

M.N.COLLEGE VISNAGAR

ENGLISH DEPARTMENT

Programme outcome Programme Specific outcome Course Outcomes

B.A	
Programme outcome	Developing personal, professional and vocational abilities through effective spoken skills as well as other aspects of language. To make them competent by imparting knowledge of English Language and Literature.
Programme Specific outcome	On successful completion of the programme the students will be more proficient in English . They will be able to understand various theories of English Literature. They will be able to evaluate literary texts. It will develop a literary insight into them.

Courses	outcomes
101 CC(Introduction to English Literature)	It introduces the students to the basic concept of literature and its qualities. It will enable them to understand the general idea of literature. It will also introduce them to the beginning period of English Literature. It will give them detail description of the Age of Chaucer.
102 CC(Introduction to Poetry)	It introduces the students to the one of the most interesting literary genre of literature. It enables them to understand the various types of poetry.
201 CC (Introduction to the Age of Shakespeare & Jacobean Age)	It gives them detail information about one of the magnificent ages of English Literature that is Age of Shakespeare. The students derive information about the metaphysical poets and Ben Jonson from it.
202 CC (Introduction to Literary Forms)	It teaches them about the verities of literary genres such as short-story and essay. The students will have an opportunity to read different stories and essays of authors.
303 CC (British Fiction)	It gives them a chance to read different texts of British fiction. It also introduces them to a new literary genre called Novel.
304 CC (Literature in English- Drama & Comedy)	It introduces them to dramas as well as theory of laughter. It enables them to understand the concept of above literary genres in detail.
305 CC (Foundation course in Literary Criticism)	It introduces them to the basic concept of literary criticism and also teaches them theories of ancient critics such as Plato and Aristotle. It also gives them ideas about verities of literary terms related to criticism.
403 CC (Indo-Anglican Fiction)	It gives detail introduction about the Indo-English fiction.
404 CC (Literature in English- Drama & Tragedy)	It enables them to understand the concept of tragedy. It also introduces them to Shakespearean tragedy.
405 CC (Literary Criticism & Rhetoric)	It enables the students to appreciate poetry.
506 CC (Social History of England & America)	It introduce them to the social history of England and America.
507 CC (Introduction to	It enables them to understand the age of restoration age and most influential

Restoration Age & Age of Pope)	author of English Alexander Pope.
508 CC (Indian Writing in English (Poetry-Drama)	It introduces them to Indian poetry and drama.
509 CC (Introduction to American	It gives them detailed introduction about American authors and their literary texts. It helps them to develop a new literary insight.
510 CC (History of English Language)	It enables them to learn the origin and development of English Language.
606 CC (Introduction to Romantic & Victorian Age)	It gives them depiction of one of the most influential periods in the history of English Literature. It also introduces them to the culture and trends of England during 17 th and 18 th centuries.
607 CC (Introduction to Modern Age)	It introduces them to the 20 th century English Literature. It also teaches them to 20 th century literary genres.
608 CC (Indian Literature in English Translation)	It enables them to learn Indian literary texts in English. It gives them an opportunity to learn various texts in English translation.
609 CC (Literary Criticism & Theories)	It introduces them to the various literary movement, critics and trends. It enables them to evaluate literary texts.
610 CC (Spoken English)	It introduced them to the spoken aspect of English language. It helps them to make clear pronunciation.

Sanskrit Department	
Programme Outcome	<ul style="list-style-type: none"> The Department of Sanskrit intends to preserve further and disseminate the various aspects and forms of ancient Indian knowledge traditions in modern perspectives and aspirations. The program aims at equipping and enabling future respective of different knowledge domains, like Vedas, Grammar, Poetics, Inscriptions etc. To empower the students with modern and scientific tools and Inter-disciplinary approach and to design such modules to help them in becoming good citizen, are other important aims of this course.
Programme Specific Outcome	<ul style="list-style-type: none"> A Sanskrit is to highlight the salient feature of Indian culture heritage preserved in Sanskrit texts. An increased ability to read and understand Sanskrit texts. An increased knowledge and understanding of Sanskrit Grammar. A basic familiarity of the history of Sanskrit literature. A basic familiarity of Sanskrit culture and religious background. The passages to be read, translated, interpreted and discussed in class are taken.
B.A. Course Outcomes :	
FE – 101 & 201	The General Paper of the syllabus is classical language and to Teach him about legend of kavi Bhasa's life. The students would know about life of kavi Bhas and

Comp.Sansk	Structure of Sanskrit Drama.
CC & CE – 101& 201	The first paper of the syllabus is Indian Epic ‘Mahabharat’s’ one Part like ‘Sabhaparva’ and to teach the student’s Events of Gambling And Draupadi Chiraharan. The students would know about Sanskrit Indian Epic And General Grammar.
CC & CE – 102 & 202	The second paper of the syllabus is Sanskrit prose. We are Teach the student’s the Mitragupta’s Story and General Grammar. The Students would know about Sanskrit Prose Story Structure, The Greatness of Sanskrit History and literature with Sanskrit Sandhi and General Grammar
EO- 105 & 205	The second subsidiary Paper of the syllabus is Sanskrit Drama like Kavi Shudraka’s ‘Mruchchhakatikam’ and kavi Bhartruhari’s Poet ‘Nitishataksm’ to Teach him about legend of Kavi Shudraka’s and kavi Bhartruhari’s life. The students would know about life of Kavi Shudraka’s and kavi Bhartruhari’s life and Structure of Sanskrit Drama and Poet with Policy of Transaction.
CC & CE – 303 & 403	The third paper of syllabus is Kavikalidas’s Epic like a ‘Raghuvansham Sarg-14’ and ‘Mitrabhedam’ of Panchatantra’s. The students know about the Structure of classical Epic and life of kavikalidas’s legends. And learning with the Policy Transaction and ethical and moral values thought some selected stories and fables from Panchatantra.(Mitrabhedam)
CC & CE – 304 & 404	The fourth paper of the syllabus is alanakar Shastra’s and students know the figure of speech, the definitions of poetry, the Feature of Poetry, the type of poetry, the purpose of poetry etc.
CC 305 & 405	The fifth paper of syllabus is Vedic literature in this paper students know the glories history of ancient culture, chant and Vedic anthem of Gods.
CC 506 & 606	The sixth Paper of Syllabus is Sanskrit Grammar with Sangya-Karakaprakaram and science of language. Students know the basic rules of grammar
CC 507 & 607	The Seventh paper of Syllabus is Vedantsar and Sankhyakarika. Students would know about basic of Indian philosophy and theory of Origination Nature.
CC 508 & 608	The Seventh paper of Syllabus is Tarksangrah and Yangyavalkyamruti. Students would know about basic of Indian philosophy and Cultural Value.
CC 509 & 609	The ninth paper is syllabus is Shrimad Bhagavadgita and students will be exposed to Bhagavadgita’s concept of the divine and demoniac nature.
CC 510 & 610	The tenth paper is syllabus Sanskrit Essay and student would know the art of nature thought and Essay writing

Department of Hindi	
Programme Outcome	<ul style="list-style-type: none"> The Department of Hindi Graduate program intends to preserve further and disseminate the various aspects and forms of ancient Hindi Literature in modern perspectives and aspirations. The program aims at equipping and enabling future respective of different knowledge domains, like Middle Age Poetry and Modern Literature etc. To empower the students with modern and scientific

	tools and Inter-disciplinary approach and to design such modules to help them in becoming good citizen, are other important aims of this course.
Programme Specific Outcome	<ul style="list-style-type: none"> • The Student should be able to demonstrate : • Students can work anywhere in India, as they know Hindi - Our National Language. In many other countries also, Hindi is used as an Official Language as well as second Language. So they can easily be employed easily in those countries also. • An increased knowledge and understanding of Hindi Grammar. • A basic familiarity of the history of Hindi literature. • The passages to be read, translated, interpreted and discussed in class are taken. • As they are Practicing Translation from Hindi to Gujarati and Gujarati to Hindi and some other Languages as well, they can become Translators in many Central Govt. Offices.
B.A. Course Outcomes :	
CC & CE – 101& 201	The first paper of the syllabus is Modern Hindi Poetry one Part like ‘Adhunik Hindi Kavya’ and to teach the student’s Events of Freedom Fight. The students would know about Hindi Poetry and General Hindi Grammar.
CC & CE – 102& 202	The second paper of the syllabus is Hindi Katha Sahitya. We are Teachthe student’s thePremchand and Other Author’s Story, Noveland General Grammar.The Students would know about Hindi Prose Story Structure, The Greatness of Hindi literatureHistory.
EO- 105& 205	The second subsidiary Paper of the syllabus is Hindi Short Story like ‘UsneKahaTha’ and Other Storiesto Teach himabout Values of Life. The students would know about life of Deference Authors and Structure of Hindi Short Story.
CC & CE – 303 & 403	The third paper of syllabus is Middle Age Hindi Poetry. The students know about the Structure of Doha, Pad, Chopai, Savaiya and life of Kabir, Mira, Surdas, TulsidasAnd learning with the Policy Transaction andethical and moral values thought some selected Poetries.
CC & CE – 304 & 404	The fourth paper of the syllabus is ‘Hindi NatyaSahitya’ and students know the form of One Act Play and Drama.By Reading and observing Drama's and one act plays they can become good actors.
CC 305 & 405	The fifth paper of syllabus is History of Hindi literature. In this paper students know the glories history of Hindi Litureture like Adikal, Madhyakal, Adhunikkal.
CC 506 & 606	The sixth Paper of Syllabus is History of Modern Hindi literature.They are learning History of Poetry and Prose -so they can become creative writers or poets are authors.
CC 507 & 607	The Seventh paper of Syllabus is Principle of Literature. While Studying this Paper, the Student is familiar with Indian and Western Literature Theories and He gets a sight to understand the Literature.

CC 508 & 608	The Eighth paper of Syllabus is Hindi Essay and 'PrayogvadiKavita'. This Paper gives an understanding of essay and satire to the student and introduces the nature of Experimental Hindi Poetry.
CC 509 & 609	The ninth paper syllabus is Hindi Grammar and Language. The Students Teach Hindi Grammar That, in the Future, can work as a LanguageExpert and know the basic rules of grammar.
CC 510 & 610	The tenth paper syllabus is Functional Hindi. This paper has been Filed to give Students the benefit of employment. Studying this paper, the student can become a good Journalist and a good Translator.

Department of Gujarati	
Programme Outcome	<ul style="list-style-type: none"> The Department of Gujarati Graduate program intends to preserve further and disseminate the various aspects and forms of ancient Gujarati Literature in modern perspectives and aspirations. The program aims at equipping and enabling future respective of different knowledge domains, like Middle Age Poetry and Modern Literatureetc. To empower the students with modern and scientific tools and Inter-disciplinary approach and to design such modules to help them in becoming good citizen, are other important aims of this course. This is the curriculum that can be developed in today's students by literary words.
Programme Specific Outcome	<ul style="list-style-type: none"> The Student should be able to demonstrate : Able to interpret literary terms. Becomes good orator. Develops creativity in writing skill. Able to give words to their imagination and create literature. An increased knowledge and understanding of Gujarati Grammar. A basic familiarity of the history of Gujarati literature. Student will be equipped for competitive exams. Students become creative and artistic. Graduals of mother tongue increase among students.
B.A. Course Outcomes :	
CC & CE – 101& 201	(Padya Kruti no Abhyas; Madyakalin)It introduces the students to the medieval Gujarati Literature.It broadens their vision of Society and Life.(Padya Kruti no Abhyas; Arvachin) It helps the students to get information about modern Gujarati Poetry Forms. It enables them to evaluate poetry from aesthetic point of view.
CC & CE – 102& 202	The second paper of the syllabus is Gujarati Katha Sahitya. We are Teach the student's the Ramchandra Patel Story and Jayant Gadit Novel and General Grammar. The Students would know about Gujarati Prose Story Structure, The Greatness of Gujarati literature History.
EO- 105& 205	(Sahitya kruti no Abhyas Mansaina diva)It enables them to be social. It also helps them to get command over Gujarati language. It also teaches them

	moral Values. (Sahitya kruti no Abhyas -Jobanvan)It helps them to get ideas about social problem. It also gives them description about Women's feelings.
CC & CE – 303 & 403	(Gujarati Sahitya Swaroop no Abhyas: Madyakalin Pad Sahitya Swaroop) It helps the students to be spiritual. It also gives them depiction of medieval Gujarati Literature. (Gujarati Sahitya Swaroop no Abhyas; Aravachin; Nibandh) It helps them to develop a new vision towards nature so that they can look at life with positive angle. It also helps them to develop a literary vision.
CC & CE – 304 & 404	The fourth paper of the curriculum is studying the works of Narmad and Pannalal Patel, which is 'Study of Granthaar'. He knows about the poem and novel form. Through the novel, the moral values are matched by social problems and the sensitization of poetry.
CC 305 & 405	The fifth paper of syllabus is History of Gujarati literature. In this paper students know the glories history of Gujarati Litureture like Madhyakal.
CC 506 & 606	(Gujarati Sahitya no Abhyas; Aravachin1-2) It gives them depiction of various authors and literary genres of Gujarati Literature which help them to develop literary point of view.
CC 507 & 607	The Seventh paper syllabus is Gujarati Grammar and Language. The Students Teach Gujarati Grammar That, in the Future, can work as a Language Expert and know the basic rules of grammar.
CC 508 & 608	(Sahityasiddhant Vichar 1-2) It introduces them to the principles of Literature which enables them to be creative. It also moulds them towards creative writing.
CC 509 & 609	(Sahityakruti no Abhyas; Padya) It introduces them to the modern poetry of Gujarati Literature. It evokes love for nature in them. It also teaches them family as well as cultural values. (Sahityakruti no Abhyas- Gadya) It enables them to be rich in language proficiency. It also introduces them to rural cultural.
CC 510 & 610	The tenth paper is the curriculum transaction language. This paper has been included to provide employment benefits to the students. This paper can become a good journalist and good speaker by the student.
M.A. Course Outcomes :	
CC 101 & 201	The first paper of the syllabus is in the literature and film production of Pannalal Patel, which is in Pineapple literature and Cine and 'Study of Granthaar'. He knows about the relation and the nature of cinema and literature. They also study medieval literature.
CC 102 & 202	The second paper of the syllabus is the study of quintessential work and the Indian literature. In which he studied ancient literature. As well as understanding the rich tradition of critique of Indian literature and its theories, which include interest, sound, ethereal irony etc.
CC 103 & 203	The third paper of the syllabus is a study of forms of medieval and early Gujarati literature. He knows the biographies, the novels, the sonnet etc. and one of his works.
CC	The fourth paper of the curriculum is about the acquisition of folklore and the

104 & 204	acquisition of folklore. He knows about folklore, folklore, proverb. And also researches in folk literature researchers. By which, they are revered in research and public opinion.
CC 105 & 205	The fifth paper of the syllabus is Gandhiji and dialogue. Students who know Gandhi's autobiography know about the experiments of truth. Gandhi knows about the idea. Similarly, this paper has been included in the dialogue to provide employment benefits to the students. This paper can become a good journalist and good speaker by the student.
CC 301 & 401	The first paper of the syllabus is the study of 'Grantharkar - Arvachin' and the tradition of Gujarati critics. It teaches the work of Umashankar Joshi. He knows about the form of poetry in it. The values of poetry are matched by their sensibilities. Gujarati knows about critique in the tradition of criticism.
CC 302 & 402	The second paper of the curriculum is Western literature and language literature skill. Western literature knows the rich tradition of critique and its theories, which include tragedy, generosity, three surreals of poetry, etc. The paper syllabus is Gujarati Grammar and Language. The Students Teach Gujarati Grammar That, in the Future, can work as a Language Expert and know the basic rules of grammar.
CC 303 & 403	The third paper of the syllabus is unreadable. This paper has been included to provide employment benefits to the students. This paper can become a good journalist and good speaker by the student. The paper syllabus is Gujarati Grammar and Language. The Students Teach Gujarati Grammar That, in the Future, can work as a Language Expert and know the basic rules of grammar.
CC 304 & 404	The masterpiece of the fourth paper of the syllabus is the artistic study - the sonnet. He knows about his nature. There is a translation paper as well. Through which art translates into art of translation.
CC 305 & 405	The fifth paper of the syllabus is of Indian literature and world literature. Through this, both of them know the literature of literature. As well as its literature is introduced.

M.N.COLLEGE VISNAGAR

ECONOMICS DEPARTMENT

Programme outcome Programme Specific outcome Course Outcomes

B.A	
Programme outcome	Developing personal, professional and vocational abilities through effective business developing skills, ensuring high standard of attitude by giving knowledge and making students strong to compete in this competitive world.
Programme	On successful completion of the programme the students will be more

Specific outcome	accurate in taking decisions in financial issues. They can understand the role of Reserve bank of India and other global financial institutions in different Economical situation. The student will be familiar with taxation system of india and its effects on Economy.
-------------------------	---

Course Outcomes	
Courses	Outcomes
101(CC/CE) (MicroEconomics -1)	The Objectives of this paper is to introduce the basic concepts of economics to the students so as to able them for further learning in economics. The students acquire knowledge about demand and supply,utility analysis and elasticity of demand
102(CC/CE) (Money &Banking)	The main objective of this paper is to introduce the students to basic understanding of macro economics and public finance. The students gets information of Inflation and commercial Banking.
105(E0) (ElementaryEconomics)	The objective of this paper is to introduce the student to basic understandingof elementary economics.The students acquire information of value and price,functions of money and division of labour.
201(CC/CE) (MicroEconomics-2)	To gain knowledge about Theory of Production,Market structure and factor pricing. to introduce the basic concepts of Rent,Interest wages and real wages and Economics Welfare.
202(CC/CE) (Banking&Public Economics)	The students get knowledge of Commercial Banking,Central Banking and Public Economics.To aware the students about recent reforms in banking sector in India and functions of co-operative Banks.
205(E0) (ElementaryEconomics)	To gain information about Banking,Reserve Bank of India and Environmental economics. To know about causes and effects of poverty and population on economy.
303(CC/CE) (MicroEconomics Part-2)	To gain knowledge about price mechanism, Theory of demand, and Theory of cost and revenue The main objective of the paper is to analyze the economics behaviour of individual, firm and market.
304(CC/CE) (Indian Economy part-1)	To make the students familiar with The main problems and characteristic of different sectors of Indian economics. The students acquire information of population of poverty and unemployment To know about National Resources in India
305(CC) (Economics system part-1)	To make the students familiar with the basic philosophy and objects of different economic system. The course also aims to introduce the merit and demerits of different economic systems.
403(CC/CE) (MicroEconomics Part-2)	To introduce students to perfect competition and monopolistic competition. The students get knowledge of distribution of national Income and welfare economics.
404(CC/CE)	The students acquire Information about planning,agriculture and

(Indian Economy part-2)	Industrial sector. To know the role of private sector, public sector and co-operative sector in the development of industrial and tertiary sector.
405(CC) (Economics system part-1)	To gain Information about capitalism, socialism and nationalisation policy. To know about analysis of capitalism by Karl Marx's crisis of capitalism illustrated by Karl Marx.
506(Macro Economics Part-1)	To gain knowledge about various concepts of national income measurement & limitation. The students acquire information about the different economists like J.B. Say, Fisher, Cambridge and Milton Friedman and their principles.
507(International Economics)	This course provides the students a thorough understanding and deep knowledge about basic principles that tend to govern the free flow of trade in goods and services at the global level. The students would also be well trained about the rationale of recent changes in the export-import policies of India.
508(Public Economics)	To aware the students with fundamentals of fiscal policy, fiscal federalism and public Economics. The students acquire knowledge of public finance, public goods v/s private goods and limitations of fiscal policy.
509(B) (Economics of developing countries)	To know meaning of under development and developing economy unemployment, population and poverty. The student get knowledge about characteristics of under developed economy, concept of poverty and changes in agriculture.
510(Co-Operation)	The main objective of this paper is to introduce students about principles of co-operation, types of co-operative societies and origin and development of co-operation.
606(Macro Economics Part-2)	To aware the students to rate of interest, trade cycles, supply of money and value of money. To know theory of Keynes and Hawtrey.
607(International Economics-2)	The students acquire knowledge of foreign exchange rate balance of trade, foreign trade in India and International Institutions. To know Export Import policies in India and contribution of SEZ in India.
608(Advance Public Finance)	To gain Information about sources of public revenue public expenditure and public debt. The students get detail information of taxation.
609 (Economics of developing countries)	To introduce the students to monetary and fiscal policies, foreign trade and development and International monetary system. The students know the role of privatization, liberalization and globalization in developing countries.
610(Banking)	The student acquire knowledge about Indian Banking system. To know the role of RBI in Indian Economy. The students gain information about the main features of policy since 1991 monetary.

Department of Political Science
M. N. College, Visnagar
Course Outcome Details

Program Outcomes	Students are equipped with this program to face public service examinations. They get comprehensive knowledge of the Indian state, like the Union government, the state government and the local self government, the public administration, the political theories and ideologies are educated. With this program, they are ready for further study of post graduate and law.
Program Special Outcomes	Students are equipped with this program to face public service examinations. They get comprehensive knowledge of the Indian state, like the Union government, the state government and the local self government, the public administration, the political theories and ideologies are educated. With this program, they are ready for further study of post graduate and law. We also offer optional papers for second and third year students.
Introduction to Political Science-I	To Provide basic knowledge about the Political Science, Principles & State, Nation, Society etc to the Students.
Introduction to Governmental Machinery-1	To Familiarize the Students with the basic idea of Constitution, it types and the features of ideal constitution. To enable the Students how to classify the constitutions. To Provide basic concept of Knowledge about the separation of power. To Familiarize the Students with the legislature, it's meaning, its types and functions. The students can understand the process of law making. Students can understand meaning of executive, functioning and types. To Familiarize the Students with the characteristics of parliamentary executive and its merits and demerits. To Familiarize the Students with the characteristics of presidential executive and its merits and demerits. To Familiarize the Students with the judiciary and its functions. To enable the Students to know concept of 'Rule of law' and independence of judiciary. To enable the Students to know concept of judicial review and judicial activism.
E.O.- POL - 105 Basic Concepts of Political Science - I	This Course introduces the discipline of Political Science and enables the students to gain an insight into its nature and scope. It also seeks to provide an understanding of the basic features of the State as the primary frame of reference for the discipline. Besides, the course initiates the learners into key political concepts relevant to citizenship and the working of the state. It also introduces the concept of Sovereignty - it's meaning, characteristics, types and importance. Finally, the concept of Equality - it's

	meaning and types are also discussed.
Introduction to Political Science-II	To teach the basic concepts and real values of life Liberty, Equality, Fraternity, Morality & Rights to the Students.
Introduction to Governmental Machinery-2	To Familiarize the Students with the basic idea of Unitary and federal government. To Provide basic concept of Knowledge about the Democracy and dictatorship. The students can understand local self government and its functions.. To Familiarize the Students with the international organisation United Nations and its achievement.
E.O. - POL - 205 Basic Concepts of Political Science - II	Building further on the knowledge acquired in Paper-I, this course aims to provide an understanding of basic principles / concepts such as Power, Authority, Law, Liberty and Justice. The first unit deals with the concept of power, various approaches to political power, meaning of authority as well as relationship between power and authority. The second unit introduces the concept of Liberty - it's definition, types and safeguards of liberty. The third unit focuses on Law - it's definition and types, Rule of Law and the relationship between Law and Customs, Law and Policy. The last unit deals with Justice - it's meaning, various dimensions of Justice as well as Justice and Equality.
Indian Polity- I & II	To Familiarize the Students with Constitution of India, The Preamble of the Constitution, The basic Elements of Indian Constitution, The Center state Relations & Political Parties in India.
Introduction to World Revolutions- I & II	To Provide basic concept of Knowledge about the Revolution, Terminology of Revolution Aims & objective of Revolution problems of Revolutions & The causes & Results of world. Major Revolutions like U.K, England, France, U.S.A. & Russia.
C.E. - POL - 303 Indian Polity - I	This paper offers an introduction to Indian Constitution and Government. It begins with tracing a brief process of the making of Indian Constitution and examines the salient features and Preamble of the Indian Constitution. The paper then focuses on the Fundamental Rights, the Directive Principles of State Policy and the Constitutional Amendment Process. The third unit deals with the structure of the Union Government : the Parliament, the Executive and the Supreme Court of India. Finally, the structure of the State Government : the Legislature, the Executive and the High Court will be systematically examined in this course.
C.E. - POL - 403 Indian Polity - II	The main concern and thrust of this paper is to familiarize the students with the actual working of the Indian Government. It, therefore, seeks to introduce the students with political institutions, issues as well as political processes. The first unit discusses the Centre - State relations with regard to legislative, executive and financial matters. The second unit deals with

	<p>some important Constitutional functionaries such as Election Commission, Finance Commission, Attorney General and the C.A.G. This paper then focuses on some select political parties - both national and regional. Finally, it emphasizes some dynamics and influences on political processes that emanate from social stratification of caste, religion, language and region. Hence, the issues of Regionalism, Separatism, Religion & Caste, Naxalism and Terrorism are also discussed in this paper.</p>
<p>C.C. - POL - 304 (A) Basic Principles of Democracy</p>	<p>With all its limitations and shortcomings, 'Democracy' is perhaps the most desirable, if not the best, form of government across the globe today. This course intends to provide basic orientation to the students about the fundamental principles and concepts of 'Democracy'. The course initiates the students into the world of 'Democracy' by explaining its meaning, definition, values, types, etc. The course then provides basic explanation about Democracy as a 'Form of Government' as well as a 'Way of Life'. It also discusses various aspects of democracy such as Economic, Industrial, Social and Political Democracy. Finally, the course introduces basic concepts related with Democracy such as the concept of Majority Rule and Tyranny of Majority, Will as the basis of Political Power, the concept of Tolerance, the concept of Rule of Law, etc.</p>
<p>C.C. - POL - 404 (A) Democratic Government : Theory_and Practice</p>	<p>Moving forward from the knowledge acquired in the Course titled : " Basic Principles of Democracy", this course intends to provide deep insight to some more theoretical as well as functional dimensions of democracy. It begins with the relationship, both theoretical and practical, between two major organs of government, namely, the Legislature and the Executive in the Parliamentary Democracy as well as Presidential Democracy. It also discusses the significance of Judiciary and the concept of Independence of Judiciary. The course then provides basic explanation about the meaning, importance and types of electoral systems. It also deals with the meaning, types, functions, merits and demerits of political parties in the functioning of democracy. The course also introduces the students to the importance and safeguards of Fundamental Rights in democracy as well as meaning, importance and means / tools of public opinion. The pre-requisites of the success of democracy as well as the merits and demerits of democracy are also dealt with. Finally, the course briefly introduces the students to the anti-democratic ideologies such as traditional and modern Dictatorship.</p>
<p>C.C. - POL - 506 World Politics - I</p>	<p>The objective of this course is to introduce students to major events and issues in contemporary international politics. It deals with key concepts and dimensions of international relations and makes an analysis of major events and issues in the world politics. It begins with the meaning, nature, scope and importance of the study of world politics. Then it introduces the concept of Balance of Power : its meaning, characteristics, relevance and measures to maintain Balance of Power. The third unit deals with the</p>

	processes of Colonialism and Imperialism : their origin, causes and impacts. Finally, the process of nationalism is examined and analyzed with special reference to the national freedom movements in Asia and Africa.
B.A.Sem.-5 CC-POL-507 Modern Indian Political Thinkers-I	To teach the brief history of modern Indian political thoughts. To Familiarize the Students with the political thought of Gopal Krishna Gokhle. To Familiarize the Students with the political thought of Lokmanya Tilak. To Familiarize the Students with the political thought of Mohandas K. Gandhi.
B.A.Sem.-5 CC-POL-508 Western Political Thinkers-1	To Familiarize the Students with the political thought of Mechiavelli. To Familiarize the Students with the political thought of Thomas Hobbes. To Familiarize the Students with the political thought of John Locke. To Familiarize the Students with the political thought of J.J.Rousseau.
Public Administration-I & II	To enlighten the student's knowledge on The basic of Public Administration Evolution of Public, Administration E-governance Leadership, Process of Decision Making, Budget : Making and Implementation & Judicial Control over Public Administration.
C.C. - POL - 510 (A) Modern Constitutions - I	This paper studies the major constitutions of the world by adopting a comparative approach. The constitutional and legal provisions, the ideological basis, the institutional arrangement and their social and economic background are to be explained, analyzed and evaluated critically. The historical backgrounds to individual constitutions are to be emphasized to gain an understanding of its evolution. The comparative perspective enables the students to understand the differences and similarities between the various constitutional arrangements. Keeping these points in consideration, the first and second units deal with the British Constitution : it's characteristics, the Parliament, the Crown, the Prime Minister and his Cabinet, the Judiciary and the political parties. The third and fourth units deal with the U.S. Constitution : it's characteristics, the Congress, the President, the Supreme Court and the political parties.
C.C. - POL - 606 World Politics - II	The study of this course equips students to critically analyze and evaluate the impact and significance of developments in the arena of contemporary world politics. It exposes the students to two great events during the 20 th century world politics : First and Second World War - their causes and effects. It then deals with the concept of Bi-Polar World : it's meaning, causes of rise, Allies of the Super Powers and the Non-Alignment Movement are critically examined and analyzed. The third unit focuses on the phenomenon called Cold War : it's meaning, causes and phases. It also examines the reasons and effects of the rise of China as a major power in world politics. Finally, the paper deals with the largest and the most

	important international organization - The United Nations : it's composition, organization, major organs and it's attempts for disarmament.
B.A.Sem.-6 Western Political Thinkers-2	To Familiarize the Students with the political thought of Jeremy Bentham. To Familiarize the Students with the political thought of J.S. Mill. To Familiarize the Students with the political thought of Karl Marx. To Familiarize the Students with the political thought of Harold Laski.
Modern Indian Political Thinkers-2	To Familiarize the Students with the political thought of Jawaharlal Nehru. To Familiarize the Students with the political thought of Dr.Ram Manohar Lohia. To Familiarize the Students with the political thought of Dr. B.R. Ambedkar. To Familiarize the Students with the political thought of M.N.Roy.
Public Administration- I & II	To enlighten the student's knowledge on The basic of Public Administration Evolution of Public, Administration E-governance Leadership, Process of Decision Making, Budget : Making and Implementation & Judicial Control over Public Administration.
C.C. - POL - 610 (A) Modern Constitutions - II	In accordance with the previous paper, this paper deals with another three major and distinct constitutions of the world. The first unit is about the Constitution of Switzerland. It is perhaps the only Constitution in contemporary world having significant provisions for the practice of Direct Democracy. It examines and evaluates the characteristics of the Swiss Constitution, the Federal Assembly, the Federal Council and the means of Direct Democracy in Switzerland. The second and the third units deal with the Constitution of the Fifth Republic of France : it's characteristics, the Parliament, the President, the Prime Minister and his Council of Ministers, the Judiciary and the political parties. The last unit deals with the Constitution of the Communist China : it's characteristics, the National People's Congress (the Legislature) and the Communist Party of China.

PROGRAM OUTCOMES, PROGRAM SPECIFIC OUTCOMES, COURSE OUTCOMES

Course outcomes for all Courses:

Department of History

<p>Programme Outcome</p>	<p>Learning outcomes for the history undergraduate programs (BA)</p> <p>Students will be able to demonstrate a breadth of training across historical time and space.</p> <p>Students will be able to develop an in-depth understanding of a field, theme or region.</p> <p>Students will be able to demonstrate an historical awareness of the diversity of the human experience across time and space (research papers).</p> <p>Students will be able to apply, assess and debate the major historical schools of thought, methodology and types of sources that historians use to make original arguments (research papers).</p> <p>Students will be able to formulate historical arguments and communicate those arguments in clear and persuasive prose.</p> <p>Learning outcomes for the history graduate program (MA)</p> <p>Upon graduating with an MA in History, a student will be able to:</p> <p>Demonstrate a breadth of training across historical time and space</p> <p>Develop an in-depth understanding of a field, theme or region</p> <p>Demonstrate an awareness of the diversity of the human experience across time and space</p> <p>Apply, assess and debate the major historical schools of thought, methodology and types of sources that historians use to make original arguments</p> <p>Formulate historical arguments and communicate those arguments in clear and persuasive prose.</p>
<p>Programme Specific Outcome</p>	<ol style="list-style-type: none"> 1. Understand background of our religion, customs institutions, administration and so on. 2. Understand the present existing social, political, religious and Economic conditions of the people. 3. Analyze relationship between the past and the present is lively presented in the History. 4. Develop practical skills helpful in the study and understanding of historical events. 5. Draw Historical maps , charts diagrams etc. 6. Prepare historical models, tools etc. 7. Develop interests in the study of history and activities relating to

	<p>history. They :</p> <p>(a) Collect ancient arts, old coin and other historical materials;</p> <p>(b) Participate in historical drama and historical occasions;</p> <p>(c) Visit places of historical interests, archeological sites, museums and archives.</p> <p>(d) Read historical documents, maps, charts etc.</p> <p>(e) Write articles on historical topics.</p> <p>8. History installs the feeling on patriotism in the hearts of the pupils.</p>
--	---

Department of History	
Course Outcomes	
Courses	Outcomes
B.A.SEM-I & II PAPER-101, 102 &201,202	Obtaining more information about one's culture and tradition; Literary, Archaeological, coins. Development knowledge and Understanding of the nature of History significant changes and Developments from the past, the modern world and Recognizes personal connections to History.
B.A.SEM-III & IV PAPER-303,304,305 &403,404, 405	Demonstrates an Understanding of Time and chronology. Uses a sources to understand the past. Recognizes a variety of Historical sources.
B.A.SEM-V &VI PAPER- 506,507,508,509,510 , & 606,607,608,609,610	Uses a variety of Strategies to locate and Select information for an Historical investigation. Uses Historical terms to describe the past. Investigates the past using historical skills.
M.A.SEM-I & II PAPER-101,102, 103, 104,105 & 201, 202,203,204,205	Selects and uses a variety of Strategies to organize and communicate information about the past. Communicates stories of their own family heritage and heritage of others. Demonstrates developing skills of Historical inquiry and communication
M.A.SEM.-III & IV, PAPER-301,302,303, 304,305 &401,402,403, 404,405	Communicated and understanding of change and continuity in family life using appropriate historical terms. Identifies and describes significant people events, palace and sites in the local community over time. Describes the effects of changing technology on people's lives over time. Demonstrates skills of historical inquiry and communication .

Department of Chemistry

Programme Outcome	Students will demonstrate an understanding of major concepts in all disciplines of chemistry. Students will employ critical thinking and the scientific method to design, carry out, record and analyze the results of chemical experiments and get an awareness of the impact of chemistry on the environment, society, and other cultures outside the scientific community.
Programme Specific Outcome	The ability to explain chemical nomenclature, structure, reactivity, and function in their specific field of chemistry. The design and execution of the experiment should demonstrate an understanding of good laboratory and the proper handling of chemical waste streams and also explain how the applications of Chemistry relates to the real world.
Course Outcomes	
Course	Outcomes
Chemistry Paper-CC CH 101	To enable the students to learn about the chemical bonding, Reaction Mechanism, Electronic effects, Thermodynamics and Analytical Chemistry.
Chemistry Paper-SE CH 101	Students will understand the use, Synthesis, Classification of Fertilizers and insecticides.
Chemistry Practical Paper-LC CH 101	To enable the students to learn about the Semi micro Analysis of Inorganic Salts, Preparation and Standardization of solutions.
Chemistry Paper-CC CH 201	After completing this course, students must have a basic knowledge of coordination compounds, stereochemistry of organic compounds, chemical kinetics, nuclear chemistry and volumetric analysis.
Chemistry Paper-SE CH 201	Enable the student to get understand the history of medicinal chemistry, classification and importance of drugs, drug design and intensive study of anti malarial drugs.
Chemistry Practical Paper-LC CH 201	To enable the students to learn about the identification of Organic compounds, Volumetric titrations and calibration of burette and pipette.
Chemistry Paper-CC CH 301	The students will understand the basics of wave mechanics, acid base properties of organic compounds, phase equilibrium and partial molar properties.
Chemistry Paper-CC CH 302	To enable the students to learn about the chemistry of noble gases, amino acids, peptides, electrophillic aromatic substitution reactions, physical properties and molecular structures with respect to liquids.
Chemistry Paper-SE CH 301A	To enable the students to learn about the classification of pollutants, air pollution, water pollution, soil pollution and prevention of pollution
Chemistry Paper-SE CH 301B	To enable the students to learn about the ceramics, measurement of properties of ceramics, classification, properties and application of refractories

Chemistry Practical Paper-LC CH 301	To enable the students to learn about the conduct metric titrations, pH metric titrations, molar refraction, surface tension, viscosity, solubility, heat of solution and clock reaction.
Chemistry Paper-CC CH 401	The students will understand the basics of CFT, application & limitation of CFT, magnetic properties of coordination compounds, heterocyclic compounds, carbohydrates and ionic equilibrium.
Chemistry Paper-CC CH 402	To enable the students to learn about the Boron hydrides, ultraviolet spectroscopy, electrochemistry.
Chemistry Paper-SE CH 401A	To enable the students to learn about the mechanism and synthetic application of name reactions e.g. Arndt-Eistert reaction, Hofmann rearrangement, aldol condensation, Diels-alder reaction, Dieckmann condensation, clemmensen reduction, Dakin reaction
Chemistry Paper-SE CH 401B	To enable the students to learn about the basics of green chemistry and designing green synthesis.
Chemistry Practical Paper-LC CH 401	To enable the students to learn about the volumetric analysis of Cu, Zn, Ni, estimations of glucose, aniline, phenol and paper chromatography of 1 st and 3 rd group radicals.
Chemistry Paper-CC CH 501	Students will understand the reaction mechanism of coordination compounds, organometallic compounds, principle, types and prevention of corrosion.
Chemistry Paper-CC CH 502	To enable the students to learn about the stereochemistry of cyclohexanes, allenes, oximes, structural determination of carbohydrates, isoprenoids and nucleophilic substitution of saturated carbon.
Chemistry Paper-CC CH 503	To enable the students to learn about the electromotive force, statistical thermodynamics and macromolecules,
Chemistry Paper-CC CH 504	Students will understand the symmetry of molecules, NMR spectroscopy and acid-base titrations.
Chemistry Paper-SE CH 505 A	To enable the students to learn about the dyes, their classification, Synthesis and uses of Congo Red, Eosin, Alizarin, Crystal violet, Indigo, Sefronine –T, Methylene Blue, Ereochrom Black –T, Rhodamine, Rosanilin
Chemistry Paper-SE CH 505 B	To enable the students to learn about the Oils, Fats and Waxes and their analysis,
Chemistry Paper-SE CH 505 C	To enable the students to learn about the paints, varnishes and their difference.

Chemistry Paper-SE CH 505 D	To enable the students to learn about the cosmetics, their analysis, types and their effect on health.
Chemistry Paper-SE CH 505 E	To enable the students to learn about the production and purification of metals, microbial metallurgy, Extraction, Separation and Purification of Al and Ge from its Ore
Chemistry Practical Paper-LC CH 507	To enable the students to learn about the Alloy like 1) Brass alloy ----- Zn (Gravimetric) and Cu (Volumetric (B) Synthesis by Convention Method like 1) Ferrous Sulphate or Green vitriol (FeSO ₄ 7H ₂ O), Qualitative Analysis, conductometry and pH metry.
Chemistry Paper-CC CH 601	To enable the students to learn about the valency, metal carbonyl and bio inorganic chemistry
Chemistry Paper-CC CH 602	To enable the students to learn about the electrophillic and free radical addition reaction, active methylene group compounds and nucleophillic aromatic substitutions.
Chemistry Paper-CC CH 603	Students will understand the concept of thermodynamics, photo chemistry and chemical kinetics.
Chemistry Paper-CC CH 604	Students will understand the concept of Term symbol & spectra of d1-d9 Octahedral complexes, IR spectra & Numericals based on UV, IR and NMR Spectra and Chromatography.
Chemistry Paper-SE CH 605 A	Students will understand the concept of Classification and Nomenclature of polymers, Isomerism of polymers, Chain growth polymerization, Mechanism of free-radical, Cationic and Anionic polymerization, Membrane Osmometry, Viscometry and Light Scattering.
Chemistry Paper-SE CH 605 B	Students will understand the History and Types of Portland Cement, Indian Standard Institute (ISI) Specification of Cement, Manufacturing process of Portland Cement.
Chemistry Paper-SE CH 605 C	To enable the students to learn about the Food Additives, functionalities Assessment, Classification of Food additives, List of Authorized Food Additives, Risk benefit Ratio
Chemistry Paper-SE CH 605 D	To enable the students to learn about the Soap and its manufacture, Recovery of glycerin from spent lye, Principal groups of synthetic detergents, Eco-friendly detergents & Manufacture of shampoos
Chemistry Paper-SE CH 605 E	To enable the students to learn about the Introduction, Definition, and Scope of Forensic Science, Relationship with reference to Crime Investigation, Introduction & Classification of Toxicology, Extraction & Analysis of Poisons.

Chemistry Practical Paper-LC CH 607	To enable the students to learn about the Estimation of functional groups, Synthesis of Organic Compounds, Potentiometric titration, Colourimetry, Kinetics study, validity of freundlich equation
--	--

PHYSICS DEPARTMENT

Programme Outcome	Student learns concepts of physics theoretically some of the concepts are tested through experiments some pure theoretical fundamentals are purely understood through the mathematical framework.
Programme Specific Outcome	Some pure theoretical concepts are studied by the students are indirectly applicable to the recent technology so, indirectly students can keep the pace with current trends in science and technology.

Course Outcomes

courses	Outcomes
CC-PHY-101	Gaining knowledge of general physics with mathematic.
PC-PHY-102	Experimental knowledge of general physics.
CC-PHY-103	Obtaining knowledge of general physics.
PC-PHY-104	Obtaining practical knowledge.
CC-PHY-301	Obtaining knowledge of thermodynamics, optics, solidstate physics and special theory of relativity.
PC-PHY-301	Experimental knowledge of relevant concepts to the theory.
PC-PHY-302	Experimental knowledge of relevant concepts to the theory.
CC-PHY-401	Gaining knowledge of solid-state physics and basic quantum mechanics.
CC-PHY-402	Obtaining clarity of electronics specifically digital electronics and nuclear physics particurly radioactivity and detectors.
PC-PHY-401	Experimental testing of relevant concept.
PC-PHY-402	Obtaing knowledge of vacuum pumps and working of optical instruments like travelling microscope, electrical instrument like galvanometer, multimeter, earphone etc.
ES-PHY-04	Renewable soures of energy are known through this course.
ES-PHY-06	Renewable sources of energy are known through this course.
CC-PHY-501	Get acquainted with mathematical physics much required in classical mechanics, langrangian formulation, motion of rigid body and general formulation of wave mechanics.
CC-PHY-502	Acquiring knowledge of macroscopic and microscopic state statistical ensemble and free electron theory of metal, plasmons, polarons, and characteristics of plasma in magnetic field.

CC-PHY-503	Students acquire concepts of radioactivity focusing on alpha decay paradox, beta emission and gamma ray emission mechanism, fission and elementary particle. Students also obtained knowledge of pure rotational vibrational electronic and things related Raman effect.
CC-PHY-504	Pertaining to topic electronics, network thyristors devices and transistor amplifier. Students get acquainted students also get clear idea about power supply along with programming in C.
PC-PHY-501	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigourously.
PC-PHY-502	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigourously.
PC-PHY-503	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigourously.
PC-PHY-504	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigourously.
CC-PHY-601	Theoretical physics, pertaining to classical mechanics and mathematical physics in understood.
CC-PHY-602	With reference to F.D.B.E. is understood along with solid state physics, holography and fiber optics.
CC-PHY-603	Laplace equation regarding to potential, multiple expansion, faraday's law and core part of electrodynamics Maxwell equation renewable energy sources are clearly understood in this course.
CC-PHY-604	Feedback amplifier, process of modulation along with digital electronics acquainted in this paper. paper also give glimpse of programming in C.
PC-PHY-601	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigourously.
PC-PHY-602	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigourously.
PC-PHY-603	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigourously.
PC-PHY-604	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigourously.
ES-PHY-07	Measuring instrument of optics e.g. Michelson interferometer ,C.R.O. in electronics and G.M. counter in nuclear physics is clearly understood.
ES-PHY-08	Optoelectronics instruments mechanics is given along with electro microscope and F.P. interferometer.
CPH-401	Complex variable, integral transforms are understood with respect to mathematical physics, WKB approximation and evolution with time is understood with quantum mechanics context.
CPH-402	Electron energy bands and construction of Fermi surfaces are clearly given power amplifier, operational amplifier along with multivibrators are explicitly understood through this course.
CPH-403	Windows, power point, Microsoft word, excel and thing related to network

	internet and virus is understood with the help of this paper.
EPH-401	Things related to communication including analogs and digital knowledge is acquired.
PPH-401	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigoursly.
CPH-501	Maxwell equation in matter, potentials (lienard wiechert) radiation and relativity knowledge is obtained microprocess knowledge is also acquired by the student.
CPH-502	Canonical transformation small oscillation and rotating frame understood with reference to classical mechanics. Decision making and looping, cherector arrays and strings are cleared with reference to C-language.
CPH-503	Aspect of nano technology is acquired in this course.
EPH-501	Geothermal energy, wind energy ocean energy technology is required in this course.
PPH-501	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigoursly.
CPH-601	Concepts like ergodic hypotheses liouville theorem are understood with reference to quantum statistics, ideal Bose and Fermi system and transport phenomena knowledge is gained two body problems like Newton – proton scattering is understood. Classification of elementary particles CPY is also known.
CPH-602	Knowledge regarding flip flop counter obtained structures and unions, file management are understood for C –language.
CPH-603	Separation physic-chemical techniques are understood, spectroscopy aspects are understood knowledge of biomechanics and neuro biophysics is also well understood.
EPH-601	Knowledge of signal processing circuits and special purpose amplifier is obtained.
PPH-601	Experimental knowledge related to general physics, electronics is obtained fortifying concepts of physics rigoursly.
CPH-701	Knowledge of tensor analysis, group theory are obtained along with scattering theory, particle wave analysis.
CPH-702	Imperfections, magnetism is understood in solid state physics context. Amplifier FET, tuned voltage, IC fabrication knowledge is acquired with application part.
EPH-701	English language communication with modern source of communication is understood in the paper.
PPH-701	Optics, electromagnetic, electronics and computer practical knowledge obtained.

Department of Mathematics

Programme Outcome	Students will learn an understanding of major concepts, principal in all disciplines of Mathematics.
	Students know about four major focusing areas . Logical reasoning and motivation ,analysis and problem solving ,information and technology proficiency.
Programme Specific Outcome	<p>The programme leading to this degree provides the opportunities to develop and demonstrate knowledge and understanding in the following areas.</p> <p>When one has completed this degree she/he will have knowledge and understanding of the fundamental concept ,principles and techniques from a range of topic areas.</p> <p>When one has completed this degree she/he will be able to understand how to solve some problems using the methods taught and develop abstract mathematical thinking.</p> <p>When one has completed this degree she/he will be able to demonstrate the communication clearly knowledge ,ideas and conclusions about mathematical and improve his/her own learning and performance.</p>
Course Outcomes	
Course	Outcomes
Mathematics Paper-CC Math 111	To enable the students to learn about successive differentiation ,integration, Describe the various forms of equation of a plane, straight line, Sphere, Cone and Cylinder.
Mathematics Paper-PC Math 111	Students will understand the practical use of successive differentiation , integration, Describe the various forms of equation of a plane, straight line Sphere, Cone and Cylinder.
Mathematics Paper-ESMAT 111	To enable the students to learn about set theory ,functions.
Mathematics Paper-CC Math 122	Students will able to Compute sums, products, quotients, conjugate, modulus, and argument of complex numbers. • Calculate exponentials and integral powers of complex numbers. • Write equation of straight line, circle in complex form. Students will able to • Extract the solution of differential equations of the first order and of the first degree by variables separable, Homogeneous and Non-Homogeneous methods. • Find a solution of differential equations of the first order and of a degree higher than the first by using methods of solvable for p, x and y. • Compute all the solutions of second and higher order linear differential equations with constant coefficients, linear equations with variable coefficients.
Mathematics Paper-PC Math 122	Students will understand the practical use of complex number and differential equation and its application .
Mathematics Paper-ESMAT 12	To enable the students to learn about game theory, saddle point ,and industrial mathematics

Mathematics Paper-CC Math 301	Enable the student to get understand the limit ,continuity and partial derivatives ,application of partial derivatives,vector space ,linear transformation .
Mathematics Paper-PC Math 301	Students will understand the practical use of limit ,continuity and partial derivatives ,application of partial derivatives,vector space ,linear transformation .
Mathematics Paper-ESMAT 21	To enable the students to learn about logical statement,compound statement ,set theory de morgan's low,permutation and combination
Mathematics Paper-CC Math 302	Students will able to define Basic concepts of operators Δ, E, ∇ • Find the difference of polynomial • Solve problems using Newton forward formula and Newton backward formula. • Derive Gauss's formula and Stirling formula using Newton forward formula and Newton backward formula. • Find maxima and minima for differential difference equation • Derive Simpson's 1/3 ,3/8 rules using trapezoidal rule • Find the solution of the first order and second order equation with constant coefficient • Find the summation of series finite difference techniques • Find the solution of ordinary differential equation of first by Euler,Taylor methods
Mathematics Paper-PC Math 302	To enable the students how to practically use Newton forward formula and Newton backward formula. Gauss's formula and Stirling formula using Newton forward formula and Newton backward formula. Simpson's 1/3 ,3/8 rules using trapezoidal rule Euler,Taylor and Runge-Kutta methods
Mathematics Paper-CC Math 401	To enable the students to learn about curvature and radius of curvature ,multiple integration ,vector analysis and line & surface integral.
Mathematics Paper-PC Math 401	To enable the students to learn about the practical use of double integral ,beta and gamma function.green's theorem ,stoke's theorem,dual space,caycle hamilton theore.
Mathematics Paper-CC Math 402	To enable the students to learn about Vector Space, Quotient space Direct sum, linear span and linear independence, basis and inner product. Discuss the linear transformations, rank, nullity. • Find the characteristic equation, eigen values and eigen vectors of a matrix. • Prove Cayley- Hamilton theorem, Schwartz inequality, Gramschmidt orthogonalisation process. • Solve the system of simultaneous linear equations.
Mathematics Paper-PC Math 402	The students will understand the use of different methods like false position , bisection, N-R method ,bessel's method ,Euler's method.
Mathematics Paper-ESMAT 22	To enable the students to learn about probability,probability distribution

Mathematics Paper-CC Math 501	Students will able to • Define subgroup, center, Normalizer of a subgroup. • Find cycles and transpositions of a given permutations. • Prove Lagrange's theorem ,Euler's theorem and Fermats theorem • Define cyclic groups . • Prove a group has no proper subgroup if it is cyclic group of prime order. • Define normal subgroups , quotient groups and index of a subgroup. • Define homomorphism ,kernel of a homomorphism,isomorphism. • Prove Cayley's theorem , the fundamental theorem of homomorphism for groups
Mathematics Paper-CC Math 502	To enable the students to learn about number system , basic topology,sequence and series
Mathematics Paper-CC Math 503	To enable the students to learn about Compute all the solutions of second and higher order linear differentialequations with constant coefficients, linear equations with variable coefficients. Solve simultaneous linear equations with constant coefficients and totaldifferential equations. Form partial differential equations.Find the solution of First order partial differential equations for some standard types. Use inverse Laplace transform to return familiar functions • Apply Laplace transform to solve second order linear differential equation and simultaneous linear differential equations.
Mathematics Paper-CC Math 504	To enable the students to learn about relation ,poset,loset,lattice,sub lattice,min term and max term representation.
Mathematics Paper-ESMAT – 31	To enable the students to learn about differential calculus,integral calculus.
Mathematics Paper-PC Math 501 TO 504	Students can understand the use of Matlab. Using matlab students can calculate examples of vectors and matrices,polynomials,graphics,ordinary linear differential equation.
Mathematics Paper-CC Math 601	Students will able to know about ring,zero divisors,division ring,field,integral domain,quotient ring ,maximal ideals,prime ideals.
Mathematics Paper-CC Math 602	To enable the students to learn about limit and continuity, differentiation of two variables,the Riemann stieltje's integral,sequence and series of functions.
Mathematics Paper-CC Math 603	Students will able to know about topology,boundaty,subspace of topological connected space , topological properties.
Mathematics Paper-CC Math 604	Students will able toDescribe the origin of Graph Theory. Illustrate different types of graph theory. Explain independent sets and covering sets and some basic theorems.Discuss degree sequences and operations on graphs. Explain connectedness and components and some theorems.

	Characterize tree. Derive some properties of planarity and Euler's formula. Find chromatic number and chromatic polynomials for graphs. Prove Five colour theorem. Explain basic properties of directed graphs.
Mathematics Paper-Subject Elective	Students will able to know about Lpp formulation, graphical method, correlation and regression analysis
	➤ Students increase knowledge and skill in the fundamentals
Mathematics Paper-PC Math 601 TO 604	Students can understand the use of Matlab. Using matlab students can understand input-output statement, programming techniques loops, branches, analyses complex interactions among the various

ZOOLOGY DEPARTMENT

<p>Programme Outcome</p>	<p>animals of different phyla, their distribution and their relationship with the environment</p> <ul style="list-style-type: none"> ➤ Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms. ➤ Students will be able to explicate the ecological interconnectedness of life on earth by tracing energy and nutrient flows through the environment ➤ Understands the complex evolutionary processes and behavior of animals ➤ Correlates the physiological processes of animals and relationship of organ systems ➤ Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species ➤ Gain knowledge of Agro based Small Scale industries like sericulture, fish farming ,poultry. Aqua culture . ➤ Understands about various concepts of genetics and its importance in human health ➤ Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties ➤ Apply the knowledge and understanding of Zoology to one’s own life and work ➤ Develops empathy and love towards the animals and nature.
<p>Programme Specific Outcome</p>	<ul style="list-style-type: none"> ➤ Understand the nature and basic concepts of cell biology, genetics, Biochemistry taxonomy, Animal behavior . physiology, Evolution ecology & Environment and applied Zoology ➤ Pollution which is a burning problem of modern days, zoology students may help in this regard as using ecological knowledge can maintain the equilibrium ➤ Analyse the relationships among animals, plants . ➤ Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, tools and techniques of Zoology, Toxicology, Entomology, Sericulture, Biochemistry, Fish biology, Animal behavior . Immunology etc. ➤ Pathology laboratory needs technician for different analytical purposes and in forensic laboratory also need so, the zoology student may be treated as key persons ➤ Understand the applications of biological sciences in

	<p>Apiculture, Aquaculture,</p> <ul style="list-style-type: none"> ➤ Gains knowledge about Toxicology .Economic importance of animal ➤ In case of self employment apiculture, sericulture, fisheries and lac culture are the important areas are covered by zoology ➤ Contributes the knowledge for Nation building
--	--

Program Course Outcomes

<p>Sem 1 Invertebrate Zoology I</p>	<p>Understand the evolution, history of phylum. Understand about the General Body organization of Non Chordate animals. To study the external as well as internal characters of non chordates. Understand the economical importance of invertebrate . To study and understand the Cytogenetic Understand the various internal systems like Digestive system, nervous system with the help of charts/ model. To aware the students for various parasites and diseases which spreads in human .To aware the students and provides the economical importance of Apiculture. Students gain knowledge about various systems study of silkworms.</p>
<p>Sem II Invertebrate Zoology II</p>	<p>Different groups of invertebrate animals are studied in this course including , Annelida, Arthropoda, Mollusca and Echinodermata.and Hemichordata General characters and classification upto class are studied. Some special features, organs, , life history and significance are studied here. .Understand the process of composition of blood and blood related diseases and Gemetogenesis.Ovolution.Manstrual cycle and Fertilization. Identify the own Blood group. aware about ecology and wild lif.</p>
<p>Sem III Non Chordata and Applied zoology</p>	<p>Different groups of invertebrate animals are studied in this course including , Annelida, Arthropoda, Mollusca and Echinodermata. and hemichordate General characters and classification upto Ordar are studied To aware the students for Protozoan and Helminthes parasites and diseases .Understanding of Insect vector host interactions of many important diseases like Malaria Filaria, To aware the students for important of invertebrate in pharmaceuticals industry, students also gain knowledge prevention and control of Household insect. Students gain knowledge about the concepts of overview of Entomology Course</p>

	<p>provides them comprehensive understanding about aquatic ecosystem and various economical important fishes. Course provides them comprehensive understanding about aquatic ecosystem and various economical important fishes Students gain knowledge about also poultry industri</p>
<p>Sem IV Chordata and Histology and physiology.</p>	<p>Imparts conceptual knowledge of vertebrates Understand the Organization of Protochords, Urochordata and Cephalochordata. .Understand and study of the Origin and physilogeny of the vertebrates.</p> <p>In this paper the students are taught the detailed Histological structure of stomach and intestine .Respiration and excretion .Understand the classes of vertebrates Protochordata fishes, Amphibia, and also know identification key of poisonous and non poisonous snake. Economic important of Herpets .bird and mammals. Students gain fundamental knowledge of animal physiology and fish preservation. These students will be well equipped to execute the roles of a biology teacher or medical lab technicians with training as they have basic fundamentals</p>
<p>Sem V comparative anatomy of vertibrata .Developmental biology .Genetics .Environmental biology and Toxicology.</p>	<p>With the study of this paper students gain knowledge in the areas of responses. In this segment we teaches about the comparative structures of heart, aortic arches, , respiratory organs, brain of different animals which give them a definite idea not only the structure but also the structural development of that organ and how they become modified according to their need and environment .Understand the terms: Gametogenesis, Fertilization and early development. Aware the students for Toxicology and its adverse effect on living organism. It involves the study of the adverse effects of chemical substances on living organisms. provides opportunities for students research projects, internships in assessing the effects of toxic.</p>
<p>Sem VI Biochemistry. Ecology and Animal Behaviour.Evolution .zoogeography and Biodiversity, Tools & Techniques. immunology</p>	<p>Understand the structure and function of carbohydrate, amino acids, proteins, and lipids Understand the process of evolution. Students gain knowledge of the Zoogeographical realm, and isolation and variation. Understand the computation of Arithmetic Mean, Mode, median Standard deviation, Understand the Various Microscope and Microscopic techniques. Imparts knowledge to the student regarding environment and conservation biology. Biodiversity and Conservation</p>

<p>&Radiation biology.Biostatistics</p>	<p>increase awareness and understanding of how human life depends on preserving animal species and natural ecosystems. Key threats to biodiversity, including habitat modification and loss, unsustainable resource use, introduced species and climate change. Provides basics knowledge about immune system and allows the student to create insight as how to improve their immune system and good health.</p> <p>The students will be well equipped to become very competent in research or teaching fields after completion of this course</p>
---	---

<p align="center">DEPARTMENT OF BOTANY</p>	
<p>Program Outcomes (PO)</p>	<p>Environment and Biodiversity: Understand the issues of environmental contexts and Biodiversity.</p>
	<p>Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.</p>
	<p>Effective Communication: Speak, read, write and listen clearly in person and through electronic media in Gujarati and English. Connect with the world through people, ideas, books, media and technology.</p>
	<p>Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in field visits and group settings.</p>
	<p>Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.</p>
	<p>Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.</p>
	<p>Program Specific Outcomes (PSO)</p>
<p>Analyze the relationships among animals, plants and microbes.</p>	
<p>Perform procedures as per laboratory standards in the areas of Biochemistry, Biostatistics, Physiology, Embryology, Taxonomy, Economic Botany and Ecology.</p>	
<p>Self-employment in the fields as: The horticultural plant production, cultivation of crops in poly-house condition, plant tissue culture laboratories etc.</p>	

B.Sc Course Outcome (CO)	
Course	Outcome
Botany Paper –CC BOT-111	To enable students with cell structure, cell organelles and their function. Plant Diversity: This subject will provide a complete picture about the taxonomical classification of Algae and fungi. Anatomy: In this topic students will learn about various tissues of plants. Environmental Biology: It provides understanding of ecosystem, abiotic and biotic factors and interrelationships.
Botany Paper –PC BOT-111	Practical knowledge and the implementation of the concepts studied.
Botany Paper –CC BOT-122	Genetics: The students should have a sound knowledge about Mendels law and gene interaction. Plant Diversity: This subject will provide a complete picture about the taxonomical classification of Bryophyte and pteridophyte. Morphology of Leaf and Plants used as cereals, pulses, nuts, spices.
Botany Paper –PC BOT-122	Practical knowledge and the implementation of the concepts studied.
Botany Paper –CC BOT-211	Students will understand morphology of flower and its parts, classification and character's of gymnosperms And types and formation of fossils, Cell division and cellular interaction.
Botany Paper –CC BOT-212	Student will learn plant water relation, Ecological adaptations, Linkage, crossing over, multiple alleles.
Botany Paper –PC BOT-211	Practical knowledge and the implementation of the concepts studied.
Botany Paper –PC BOT-212	Practical knowledge and the implementation of the concepts studied.
Botany Paper- ES-211	Students will learn the structure and functions of DNA, its history, types and properties.
Botany Paper –CC BOT-221	Students will understand morphology of fruits and life cycle of sunflower and maize, classification of flowering plants and anatomy of plant tissues.
Botany Paper –CC BOT-222	Students will understand types of ovule, Microsporangium, Mega sporangium, pollen germination, carbohydrates, protein, lipids and amino acids its classification and structure, transpiration.
Botany Paper –PC BOT-221	Practical knowledge and the implementation of the concepts studied.
Botany Paper –PC BOT-222	Practical knowledge and the implementation of the concepts studied.
Botany Paper- ES-213	Students will learn about types of diversity, value of diversity, hotspots of diversity.
Botany Paper –PC BOT-211	Practical knowledge and the implementation of the concepts studied.
Botany	Practical knowledge and the implementation of the concepts

Paper –PC BOT-212	studied.
Botany Paper –CC BOT-311	Students will learn about the life history of algae, fungi and plant diseases its symptoms, causal organism and host.
Botany Paper –CC BOT-312	Students will learn about the life history of bryophytes, pteridophytes and gymnosperms.
Botany Paper –CC BOT-313	Students will learn to identify plants, biotic and abiotic factors and secondary growth in plants.
Botany Paper –CC BOT-314	The students should have a sound knowledge about gene, DNA, RNA, Transcription, Translation, genetics of Plants. Cell structure of bacteria and biostatistics.
Botany Paper –PC BOT-311	Practical knowledge and the implementation of the concepts studied.
Botany Paper –PC BOT-312	Practical knowledge and the implementation of the concepts studied.
Botany Paper –PC BOT-313	Practical knowledge and the implementation of the concepts studied.
Botany Paper –ES BOT-302	Student will know the plant life in water and its ecosystem.
Botany Paper –CC BOT-321	Student will know gene, DNA, RNA, Transcription, Translation, genetics of Plants. Disease caused on plants by microorganisms, types of lichens and plant identification through morphology.
Botany Paper –CC BOT-322	Students will learn about lipid metabolism and process of photosynthesis and respiration.
Botany Paper –CC BOT-323	On Successful Completion of this subject the students should have a sound knowledge about the Recombinant DNA Techniques used in plant research. Preparation of media for plant tissues culture. Plants used as oil, fibers, dyes.
Botany Paper –CC BOT-324	Students will get familiar with internal structure of stem and root, staining and mounting and cross and self pollinated plants.
Botany Paper –PC BOT-321	Practical knowledge and the implementation of the concepts studied.
Botany Paper –PC BOT-322	Practical knowledge and the implementation of the concepts studied.
Botany Paper –PC BOT-323	Practical knowledge and the implementation of the concepts studied.
Botany Paper –ES BOT-303	Students will know about the pollution caused by Air and air pollutants.
M.Sc Course Outcome (CO)	
Course	Outcome
Botany Paper –MSBOT-101CC	General character's, structure, classification and reproduction of Bacteria, General character's, economic importance, life cycle pattern of Algae, Fungi, and plant diseases.

Botany Paper – MSBOT-102CC	General character's, classification, economic importance, life cycle pattern of Bryophytes, Pteridophytes, Gymnosperms and detailed study of fossils.
Botany Paper – MSBOT-103ID	To inculcate knowledge in cell structure, cell organelles and their function, Concepts of Genetics and population genetics.
Botany Paper – MSBOT-101PR	Practical knowledge and the implementation of the concepts studied.
Botany Paper – MSBOT-102PR	Practical knowledge and the implementation of the concepts studied.
Botany Paper – MSBOT-103PR	Practical knowledge and the implementation of the concepts studied.
Botany Paper – MSBOT-101ES	This subject will help students to understand the importance of biodiversity and its conservation.
Botany Paper – MSBOT-201CC	This subject will provide a complete picture about the taxonomical classification of flowering plant and Reproduction.
Botany Paper – MSBOT-202CC	To inculcate knowledge about role of plants in eco system, biodiversity conservation and internal structure of plants, various theory of root and shoot apex.
Botany Paper – MSBOT-201ID	Principles and Applications Enable the student to get sufficient knowledge in principles and applications of bio instruments and biochemical properties of molecules and vitamins
Botany Paper – MSBOT-201PR	Practical knowledge and the implementation of the concepts studied.
Botany Paper – MSBOT-202PR	Practical knowledge and the implementation of the concepts studied.
Botany Paper – MSBOT-203PR	Practical knowledge and the implementation of the concepts studied.
Botany Paper- ES-202	Students will learn about plant tissues culture, its laboratory organization and various methods of propagation.
Botany Paper – MSBOT-301CC	Students will understand various physiological processes such as growth and development, mineral transport and photobiology and flowering in plants.
Botany Paper – MSBOT-302CC	To know various plants used as food, fodder, timber, dyes, medicine and its conservation. They will also develop a sound knowledge about the ANOVA, coefficient of correlation, probability, chi square, f-test, t-test, population genetics.
Botany Paper – MSBOT-301ID	On Successful Completion of this subject the students should have a sound knowledge about the genetics of plants and Recombinant DNA Techniques used in plant research.
Botany Paper – MSBOT-301PR	Practical knowledge and the implementation of the concepts studied.
Botany	Practical knowledge and the implementation of the concepts

Paper – MSBOT-302PR	studied.
Botany Paper – MSBOT-303PR	Practical knowledge and the implementation of the concepts studied.
Botany Paper- ES-302	Students will learn about air pollution and factors causing air pollution.
Botany Paper –MSBOT-401CC	Students will learn about Biosafety and Bioethics, IPR, Patent Protection, GATT, TRIPS, Plant breeder’s right, seed certificate and horticulture.
Botany Paper – MSBOT-402CC	This subject will provide knowledge of mushroom and its culture, uses of plants as medicine.
Botany Paper –MSBOT-401PR	Practical knowledge and the implementation of the concepts studied.
Botany Paper – MSBOT-402PR	Practical knowledge and the implementation of the concepts studied.
Botany Paper – MSBOT-401MP	The main objective of Project and viva voce is to inculcate Research interest among students Industrial training and viva-voce. To gain hands-on experience ‘ related to field so that students can relate and reinforce what has been taught at the class room.
Botany Paper – MSBOT- 401SK	This subject will help students to develop computer skills.