		Students will learn about the basics of computer programming using python and how to analyze numerical and solve problems in Physics using computational physics.
	PHY-102H THEORY	CC2:Mechanics	On successful completion of the course students will be able understand about the fundamentals of dynamics, work and energy, Elastic and inelastic collisions, moment of inertia, motion under central force, simple harmonic oscillations, special theory of relativity.
	PHY-102H LAB	Mechanics	Students will able to measure the length, diameter, volume using screw gauge, slide caliper, value of g using bar pendulum and Kater's pendulum, moment of inertia of flywheel, height of building using sextant and their theoretical knowledge will be cleared after going through these experiments.
B SC 2ND SEMESTER HONOURS	PHY-201H THEORY	CC3:Electrical and Magnetism	Students will be able to understand electric and magnetic fields in matter, magnetic properties of matter, electromagnetic induction, and applications of Kirchoff's law in different circuits, applications of different network theorem in electrical circuits.
	PHY-201H LAB		After the completion of this practical paper, the students will learn about the use a Multimeter for measuring Resistances, AC and DC Voltages, DC Current, Capacitances, and Checking electrical fuses, study the characteristics of a series RC

			Circuit, determination of an unknown Low Resistance using Potentiometer, determination of self inductance of a coil by Anderson's bridge
	PHY-202H THEORY	CC4:Waves &Optics	After successful completion of this course, students will acquire knowledge on superposition of harmonic oscillations, Superposition of Two Perpendicular Harmonic Oscillations, interference and interferometer, diffraction, holography, wave optics.
	PHY-202H LAB		Students will able to determine wavelength of sodium light using Fresnel Biprism, study Lissajous Figures in the laboratory.
B SC 3 RD SEMESTER HONOURS	PHY-301H THEORY	CC5:Mathematical Physics II	After successful completion of the course, students will be able to solve differential equation using Frobenius Method and Special Functions, solve differential equation using separation of variables method, special integrals, different properties of matrix, Fourier series
	PHY-301H PRACTICAL		Students will learn to use the computational methods to solve physical problems using python programming language.
	PHY-302H THEORY	CC6:Thermal Physics	Upon successful completion, students will have the knowledge and skills to identify and describe the statistical nature of concepts and different laws in thermodynamics, in particular: entropy, temperature, Thermodynamics potentials, , Maxwell's relations in thermodynamics, behavior of real gases
	PHY-302H LAB		Students will get the practical knowledge about how to determine Mechanical Equivalent of Heat, J, by Callender and Barne's constant flow method, to determine the Coefficient of Thermal Conductivity of a bad conductor by Lee and Charlton's disc method.
	PHY-303H THEORY	CC7:Digital Systems & Applications	After successful completion of the course student 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, classify different semiconductor memories, Analyze, design and implement sequential logic circuits, analyze digital system design using PLD, Simulate and implement combinational and sequential circuits.
	PHY-303H LAB		Students will learn to design electronic circuits in breadboard, learn how to use the multimeter, CRO.

B SC 4TH SEMESTER HONOURS	PHY-401H THEORY	CC8:Mathematical Physics III	Students will able to solve complex integrals using residue theorem, apply Fourier and Laplace transforms in solving differential equations, understand properties of Tensor like Transformation of coordinates, contravariant and co-variant tensors, indices rules for combining tensors and applications in physics.
	PHY-401H LAB		Student will able to solve differential equations, Fourier series, Laplace transforms using python
	PHY-402H THEORY	CC9:Elements of Modern Physics	On completion of the course students will be able to understand Quantum Theory and Blackbody Radiation, Starting from Planck's law, it development of the idea of probability interpretation and the formulation of Schrodinger equation. Students will also get preliminary idea of structure of nucleus, radioactivity Fission and Fusion and Laser
	PHY-402H LAB		Students will able to calculate Planck's constant using black body radiation and photo-detector
	PHY-403H THEORY	CC10:Analog Systems & Applications	On successful completion of the course students will be able to understand about the pn junction diode and its application in the device design 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, students will also have an understanding of operational amplifiers and their applications.
	PHY-403H LAB		Students will able to design the circuits like PN junction diode, Zener diode, solar cell to study the V-I characteristics, transistor amplifier circuits, oscillator circuits using bread board.
B SC 5TH SEMESTER HONOURS	PHY-501H THEORY	CC11: Quantum Mechanics & applications	After the completion of this course, the students will learn about development of quantum mechanics in light of Black body radiation, failure of classical idea, Matter wave, Complimentary principle of Neils Bohr, Heisenberg's Uncertainty Principle, Wave function and its probabilistic interpretation as probability amplitude, Introduction to operator formalism, Dynamical variable as operator.
	PHY-501H LAB		Students will able to solve the problems of quantum mechanics using computer alngauge
	PHY-502H THEORY	CC-12: Solid State Physics	The students will get to know about the structure of a solid and also the concept of the magnetic properties of matter. Students will learn to determine the dielectric

B SC 6TH SEMSETER	PHY-502H LAB		constants , study about the hysteresis loop etc.
	PHY-503H THEORY	DSE-1A: Advanced Mathematical Physics- I	students will be able to solve problems in Physics related to Linear Vector space, Matrix algebra, Tensor.
	PHY-503H LAB		Students will able to solve the problems of advanced mathematical problems and simulation using python programming language.
	PHY-504H THEORY	DSE-2A: Nuclear and Particle Physics	Upon completion of this course, students will have the understanding of the sub atomic particles and their properties. They will gain knowledge about the different nuclear techniques and their applications in different branches of Physics and societal application.
	PHY-601H THEORY	CC- 13:ElectromagneticTh eory	Students will acquire the concepts of Maxwell's equations, propagation of electromagnetic (EM) waves in different homogeneous-isotropic as well as anisotropic unbounded and bounded media, production and detection of different types of polarized EM waves, general information as waveguides and fibre optics etc.
	PHY-601H LAB		Students will able to operate the instrument for the study of Stefan's constant and various optical instruments.
	PHY-602H THEORY	CC-14: Statistical Mechanics	On successful completion of the course, techniques of Statistical Mechanics to apply in various fields including Astrophysics, Semiconductors, Plasma Physics, Bio-Physics, Chemistry and in many other directions will be learned.
	PHY-601H LAB		Students will able to solve the problems of statistical mechanics mathematical problems and simulation using python programming language.
	PHY-603H	DSE-3A: Classical Dynamics	Students will have the overview of Special Theory of Relativity by 4-vectoer approach and fluids. Students will also have the understanding of the Lagrangian and Hamiltonian of a system. By the end of this course, students will be able to solve the seen or unseen problems/numerical in classical mechanics.
	PHY-604H THEORY	DSE- 4A:ExperimentalTech niques	Students will be able to describe the errors in measurement and statistical analysis of data required while performing an experiment. Also, students will learn the working principle, efficiency and applications of transducers & industrial instruments like digital multimeter, RTD, Thermistor, Thermocouples and Semiconductor type temperature sensors.
PHY-604H LAB			

		Students will be able to design the electronic circuits using sensors and be able to know the working of various sensors
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COURSE: REGULAR/GENERIC ELECTIVE (GE)

SEMESTER	PAPER	COURSE	COURSE OUTCOME
B SC 1ST SEMESTER	PHY-101R	DSC-1A/ GE-1 : Mechanics	On successful completion of the course students will be able to understand about the fundamentals of dynamics, work and energy, Elastic and inelastic collisions, moment of inertia, motion under central force, simple harmonic oscillations, special theory of relativity. In the laboratory course, after acquiring knowledge of how to handle measuring instruments (like screw gauge, Vernier calipers, travelling microscope) student shall embark on verifying various principles and associated measurable parameters
B SC 2ND SEMESTER	PHY-201R	GE-2/DSC-1B:Electricity, Magnetism and EMT	Students will be able to understand electric and magnetic fields in matter, magnetic properties of matter, electromagnetic induction, and applications of Kirchoff's law in different circuits, applications of different network theorem in electrical circuits. In the Lab course, students will be able to measure resistance (high and low), Voltage, Current, self and mutual inductance, capacitor, strength of magnetic field and its variation, study different circuits RC, LCR etc.
B SC 3RD SEMESTER	PHY-301R	GE-3/DSC-1C: Thermal Physics & Statistical Mechanics	Students are expected to learn the basics of thermodynamics, the first and the second law of thermodynamics, the concept of entropy and the associated theorems, the thermodynamic potentials and their physical interpretations, Maxwell's thermodynamic relations, fundamentals of the kinetic theory of gases, Maxwell-Boltzmann 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 Planck's constant using black body radiation, determine Stefan's Constant, etc.

B SC 4TH SEMESTER	PHY-401R	GE-4/DSC-1D Waves & Optics	Students are expected to understand Superposition of Two Collinear Harmonic Oscillations and Superposition of Two Perpendicular Harmonic Oscillations, importance of classical wave equation in transverse and longitudinal waves and solving a range of physical systems on its basis, concept of normal modes in transverse and longitudinal waves: their frequencies and configurations, interference as superposition of waves from coherent sources derived from same parent source, properties of fluid like surface tension, viscosity. In the laboratory course, student will gain hands-on experience of using various optical instruments and making finer measurements of wavelength of light using Newton Rings experiment, Fresnel Biprism etc. Resolving power of optical equipment, the motion of coupled oscillators, study of Lissajous figures and behaviour of transverse, longitudinal waves.
B Sc 5th Semester	PHY-501R	DSE-1A: Mathematical Physics	Students will learn about the vector algebra, vector calculus and curvilinear coordinate systems, partial differential equations, Legendre polynomials, Fourier series
B Sc 6th Semester	PHY-601R	DSE-1B: Elements of modern physics	Students will gather knowledge about the basics of quantum mechanics and its applications, the basic nuclear physics and its applications . the course is helpful for higher studies in physics and also in research works

COURSE: SKILL ENHANCEMENT COURSE

SEMESTER	PAPER	COURSE	COURSE OUTCOME
B SC 3RD SEMESTER	PHY-SE-3014	Physics Workshop Skills	Course will enable the students to familiar and experience with various mechanical skill like drilling, cutting, molding, soldering and electrical tools through hands-on mode,
B SC 4TH SEMESTER	PHY-SE-4014	Basic Instruments Skills	After the successful completion of this skill enhancement paper, the students will familiar with the hands-on applications about basic of measurement, uses of voltmeter for measurement of voltages, Cathode Ray Oscilloscope for instantaneous measurement of voltage, current, time, frequency.

B.A. IN POLITICAL SCIENCE (MAJOR)

COURSE		NAME OF THE PAPER	COURSE OUTCOME
COR E COU	1ST SEME STER C1	POLITICAL THEORY-I	In this paper introduce the students to the idea of political theory, its history and the approaches and its critical analysis.

		C2	POLITICS IN INDIA	This course acquaints students with the constitutional design of the Indian state, structures and institutions, and their actual working.
	2 ND SEMESTER	C3	POLITICAL THEORY- II	It helps the students familiarize with the normative concepts like democracy development, justice and multiculturalism which are related to a crucial political issue that requires analysis with the help of conceptual understanding. It also helps the students to understand the nature of state in third world countries by applying the theories like neo colonialism and dependency theories.
		C4	POLITICS IN INDIA –II	The paper helps to know the students about the constitutional structure of centre and state government and its relation, parties in India and election system and election commission. It also helps us to know about the hindrances to national integration like terrorism, regionalism, casteism etc.
	3 RD SEMESTER	C-5	COMPARATIVE GOVERNMENT AND POLITICS	The course familiarize the students with the basic concepts and approaches to the study of comparative politics. Moreover the course has focused on examining the politics in historical framework while engaging with various themes of comparative analysis in developed and developing countries.
		C-6	PUBLIC ADMINISTRATION	The course deals with the meaning nature and significance of the public administration. It encompasses public administration in its historical context with an emphasis on the various classical and contemporary theories. It also provides a comprehensive understanding on contemporary trends and developments of public administration.
		C-7	INTERNATIONAL RELATIONS	The course familiarize the students with important theoretical approaches for studying international relations. It provides a comprehensive overview of the major political developments and events starting from twentieth century.
	4 TH SEMESTER	C-8	COMPARATIVE GOVERNMENTS - II	In this course students will be trained in the application of comparative methods to the study of politics. The course is comparative in both what we study and how we study. In the process the course aims to introduce undergraduate students to some of the range of issues, literature, and methods that cover comparative political. federalism.

	C-9	PUBLIC POLICY IN INDIA	The paper seeks to provide an introduction to the interface between public policy and administration in India. The essence of public policy lies in its effectiveness in translating the governing philosophy into programs and policies and making it a part of the community living. It deals with issues of decentralization, financial management, citizens and administration and social welfare from a nonwestern perspective
	C-10	GLOBAL POLITICS	This course introduces students to the key debates on the meaning and nature of globalization by addressing its political, economic, social, cultural and technological dimensions. In keeping with the most important debates within the globalization discourse, it imparts an understanding of the working of the world economy, its anchors and resistances offered by global social movements while analyzing the changing nature of relationship between the state and trans-national actors and networks. The course also offers insights into key contemporary global issues such as the proliferation of nuclear weapons, ecological issues, international terrorism, and human security before concluding with a debate on the phenomenon of global governance.
	C- 11	CLASSICAL POLITICAL THEORY	This course goes back to Greek antiquity and familiarizes students with the manner in which the political questions were first posed. Machiavelli comes as an interlude inaugurating modern politics followed by Hobbes and Locke. This is a basic foundation course for students.
5 TH SEMESTER	C-12	INDIAN POLITICAL THOUGHT-I	This course introduces the specific elements of Indian Political Thought spanning over two millennia. The basic focus of study is on individual thinkers whose ideas are however framed by specific themes. The course as a whole is meant to provide a sense of the broad streams of Indian thought while encouraging a specific knowledge of individual thinkers and texts. Selected extracts from some original texts are also given to discuss in class. The list of additional readings is meant for teachers as well as the more interested students.
	DSE - 1	HUMAN RIGHTS	This course attempts to build an understanding of human rights among students through a study of specific issues in a comparative perspective. It is important for students to see how debates on human rights have taken distinct forms historically and in the contemporary world. The course seeks to anchor all issues in the Indian context, and

6 TH SEMESTER			pulls out another country to form a broader comparative frame. Students will be expected to use a range of resources, including films, biographies, and official documents to study each theme. Thematic discussion of sub-topics in the second and third sections should include state response to issues and structural violence questions.
	DSE - 2	WOMEN AND POLITICS	This course opens up the question of women's agency, taking it beyond 'women's empowerment' and focusing on women as radical social agents. It attempts to question the complicity of 44 social structures and relations in gender inequality. This is extended to cover new forms of precarious work and labour under the new economy. Special attention will be paid to feminism as an approach and outlook. The course is divided into broad units, each of which is divided into three sub-units.
	C- 13	MODERN POLITICAL PHILOSOPHY	Philosophy and politics are closely intertwined. We explore this convergence by identifying four main tendencies here. Students will be exposed to the manner in which the questions of politics have been posed in terms that have implications for larger questions of thought and existence.
	C- 14	INDIAN POLITICAL THOUGHT-II	Based on the study of individual thinkers, the course introduces a wide span of thinkers and themes that defines the modernity of Indian political thought. The objective is to study 49 general themes that have been produced by thinkers from varied social and temporal contexts. Selected extracts from original texts are also given to discuss in the class. The list of additional readings is meant for teachers as well as the more interested students.
	DSE - 3	SOUTH ASIA	The course introduces the historical legacies and geopolitics of South Asia as a region. It imparts an understanding of political regime types as well as the socio economic issues of the region in a comparative framework. The course also apprises students of the common challenges and the strategies deployed to deal with them by countries in South Asia.

	DSE - 4	INDIA'S FOREIGN POLICY	This course's objective is to teach students the domestic sources and the structural constraints on the genesis, evolution and practice of India's foreign policy. The Endeavour is to highlight integral linkages between the 'domestic' and the 'international' aspects of India's foreign policy by stressing on the shifts in its domestic identity and the corresponding changes at the international level. Students will be instructed on India's shifting identity as a postcolonial state to the contemporary dynamics of India attempting to carve its identity as an 'aspiring power'. India's evolving relations with the superpowers during the Cold War and after, bargaining strategy and positioning in international climate change negotiations, international economic governance, international terrorism and the United Nations facilitate an understanding of the changing positions and development of India's role as a global player since independence.
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B.A. IN POLITICAL SCIENCE (general)

COURSE		NAME OF THE PAPER	COURSE OUTCOME
1 ST SEMESTER	DSC 1A	PLITICAL THEORY (CBCS UNDER B.U.)	In this paper students will study about political theory and its approaches and major concepts of political theory like democracy, liberty, equality, justice, gender, citizenship, civil society and state.
	DSC 1B	POLITICS IN INDIA (CBCS UNDER B.U.)	The paper familiarizes the students with the approaches to study the Indian politics and the state in India. More over it provides a basic understanding about Indian constitution, its government, power structure, party system, social movements, religion and politics and the strategies of development in Indian since independence.
3 RD SEMESTER	POL-RC-3016	COMPARATIVE GOVERNMENT AND POLITICS (CBCS UNDER B.U.)	This paper will help to increase the knowledge about comparative politics. It also provides the students a basic understanding of comparative political analysis, the classification of political system from a comparative politics framework, classification of government and the political behaviour of institutions and the changes in the nature of nation state.
	POL-SE-3014	DEMOCRATIC AWARENESS (SEC-	The student should be aware of the institutions that comprise the legal system - the courts, police,

		D) (CBCS UNDER B.U.)	jails and the system of criminal justice administration. Have a brief knowledge of the Constitution and laws of India, an understanding of the formal and alternate dispute redressal (ADR) mechanisms that exist in India, public interest litigation. Have some working knowledge of how to affirm one's rights and be aware of one's duties within the legal framework; and the opportunities and challenges posed by the legal system for different sections of persons. This course consists of 100 marks - comprising 25 marks for evaluation of the practical/ project work and a written paper of 75 marks.
4 TH SEMESTER	POL-DSC-2A-4016	INTRODUCTION TO INTERNATIONAL RELATIONS (CBCS UNDER B.U.)	With the help of this paper the students will be able to understand the methods of inquiry in international relation, the foundational theories and concepts of international relation, current world events and their implications Indian foreign policy decision making process.
	POL-SE-4014	PEACE STUDY, SEC-2 (CBCS UNDER B.U.)	The objective of an undergraduate application course for common students in Peace and Conflict Studies will cover in-depth knowledge of conflict analysis, conflict resolution, conflict prevention, as well as the historical and cultural context of organized violence. Peace and Conflict Resolution addresses the sources of war, social oppression and violence and the challenges of promoting peace and justice internationally and domestically. It also introduces more equitable, cooperative and nonviolent methods that can be used to transform unjust, violent or oppressive world situations. This course provides students with an overview of the Peace and Conflict Studies discipline, including key concepts and related theories. The course is designed to familiarize students with the historical background of various peace movements, to analyze principles used to resolve conflict, and to provide a view of how peace and conflict resolution are being pursued today. The course will also cover extensive understanding of current research and development within the field of peace and conflict studies and perspective of the environment, gender, migration, and ethnicity
5 TH SEMESTER	POL-SE-5014	PUBLIC OPINION & SURVEY RESEARCH, SEC-3	This course will introduce the students to the debates, principles and practices of public opinion polling in the context of democracies, with special reference to India. It will familiarize the students with how to conceptualize and measure public opinion using quantitative methods, with particular attention being paid to developing basic skills pertaining to the collection, analysis and utilization of quantitative data.

		PAPER 1	COMPARATIVE POLITICAL THEORY, DSE-I(A)	This course aims to familiarize students with the need to recognize how conceptual resources in political theory draw from plural traditions. By chiefly exploring the Indian and Western traditions of political theory through some select themes, the overall objective is to appreciate the value and distinctiveness of comparative political theory.
		POL-GE-I	POLITICAL THEORY (GE-I)	This course aims to introduce certain key aspects of conceptual analysis in political theory and the skills required to engage in debates surrounding the application of the concepts.
	6 TH SEMESTER	POL-SE-	LEGISLATIVE SUPPORT (SEC-4)	To acquaint the student broadly with the legislative process in India at various levels, introduce them to the requirements of peoples' representatives and provide elementary skills to be part of a legislative support team.
		POL-DSE-2B	ADMINISTRATION AND PUBLIC POLICY (DSE-2B)	To acquaint the student broadly with the administration and public policy of executive departments.
		POL-GE-2	POLITICS IN INDIA (GE-2)	To acquaint the student broadly with Approaches to the Study of Indian Politics and Nature of the State in India and to understand Indian Constitution.

DEPARTMENT OF ZOOGY
COURSE: HONOURS/REGULAR (Under BU Syllabus)

SEMESTER	PAPER	COURSE	COURSE OUTCOMES
B SC 1 ST SEMESTER HONOURS	ZOO-101H Theory	CC-1: Non-chordates I: Protista to Pseudocoelomates	Students will be able to understand about invertebrates and acquired the knowledge on Protista, Parazoa, Metazoan, Porifera, Cnidaria, Ctenophora, Platyhelminthes and Nematelminths including microscopic organisms. Students will also be acquainted with different parasitic organisms, disease causing microbes, mode of infection and remedial measures.
	ZOO-101H Practical	CC-1: Non-chordates I: Protista to Pseudocoelomates	Students will learn about the practical knowledge of microorganisms, parasites, helminths and mode of infection to human and other animals. They will learn about microscopic slides preparation and culture method of microbes.
	ZOO-102H Theory	CC-2: Principles of Ecology	Students will be able to study the habitats of different organisms since the ecology is the science of organisms in their habitat. They will be able to learn different environmental aspects related to organisms and help them to enhance their skill on fields activities.
	ZOO-103H Practical	CC-2: Principles of Ecology	Students will be able to gain confident with practical knowledge on habitats of different organisms by surveying and through field visit. Population density, Shannon-Weiner diversity index, community studies, aquatic ecosystem,

			Phytoplankton, Zooplankton, P ^H , DO, free CO ₂ , turbidity etc. will be applicable for higher studies and research-oriented activities.
B SC 2 ND SEMESTER HONOURS	ZOO-201H Theory	CC-3: Non-chordates II: Coelomates	Students will be able to understand about invertebrates and acquired the knowledge on Annelida, Arthropoda, Onychophorans, Mollusca and Echinodermata. Students will also learn about different coelomates and evolution of coelom.
	ZOO-201H Practical	CC-3: Non-chordates II: Coelomates	Students will be able to understand practical knowledge of invertebrates and acquired the knowledge of museum specimens of invertebrate animals and will enhance skill.
	ZOO-202H Theory	CC-4: Cell Biology	Students will learn about basic knowledge of prokaryotic and Eukaryotic cells, virus, viroid, mycoplasma, prions, various models and structure of plasma membrane, endomembrane, nucleus, mitochondria and peroxisomes, cytoskeleton, cell division, cell signaling which help in higher studies.
	ZOO-202H Practical	CC-4: Cell Biology	Students will learn about microscopic slide preparation to observe various stages of mitosis and meiosis cell division, Barr body in human female body, permanent slide preparation procedure for DNA, RNA, Protein, Mucopolysaccharides by using chemicals which enhance the depth studies.
B SC 3 RD SEMESTER HONOURS	ZOO-301H Theory	CC-5: Diversity of Chordates	Students will learn about chordates animals, Protochordates, origin of Chordates, Agnathan, Pisces, Amphibian, Reptilia, Aves. Mammals and Zoogeography. This will help them to acquire knowledge of animal distribution in different zone of this living earth and geographical pattern. Students will know about zoological realms, theories of plate tectonic and continental drift along with distribution.
	ZOO-301H Practical	CC-5: Diversity of Chordates	Students will learn to classify the museum specimens, basic taxonomy, systematics, behavior, characters, shape, size and their significance which further help to explore diversified animals.
	ZOO-302H Theory	CC-6: Physiology, Controlling and Coordinating Systems	Students will learn about structure and function of different physiological systems. They will able to understand the thorough knowledge of tissues, bone and cartilage, nervous, muscles, reproductive system and endocrine system.
	ZOO-302H Practical	CC-6: Physiology, Controlling and Coordinating Systems	Students will learn microtomy, preparation of temporary mounts of different tissues, permanent slides on tissues having the scope of laboratory knowledge in further.
	ZOO-303H Theory	CC-7: Fundamental of Biochemistry	This paper pertaining the fundamental knowledge of different biomolecules which will help students to learn the physiology of carbohydrates, lipids, proteins, nucleic acid and enzymes. Structure and functions of biomolecules will help in higher

			studies.
	ZOO-303H Practical	CC-7: Fundamental of Biochemistry	Students will learn quantitative tests of functional groups in carbohydrates, proteins lipids, amino acids and action of salivary amylase under optimum conditions. They will learn protein separation by SDS-PAGE and paper chromatography.
B SC 4 TH SEMESTER HONOURS	ZOO-401H Theory	CC-8: Comparative Anatomy of Vertebrates	This paper helps students to gain knowledge on different anatomical systems and their functions of different vertebrate groups. Students will learn about the integumentary system, skeletal, digestive, respiratory, circulatory, urinogenital, nervous and sense organs which strengthen in further studies.
	ZOO-401H Practical	CC-8: Comparative Anatomy of Vertebrates	Students will be able to gain knowledge on fish scales, frog skeleton, mammalian skull through photographs and video display.
	ZOO-402H Theory	CC-9: Physiology: Life Sustaining Systems	Students will be able to learn physiology of different life sustaining systems. They will learn thorough knowledge of digestion, respiration, renal physiology, blood and mammalian heart which will help them in higher studies.
	ZOO-402H Practical	CC-9: Physiology: Life sustaining Systems	Students will able to determine the blood group using antigen and blood cell counting using hemocytometer, recording heartbeat, blood pressure, preparation of haemin and haemochromogen crystal and estimation of haemoglobin using haemoglobinometer.
	ZOO-403H Theory	CC-10: Biochemistry of Metabolic Processes	Students will be able to learn the metabolic processes of human body and biochemistry of carbohydrate, lipid, protein and oxidative phosphorylation which will be manifested research in bioscience and higher studies.
	ZOO-403H Practical	CC-10: Biochemistry of Metabolic Processes	Students will able to study enzymatic activity of trypsin and lipase, detection of SGOT and SGPT or GST and GSH in serum/tissue, protein estimation using Lowry's method that will develop facts.
B SC 5 TH SEMESTER HONOURS	ZOO-501H Theory	CC-11: Molecular Biology	Students will learn about nucleic acids at molecular level, salient features of DNA and RNA, Watson and Crick model of DNA, Replication in prokaryotes and eukaryotes, Transcription and Translation, post transcriptional modifications and processing of eukaryotic RNA, Gene regulation and DNA repair mechanism.
	ZOO-501H Practical	CC-11: Molecular Biology	Students will learn about the Study of Polytene chromosome, Culture medium and raise culture of <i>E. coli</i> , Growth kinetics of <i>E. coli</i> by turbidity method, preparation of solid culture medium and

			growth of <i>E. coli</i> , Antibiotic sensitivity/resistance of <i>E. coli</i> to antibiotic pressure and interpretation, Estimation of salmon sperm/calf thymus DNA using colorimeter, estimation of RNA using Orcinol reaction, interpretation of electron micrographs/photograph showing DNA replication, Transcription and Split genes.
	ZOO-502H Theory	CC-12: Principles of Genetics	Students will learn about the Mendelian Genetics and its Extension, Linkage, Crossing Over and Chromosomal Mapping, Mutations, Sex Determination, Extra-chromosomal Inheritance, Polygenic Inheritance, Recombination in Bacteria and Viruses, Transposable Genetic Elements.
	ZOO-502H Practical	CC-12: Principles of Genetics	Students will learn about the study of Mendelian laws and gene interactions, Chi-square analyses using seeds/beads, Linkage maps based on data from conjugation, transformation and transduction from <i>Drosophila</i> crosses, human karyotype normal and abnormal, Pedigree analysis of some human inherited traits
	ZOO-D1HR Theory	DSE-1: Immunology	Student will learn about the Overview of Immune System, Innate and Adaptive Immunity, Immunoglobulins, Antigens, Antibodies and Major Histocompatibility Complex, Cytokines, Complement System, Hypersensitivity and Vaccines.
	ZOO-D1HR Practical	DSE-1: Immunology	Students will learn about lymphoid organs, histological study of spleen, thymus and lymph nodes through slides/photographs, preparation of stained blood film to study various types of blood cells, Ouchterlony's double immune-diffusion method, ABO blood group determination, Cell counting and viability test from splenocytes of farm bred animals/cell lines, Demonstration of ELISHA, Immunoelectrophoresis.
	ZOO-D2HR Theory	DSE-2: Animal Biotechnology	Students will learn about the concept and scope of animal biotechnology, Molecular Techniques in gene manipulation, Cloning, Genetically Modified Organisms, Culture Techniques and Applications.
	ZOO-D2HR Practical	DSE-2: Animal Biotechnology	Students will learn about Genomic DNA isolation from <i>E. coli</i> , Plasmid DNA isolation from <i>E. coli</i> , Restriction digestion of plasmid DNA, Construction of circular and linear restriction map from the data, Calculation of transformation efficiency from the data, Study of techniques like Southern, Northern and Western Blotting through photographs, DNA Sequencing, fingerprinting, PCR and project report on animal cell culture.
B SC 6 TH SEMESTER HONOURS	ZOO-601H Theory	CC-13: Developmental Biology	Students will learn about the historical perspective and basic concepts: phases of development, Cell-Cell interaction, Pattern formation, Differentiation and growth, Differential gene expression, Cytoplasmic determinants and asymmetric cell division, Early

		Embryonic Development, Late Embryonic Development, Post Embryonic Development, Implications.
ZOO-601H Practical	CC-13: Developmental Biology	Students will learn about the Study of whole mounts and sections of developmental stages of frog through permanent slides, Study of whole mounts of developmental stages of chick through permanent slides, Developmental stages and life cycle of <i>Drosophila</i> from stock culture, Study of different sections of placenta through slides /Photomicrograph, project report on chick embryo development/ <i>Drosophila</i> culture.
ZOO-601H Theory	CC-14: Evolutionary Biology	Students will learn about Chemogeny, RNA world, Biology, Origin of photosynthesis, Evolution of Eukaryotes, Historical review of evolutionary concept: Lamarckism, Darwinism, Neo-Darwinism, Evidences of Evolution: Fossil records, Molecular universality of genetic code and protein synthesis, three domains of life, molecular evolution, molecular clock, globin gene family, Sources of variations, Population genetics: Hardy-Weinberg Law, Natural Selection, Genetic Drift mechanism, Product of Evolution: Microevolutionary changes, Species concept, Speciation, Isolating mechanisms, Adaptive radiation, Extinctions, K-T extinction, Origin and Evolution of man, Primate phylogeny, molecular analysis of human origin, phylogenetic trees and its construction.
ZOO-601H Practical	CC-14: Evolutionary Biology	Students will learn about the Study of fossils form models/pictures, homology and analogy from suitable specimens, verification of Hardy0weinberg Law by chi square analysis, natural selection and genetic drift in changing allele frequencies using simulation studies, graphical presentation and interpretation of data of height/weight of a sample of 100 humans in relation to their age and sex, construction of phylogenetic trees width the help of bioinformatics tools (Cluster X, Phylip, NJ) and its interpretation.
ZOO-D3H Theory	DSE-3: Fish and Fisheries	Students will learn about the General description fishes and classification of fishes based on feeding habit, habitat and manner of reproduction, Morphology and physiology of fishes, Inland Fisheries, Marine Fisheries, Environmental factors influencing the seasonal variations in fish catches in the Arabian Sea and the Bay of Bengal, Fishing crafts and gears, Depletion of fisheries resources, Application of remote sensing and GIS in fisheries, Fisheries law and regulations, Sustainable Aquaculture, Extensive and Intensive fish culture, Pen and Cage culture, Polyculture, Composite fish culture, Brood stock management,

			Induced breeding, Finfish hatcheries, Fish Aquarium, compound diets for fish, Fish diseases, Role of water quality in aquaculture, Preservation and processing of harvested fish, Fishery by-products, Fish in research, Transgenic fish, Zebrafish as model organism in research.
	ZOO-D3H Practical	DSE-3: Fish and Fisheries	Students will learn the morphometric and meristic characters of fishes, Study of <i>Petromyzon</i> , <i>Myxine</i> , <i>Pristis</i> , <i>Chimaera</i> , <i>Exocoetus</i> , <i>Hippocampus</i> , <i>Gambusia</i> , <i>Labeo</i> , <i>Heteropneustes</i> and <i>Anabas</i> , Study of different types of scales through permanent slide/photographs, Study of crafts and gears used in fisheries, Water quality criteria for Aquaculture, induced breeding, Study of air breathing organs in <i>Channa</i> , <i>Heteropneustes</i> , parental care in fishes, Project on fish farm, pisciculture, and Zebrafish rearing.
	ZOO-D4H Theory	DSE-4: Endocrinology	Students will learn about the history of endocrinology, classification, characteristic and transport of hormones, neurosecretions and neurohormones, peripheral endocrine glands, regulation of hormone action, epiphysis, hypothalamo-hypophysial axis.
	ZOO-D4H Practical	DSE-4: Endocrinology	Students will learn to study of permanent slides of different endocrine glands, dissect and display of endocrine glands, compensatory ovarian/adrenal hypertrophy, in vivo bioassay, demonstration of castration/ovariectomy, estimation of plasma level of any hormone using ELISA, designing of primers of any hormone.

COURSE: REGULAR/GENERIC ELECTIVE (GE)

SEMESTER	PAPER	COURSE	COURSE OUTCOME
B SC 1ST SEMESTER	ZOO-101R Theory & Practical	DSC-1A: Animal Diversity	General students will be acquired knowledge with animals of invertebrates and vertebrates thoroughly. They will be acquainted the knowledge of phylum Porifera, Cnidaria, Platyhelminthes, Nematelminths, Annelida, Arthropoda, Mollusca, Echinodermata, Protochordates, Agnathan, Pisces, Amphibia, Reptiles, Aves, and Mammals. In laboratory they will learn study of museum specimens, permanent slides, identification of poisonous and non-poisonous snakes.
	ZOO-103HR Theory & Practical	GE-1: Animal Diversity	
B SC 2ND SEMESTER	ZOO-201R Theory & Practical	DSC-1B: Comparative Anatomy and Development Biology of Vertebrates	Students will be able to gain knowledge of different anatomical systems and their functions of different vertebrates' groups. They will learn about Integumentary system, Skeletal system, Digestive system, Respiratory system,

	ZOO-203HR Theory & Practical	GE-2: Comparative Anatomy and Development Biology of Vertebrates	Circulatory system, Urinogenital system, Nervous system, Sense organs, early embryonic development, late embryonic development, and Control of development. In laboratory, students will learn osteology, developmental stages of frog embryo, different types of placentas, permanent slides of sperms and ova which will help in research and higher studies.
B SC 3RD SEMESTER	ZOO-301R Theory & Practical	DSC-1C: Human Physiology	Students will be able to learn about different physiological systems with their functions in human being. They will gain knowledge on digestion and absorption of food, functioning of excitable tissue, respiratory physiology, renal physiology, cardiovascular physiology, endocrine and reproductive physiology which will enhance the basic idea of subject. In laboratory, students will learn preparation of temporary mounts of neurons and blood film, hemoglobin estimation, haemin and haemochromogen crystals, permanent histological sections of mammalian oesophagus, stomach, duodenum, rectum, lung, kidney, pancreas, adrenal, testis and ovaries which will help to gain confident.
	ZOO-305H Theory & Practical	GE-3: Human Physiology	
B SC 4TH SEMESTER	ZOO-401R Theory & Practical	DSC-1D: Genetics and Evolutionary Biology	Students will learn about genetics and evolutionary biology in details. They will learn basic genetics, Mendalian genetics and its extension, linkage, crossing over, and chromosomal mapping, mutations, sex determination, history of life, introduction to evolutionary theories, direct evidences of evolution, process of evolutionary change, species concept, macroevolution and extinction. In laboratory, they will learn gene interactions using suitable examples and verify the results using Chi-square test, linkage, recombination, gene mapping using data, human karyotypes, fossil evidences from plaster cast models and pictures, homology and analogy from suitable specimens and pictures, charts preparation of phylogeny of horse with diagram and Darwin's Finches with diagrams.
	ZOO-405H Theory & Practical	GE-4: Genetics and Evolutionary Biology	
B Sc 5th SEMESTER	ZOO-D1HR Theory	DSE-1: Immunology	Students will learn about the overview of the Immune System, Cells and Organs of the Immune System, Antigens, Antibodies, Working of the immune system, Immune System in health and disease and Vaccines.
	ZOO-D1HR Practical	DSE-1A: Immunology	In laboratory students will learn about demonstration of lymphoid organs, histological study of spleen, thymus and lymph nodes through slides/photographs, preparation of stained blood film to study various types of blood cells, Ouchterlony's double immune-diffusion method, ABO blood group determination, Cell counting and viability test from splenocytes of farm bred animals/cell lines.

B Sc 6th SEMESTER	ZOO-D2HR Theory	DSE-1B Animal Biotechnology	Students will learn about the concept and scope of animal biotechnology, Molecular Techniques in gene manipulation, Cloning, Genetically Modified Organisms, Culture Techniques and Applications.
	ZOO-D2HR Practical	DSE-1B Animal Biotechnology	Students will learn about Genomic DNA isolation from <i>E. coli</i> , Plasmid DNA isolation from <i>E. coli</i> , Restriction digestion of plasmid DNA, Construction of circular and linear restriction map from the data, Calculation of transformation efficiency from the data, Study of techniques like Southern, Northern and Western Blotting through photographs, DNA Sequencing, fingerprinting, PCR and project report on animal cell culture.

COURSE: SKILL ENHANCEMENT COURSE

SEMESTER	PAPER	COURSE	COURSE OUTCOME
B SC 3RD SEMESTER	ZOO-304HR	AEC: SEC-1: Sericulture	The course will enable the students to familiar and experience with various skill like mulberry and non-mulberry sericulture including their life cycles, biology of silkworms, rearing method of silkworm, pests and diseases, entrepreneurship in sericulture which will enhance sustainable employments in this field. The silk production and its byproducts will provide employment generation and scope to earn the livelihood in large scale now a days as the cost of silk clothes as high in global market.
B SC 4TH SEMESTER	ZOO-404HR	AEC: SEC-2: Aquarium Fish Keeping	The course will enable to enhance enough skill in maintaining aquarium fish keeping and thus will offer self-employment. Students will get opportunities to become entrepreneurship by maintaining aquarium fish keeping. The biology of aquarium fishes, food and feeding of aquarium fishes, maintenance of aquarium is the scientific method of ornamental fish culture which will provide industrial knowledge in large scale production and thus sustain the livelihood.
B SC 5TH SEMESTER	ZOO-504HR	AEC: SEC-3: Medical Diagnostics	Students will learn about Medical Diagnostics and its importance, Diagnostics Methods used for Analysis of Blood, Diagnostic Methods used for Urine analysis, Non-infectious diseases, Infectious diseases, Tumors: Types (Benign /Malignant), Detection and metastasis, medical imaging: X-Ray of Bone fracture, PET, MRI and CT scan using photographs.

B SC 6 TH SEMESTER	ZOO-604HR	AEC: SEC-4: Apiculture	Students will learn about the Biology of Bees, history, classification, social organization of Bee Colony, Rearing of Bees, Artificial Bee rearing (Apiary), Beehives-Newton and Lang troth, Bee Pasturage, Selection of Bee species for Apiculture, Bee keeping equipment, Methods of Extraction of Honey (Indigenous and Modern), Diseases and Enemies, Bee Economy, Entrepreneurship in Apiculture.
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