

J. D. M. V. P. Co-Op. Samaj's
Shri S.S. Patil Arts, Shri Bhausaheb T.T. Salunkhe Commerce and
Shri G.R. Pandit Science College, Jalgaon

Course Outcomes 2023-24

Humanities		
Class	Course	Outcomes
F Y B A Marathi	MAR – 111(A) Aadhunik Gadya va padya Vangamay prakar svarup vichar	<ul style="list-style-type: none"> • Develop Marathi reading & linguistic comprehension of students • Develop interest in literature fiction and story. • Inculcate moral and human values within themselves • Understand the types of Marathi Short Story Writing.
	MAR-121 (A) Aadhunik Gadya va padya Vangamayprakar svarup vichar	<ul style="list-style-type: none"> • Develop Reading, Writing & Communication skills of students • Develop attitude of literary forms Marathi Poetry. • Understand the basic forms of fiction and Poetry. • Students learn Values through literary works.
F.Y.B.A. Hindi	DSC HIN A-1 Samanya Hindi Kahani & Kavita	<ul style="list-style-type: none"> • Develop Hindi reading & linguistic comprehension of students. • Develop interest in literature story. • Inculcate moral and human values within themselves. • Understand the types of Hindi Short Story Writing.
	DSC HIN A-2 1 Samanya Hindi Kahani & Kavita	<ul style="list-style-type: none"> • Develop Reading, Writing & Communication skills. • Develop knowledge of literary forms Hindi poetry. • Understand the basic forms of Poetry. • Learn values through Hindi Poem.
F.Y.B.A. English	Compulsory English CENG-101 & 201	<ul style="list-style-type: none"> • Students will develop the ability to comprehend the written texts. • Moral and human values will be inculcated amongst the students. • Students will be aware of the aesthetic pleasure of literature. • Students will be proficient in speaking and writing English for different purposes. • Students will be aware of the importance of the communicative competence.
	OENG-101 & 201	<ul style="list-style-type: none"> • The course will introduce the basic forms of literature to the students. • The course will develop the liking of reading in the students. • The course will inspire students to develop their creative ability. • Consequently, the course will develop reading skill and creative and expressive ability of the students.
F.Y.B.A. Economics	Introductory Economics ECO-101(A)	<ul style="list-style-type: none"> • Describe the Nature of scope and subject matter of Economics • Understanding The compete circular flows of Economic Activities • present the Law of Diminishing Marginal Utility • Identify of the Price Elasticity of Demand • Introduce the Concept of Revenue. • Identify of the Law of Supply. • Classify of the Market. • Understanding the Demand supply and Equilibrium Perfect competition market
	Introductory Economics ECO-201(A)	<ul style="list-style-type: none"> • Classify of the Economic development and Economic Growth. • Identify of the Indicators of Economic Development.

		<ul style="list-style-type: none"> • Describe the Exchange system. • Present the Role of Banking. • Introduce of the Differences International and internal Trade. • Classify of the Differences Between BOT and BOP. • Understanding the Government expenditure • Introduce of the Government budget and types of budget.
F.Y.B.A. Geography	Physical Geography -Part I	<ul style="list-style-type: none"> • Write down the effect of rotation of revolution the Earth • Describe of the interior structure of the earth • Write down the importance of longitudes & latitudes International Date line and Standard time • Which are Theory regarding of Origin of Continents and oceans • Describe the formation of Rocks Understand the work of internal and external forces and their associatedlandforms.
	Physical Geography -Part II	<ul style="list-style-type: none"> • Write down the importance of Atmosphere • Describe the composition of atmosphere • Write down how to measure of Atmospheric Pressure and formation of Pressure Belts • Identify the types of winds
F.Y.B.A. History	History of India (1857-1950)	<ul style="list-style-type: none"> • Evaluate Consolidation of English Power in India. • Analyse Social Religious Consciousness in India. • To Introduce Various Perspective of the Indian Freedom Movement. • To Develop the Spirit of Nationalism among Student. • To Bring an awareness among the student as Responsible Citizens.
	History of India (1857-1950)	<ul style="list-style-type: none"> • Understand the Ideology of Lokmanya Tilak & Mahatma Gandhi. • To Develop the Spirit of Nationalism among Student. • Understand the process of Negotionans for Independence and Partition of India. • Understand the making of the constitution. • To Bring an awareness among the student as Responsible Citizens.
F.Y.B.A. Defence Studies	Def-101. Military System of Modern India (up to -1947)	<ul style="list-style-type: none"> • Students understood the concept of war. • Students understood the meaning and types of strategies. • Students were aware about the ancient and modern war history • Students understood the war planning, military strength, weapons, effects and military lessons of various warsfought on the Indian Territory.
	Def-201. Military System of Modern India (up to -1947)	<ul style="list-style-type: none"> • Students understood the concept of war. • Students understood the meaning and types of strategies. • Students were aware about the ancient and modern war history • Students understood the war planning, military strength, weapons, effects and military lessons of various warsfought on the Indian Territory.
F.Y.B.A. Political Science	POL-G-101-Introduction to Indian Constitution.	<ul style="list-style-type: none"> • To know Indian Political process in India. • To know the citizens rights and duties. • Understand basic structure of Indian Constitution. • Understand basic features of Indian Constitution. • Understand Indian Federal system.
	POL-G-201-A-Introduction to Indian Constitution.	<ul style="list-style-type: none"> • To know the Executive system in India. • To know the Legislative system in India. • To know the Judicial system in India. • To understand the emerging challenges before Indian Democracy.

		<ul style="list-style-type: none"> ● To understand the concept of National Integrations.
F.Y.B.A. Psychology	Foundations of Psychology PSY-101	<ul style="list-style-type: none"> ● Impart knowledge of the basic concepts and modern trends in Psychology. ● Relate the fundamental principles of psychology in everyday life. ● Make the students aware of the applications of psychological concepts in various fields. ● Understands the basics of social psychology and to understand the individual in the social world. ● Make the students aware of the applications of the various concepts in social psychology in the Indian context.
	Introduction to social psychology PSY-201	<ul style="list-style-type: none"> ● Impart knowledge of the basic concepts and modern trends in Psychology. ● Relate the fundamental principles of psychology in everyday life. ● Make the students aware of the applications of psychological concepts in various fields. ● Understands the basics of social psychology and to understand the individual in the social world. ● Make the students aware of the applications of the various concepts in social psychology in the Indian context.
F.Y.B.A. Sociology	SOC.G: Introduction to Sociology Soc-101 & Soc-201	<ul style="list-style-type: none"> ● To understand origin and development sociology ● To introduce students about social institutions and its utility ● To understand the student's various societal processes such as competitions, cooperation and conflicts ● To introduce students about family importance
S.Y.B.A. Marathi	MAR-231 – Vaicharik Gadya Lekhanacha Abhyas	<ul style="list-style-type: none"> ● Develop Attitude of Literary forms in Marathi Novel. ● Information about the history of modern Marathi Literature. ● Information about Literary Theory. ● Develop the Novel reading skills.
	MAR-241 – Charitry- Aatmcharitry par Lekhanacha Abhyas	<ul style="list-style-type: none"> ● Develop Attitude of Literary forms in Marathi Aatmkathan. ● Get information well known writer in Marathi. ● Get information about the autobiography.
	MAR-232 – Madhyayugin Gadya Vangmay Prakaracha Abhyas	<ul style="list-style-type: none"> ● Get information about Acidnyapattra. ● Get information about Shivaji Maharaj. ● Get information well known writer Ramchadra Pant Amatya. ● Know the concept Gadya Vangamaya.
	MAR-242 – Madhyayugin Padya Vangmay Prakaracha Abhyas	<ul style="list-style-type: none"> ● Know the concept Padya Vangamaya. ● Get information about Sant Poet & their literature. ● Get information about Sant literature forms. ● Get information well Known Poet Sant Chokhamela, Sant Janabai, Sant Narhari Sonar etc.
	MAR-233 – Sahitya Swarup Vichar	<ul style="list-style-type: none"> ● The students develop interest in literature ● Information about the ancient Marathi Literature. ● Know the concept and process of Literature. ● Know Western Poetry Structure in ancient and modern era.
	MAR-243 – Sahitya Swarup Vichar	<ul style="list-style-type: none"> ● Information about the history of Marathi Literature. ● Know the concept & process Literature. ● Know the Indian Literature structure in ancient and modern era. ● Increase vision regarding literary value.
	MAR- 234- Lekhan Kaushalya Mudrit Shodhan	<ul style="list-style-type: none"> ● Information about the proof reading ● Know the concept and practice proof.

		<ul style="list-style-type: none"> • Career oriented guidance this syllabus.
	MAR- 244- Lekhan Kaushalya Sarganshil lekhan	<ul style="list-style-type: none"> • Information about the proof reading • Know the concept and practice proof. • Career oriented guidance this syllabus.
	MAR-236- Mudrit Madhymansathi lekhan	<ul style="list-style-type: none"> • Know the concept of creative writing. • The students learn and practices creative writing.
	MAR-246-Shravya Madhymansathi lekhan	<ul style="list-style-type: none"> • Know the concept of creative writing. • The students learn and practices creative writing.
S.Y.B.A. Hindi	MIL-I HINDI- Lekhan Koushal: Media Evam Sahitya(Laghukatha)	<ul style="list-style-type: none"> • Develop knowledge of Literary forms in Hindi Short Story. • Obtained information about the history of modern Hindi Short Story. • Obtained information about Journalism, types of Journalism. • Develop the Media Writing skills.
	MIL-II- HINDI- Lekhan Koushal: Media Evam Sahitya(Geet-Navgeet)	<ul style="list-style-type: none"> • Develop knowledge of Literary forms in Hindi Geet-Navgeet. • Get information about well-known lyricist in Hindi. • Get information about Media Writing ie. Print Media, Electronic Media, Social Media.
	DSE-I A-HINDI – Kavyashashtra	<ul style="list-style-type: none"> • Know Indian Poetry structure in ancient and modern era. • Know the importance of criticism. • Increase vision regarding literary value. • Get information about Alankar in Hindi Literature.
	DSE-I -B-HINDI – Kavyashashtra	<ul style="list-style-type: none"> • Know the concept types of Literature. • Get information about Gadya & Padya Vidha's. • Get information about Chhand in Hindi Literature. • Know the concept and process of literature. • Know Western Poetry Structure in ancient and modern era.
	DSE-II -B-HINDI – Upanyas Vidha – Samay Saragam	<ul style="list-style-type: none"> • Develop interest in Novel. • Get information about the ancient Hindi Literature. • Know the concept and process of Literature. • Understand Novel forms and their types.
	DSE-II -B-HINDI – Natak Vidha – Dharati Aba	<ul style="list-style-type: none"> • Know the concept of Drama. • Know the concept and process of dramatics. • Increase vision regarding literary value. • Learn the origin of drama as dramatic art.
	DSC-I(C) A HINDI : Kathettar Gadya Vidhayen	<ul style="list-style-type: none"> • Know the concept of Hidi Kathettar Gadya. (non-scriptural prose compositions) . • Get information about various literary forms. • Get information about various writer and their literature. • Tried to promote and preserve human values through Hindi Kathettar Gadya.
	DSC-I(D) A HINDI : Shreshth Hindi Ekanki	<ul style="list-style-type: none"> • Historical introduction of hindi one act play form. • Obtained information about hindi one act play writer. • Tried to promote and preserve human values through Hindi Kathettar Gadya
	SEC-1 HINDI : Bhashik Sampreshan	<ul style="list-style-type: none"> • Get introduced to Linguistic form of Hindi language. • Obtained information about concept of linguistic communication. • Get introduced to verbal communication and non-verbal (written)communication.
	SEC-II HINDI : Anuwad Vigyan	<ul style="list-style-type: none"> • Know the concept of Translation. • Obtained information about Literary Translation. • Obtained information about Literary Translation.
S.Y.B.A. English	Compulsory English CENG-101 & 201	<ul style="list-style-type: none"> • Students will understand the written text. • Some human and moral values will be inculcated amongst students. • Communicative competence of students will be developed, with special

		<p>reference to SMS, E-Mail, NetLingo etc.</p> <ul style="list-style-type: none"> • Students will learn to communicate through Situational Dialogues, News Writing, Information Transfer: Non-verbal, Verbal • Students will get acquainted with formal and informal styles in using English. • Students will be able to make and use new words.
		<ul style="list-style-type: none"> • Students will develop interest in reading/understanding novel and drama. • Students will be acquainted with Novel and Drama as genres of literature. • Students' competence to study, understand, analyse and interpret novel and drama will be developed. • Students will understand key terms useful in the study of novel and drama. • Students will understand major types of novel and drama.
	DSE 1A & B	<ul style="list-style-type: none"> • Students will be acquainted with the major literary trends and tendencies and prominent writers of the 16th and 17th Century English Literature. • Students will be aware of the literary history, salient features and sociocultural background of the period. • Students will be able to grasp the content and critically appreciate the prescribed texts. • Liking for the Elizabethan and Post Shakespearean literature will be inculcated amongst students.
	DSE 2 A & B	<ul style="list-style-type: none"> • Students will understand basic ideas about the 18th and 19th Century English Literature with special reference to Poetry and Novel. • Students will be aware of the literary history, salient features, socio-political and cultural background of the Romantic and Victorian age. • Students will be able to grasp the content and critically appreciate the prescribed Texts. • Liking for the Romantic and Victorian literature will be inculcated amongst students.
	SEC-I	<ul style="list-style-type: none"> • Students will be able to prepare for the competitive exams of various kinds especially meant for testing ability in English language. • Students will be introduced with the common question types asked in competitive examinations concerning English- grammar, vocabulary, comprehension, and other significant topics. • Students will be motivated to appear and prepare for the competitive exams. • Students will be able to overcome the fear about English as a compulsory subject in various competitive exams.
S.Y.B.A. Economics	Indian Economy Since 1980-I	<ul style="list-style-type: none"> • Introduce of Developing Economy • Identify of Mixed Economy • Describe of LPG and structural changes in economy • Introduce of Indicators of Human Development • Identify of Problems of High Population • Describe the Recent National Population Policy • Understanding the Energy: Importance • Present of Transport: Road, Railway, Air a Types • Introduce of Irrigation: Sources and Problem • Describe the Agricultural Finance • Classify of the Agricultural Marketing • Understanding the Problem of farmers suicide : Causes and Measures

	Indian Economy Since 1980-II	<ul style="list-style-type: none"> • Introduce of Role of Industrialization in Economy • Identify of small scale Industries • Introduce of New Industrial Policy • Introduce of Co-operative Banking • Describe the Co-operative Sugar Industries • Defects in co-operative system • Present of Strategies of Planning • Classify of the Achievements and Failures • In Classify of the SEZ • Understanding the Disinvestment policy • Introduce of Direct Cash Transfer Schemetroduce of XIIth Five Year Plan : Objectives
	DSE ECO 232 A - Agricultural Economics-I	<ul style="list-style-type: none"> • Understand of the Agricultural Economics: Definition and meaning; nature scope and Importance. • Introduce of Agriculture sector in Economic Development. (Special Reference to Indian Economy) • Understanding of Dependency between Agriculture and Industry. • Classify of the Types of land holding (Basic holding optimum holding, family holding, operating holding, marginal and small size holding, medium and large size holding) • Identify of The Size, productivity and efficiency of land holding. • Describe of Farm organization: peasant/ farming, capitalist farming, state farming, collective farming, cooperative farming, group farming, contract farming, organic farming. • Understand of the Most suitable farm organization for Indian Agriculture • Identify of the Differences between risk and uncertainty, types of uncertainty, measures to deal with uncertainty • Classify of the Instability of agriculture: Types of instability in agriculture (Price instability, income instability) • Classify of the Types of fluctuation and their causes (Long term movement, cyclical fluctuation, seasonal fluctuation, annual fluctuation, irregular fluctuations.)
	DSE ECO 242 B - Agricultural Economics- II	<ul style="list-style-type: none"> • Identify of the Objectives of agricultural price policy • Understand of the Bases of price fixation • Describe of Price policy for agricultural inputs. • Classify of the Consumer protection and agricultural price policy. • Introduce of the Agricultural price policy in India: Agricultural price policy before 1965, positive Agricultural price policy after 1965 (Agricultural prices commission, objectives of Agricultural price policy in India, Important constituents of Agricultural price policy in India, fixation of minimum support prices, distinction between support prices and procurement prices) • Identify of the Recent price policy of India (Reforms period) • Identify of the Importance of an efficient system of agricultural marketing. • Describe of the Efficiency criteria for agricultural marketing. • Classify of the Efficiency of the Indian agricultural marketing • Introduce of the Mechanization in agriculture, meaning, Desirability of mechanization of Indian agriculture, arguments for and against. • Describe of Meaning of Agricultural labour, classification of Agricultural labour.

		<ul style="list-style-type: none"> • Identify of Growth in the number of Agricultural labours in India and its causes • Understanding of the problems Minimum wages of Agricultural labour. • Describe of the Migration of Agricultural labours. • Solving of the Problems and difficulties of Agricultural labours, suggestion to solve the problems of Agricultural labours.
	Advanced Macro Economics-I	<ul style="list-style-type: none"> • Introduce of Macro Economics. • Introduce of the Scope of Macro Economics. • Describe of the Importance • Introduce of the National Income. • Understanding of the Gross National Product (GNP) • Understanding of the Gross Domestic Product (GDP) • Describe of the Says Law of market. • Describe of the Theory of Employment. • Classify of the effective demand • Describe of the consumption function • Analysis of the Investment function. • Describe of the accelerator principle.
	Advanced Macro Economics II	<ul style="list-style-type: none"> • Understand of the money supply. • Introduce of the Commercial Banks. • Analysis of the Quantitative and Qualitative credit controls • Describe of the Concept of Money • Analysis of the Cambridge approach • Analysis of the Fishers approach • Describe of the Trade cycle • Analysis of the pull and cost push inflation • Describe of the Stagflation. • Analysis of the Macro Economic Policies. • Understand of the Phillips Curve. • Analysis of the Supply side economics
	SEC ECO 234-Research Methodology for Economics-I	<ul style="list-style-type: none"> • Introduce of research • Classify the Types of Research • Describe of Economics Research • Introduce of Nature of Economics Research • Importance and Limitation of Economics Research • Understanding of Research Design • Describe of the Characteristics of Good Necessary of Research Design • Classify the type of Research Design • Introduce of Research Hypothesis • Classify the Type of Data Collection • Introduce by the Questionnaire. • Understanding the Observation- Meaning, Types, Merits and demerits of each type, Process of observation,precaution of take for observation.
	SEC ECO 244-Research Methodology For Economics-II	<ul style="list-style-type: none"> • Introduce of Secondary data collection • Classify of the Types of secondary data • Describe of the Merits and demerits of secondary data • Understanding the Case study • Introduce Historical method

		<ul style="list-style-type: none"> • Understanding of Sampling • Classify the Types of sampling
S.Y.B.A. Geography	Economic Geography(G2)	<ul style="list-style-type: none"> • Describe the economic activity with characteristics • Write down the problem and prospect about agriculture, trade and transport. • Describe the need of conservation and Protection of natural resources. • Describe the distribution of minerals & power resources
	Human Geography(G2)	<ul style="list-style-type: none"> • Describe the relationship of man and environment • Studies of races of man kinds • Write down information modes of life of Santhal, gonad, Bhil And nagas.
S.Y.B.A. History	History of the Marathas (A.D.1605-1750 A.D.)	<ul style="list-style-type: none"> • Understand the concept of swarajya in Maratha History. • Explain the responsible factors for the establishment of swarajya. • Evaluate the relation between Chh. Shivaji Maharaj and Adilshahi and Mughals. • Get knowledge about the importance of coronation & Administration of Chh. Shivaji Maharaj. • Create and enhance interest about regional History among the students
	History of the Marathas (A.D.1605- A.D.1750)	<ul style="list-style-type: none"> • Understand the achievements of Chhatrapati Sambhaji • Explain the significance of Marathas War of Independence • Evaluate the relation between Maratha Power and Foreign Powers. • Explain the responsible factors for the Rise of Peshwas. • Understand the work of Peshwa Bajirao - I & Peshwa Balaji Bajirao
	G201- India's Internal Security	<ul style="list-style-type: none"> • The students understood the meaning and concept of national security. • Students were aware of various security challenges to India's national security. • Students understood the various internal security challenges like regionalism, Communalism, Social problems,etc in India. • Students were aware of major challenges like Terrorism, Naxalism, Insurgency to the security of India.
S.Y.B.A. Political Science	POL- DSC-1C- Introduction to Administration of Maharashtra .	<ul style="list-style-type: none"> • Students understand Maharashtra's Historical, Geographical, Social, Political background. • Understand Administration system in of Maharashtra. • Get Knowledge about Panchayati Raj system in Mahatrastra. • To know District Administration of Maharashtra. • To know the various wings of secretariate.
	POL-DSC-1D- Introduction to local and Administration of Maharashtra.	<ul style="list-style-type: none"> • Understand Historical Background of Rural and Urban Administration of Maharashtra. • Students understand Rule of law. • To know Adivasi Vikas Mandal in Maharashtra. • To know Marathawada Vaidhanic Mandal of Maharashtra. • To know Minority Development board in Maharashtra.
S.Y.B.A. Psychology	Advanced social Psychology PSY-231-A & Social Psychology Process PSY-241-	<ul style="list-style-type: none"> • Describe basic concepts, methodology, theories and modern trends in social psychology. • Analyze causes, types and consequences of social behavior. • Identify various fields of social psychology for research.

	A(G2)	<ul style="list-style-type: none"> • Identify social problems and able to find out its solution. • Apply various concepts in social psychology in Indian social context.
	Psychodiagnosics PSY-232 & Psychopathology PSY-242 (Special 1)	<ul style="list-style-type: none"> • Define abnormal behavior and explain the rationale behind it. • Discuss procedures used to evaluate and diagnose abnormal behavior. • Explain general causes of abnormalities. • Compare and integrate biological, Psychological and socio-cultural explanation of abnormal behavior. • Identify treatments for mental disorders and compare their efficacy in treating such disorders.
	Counseling Content and Process PSY-233-A & Counseling Therapy and Application PSY-243-A (special 2)	<ul style="list-style-type: none"> • Explain nature, process, theories and techniques of counseling. • State applications of counselling for day-to-day problems. • Explain use of psychological tests to understand the clients. • Familiarizes the students with counseling therapy. • Develop knowledge in students about how to follow up the behavioral problems and solve through with the help of therapy. • Students should know the application of the counseling therapy.
S.Y.B.A. Sociology	SOCG2: Indian society : Issues and Problems.	<ul style="list-style-type: none"> • To introduce students about the various social problems • To aware students about modern age challenges and issues • To raise the competency and values among students about humanity • To ensure the personal development of students
TYBA Marathi	(G3) MAR-351 – Ekankika Lekhanacha Abhyas	<ul style="list-style-type: none"> • Know the concept of Drama. • The students learn the origin of drama as dramatics art. • Students are acquainted with the language, style, dialogue structure of the age to which it belongs. • Students learn value through literary works.V
	(G3) MAR-361 – Lalit Gadya Lekhanacha Abhyas	<ul style="list-style-type: none"> • Introduce to the Minor genres such as one act play. • Use literature to develop their social and moral sense in life. • Develop attitude of literary forms.
	(S3) MAR-353 – Madhyayugin Marathi Vangamayacha Itihas	<ul style="list-style-type: none"> • Know the Types of Marathi Vagamaya. • Study the socio-cultural & Political background on from 1920 to 1960. • Know the brief literature in same period.
	(S3) MAR-363 – Madhyayugin Marathi Vangamayacha Itihas	<ul style="list-style-type: none"> • Study the socio-cultural & political background on from 1920 to 1960. • Know the brief literature in same period. • Know the various literary form in same period. • Know the importance of language.
	(S4) MAR-354 – Marathicha Bhashik Abhyas	<ul style="list-style-type: none"> • Know the importance of language in human life. • Know the various methods to the study of language. • Understand the communication process and method. • Develop Attitude of Marathi Linguistics & Grammer.
	(S4) MAR-364 – Marathicha Bhashik Abhyas	<ul style="list-style-type: none"> • Know the concept of Linguistics. • Know the importance of language in human life. • Know the various methods to the study of language. • Understand the communication process and method.
	GE-1 Marathi Lokrangbhumi	<ul style="list-style-type: none"> • To know concept of folk theatre. • To know the nature of folk theater & to introduce the characteristics • To understand the interrelationship between folkler & folk theater
	GE-2 Marathi Lokrangbhumi	<ul style="list-style-type: none"> • To know concept of folk theatre. • To know the nature of folk theater & to introduce the characteristics • To understand the interrelationship between folkler & folk theater

	MIL Druk -Shravay Madhyamansathi Lekhan v Sanvad	<ul style="list-style-type: none"> • To introduce the audio visual media of television • To know the function & utility of television & audio vision media • Knowing the nature of communication skills required for television
	MIL Aadhunik Samaj Madhyamansathi Lekhan v Sanvad	<ul style="list-style-type: none"> • To know the special introduction of modern society of media • To know the function & utility of modern society of media
TYBA Hindi	(G3) HIN-351 – One Act Play,	<ul style="list-style-type: none"> • Get introduced to the Minor genres such as one act play. • Acquainted with the language, style, dialogue structure of the age to which it belongs. • Learn value through literary works.
	(G3) HIN - 361 – Essay and Hindi Grammer	<ul style="list-style-type: none"> • Get introduced to the Minor genres such as Essay. • Use literature to develop their social and moral sense in life. • Develop knowledge of literary forms.
	(S3) HIN - 353 – Hindi Sahitya Ka Itihas	<ul style="list-style-type: none"> • Hindi literature which acquainted them to the correct usage language. • Use the Literature to develop their social and moral sense in life. • Study the socio-cultural & political background of Adikal to Ritikal.
	(S3) HIN - 363 – Hindi Sahitya Ka Itihas	<ul style="list-style-type: none"> • Study the socio-cultural & political background from Adhunik Kal. • Know the brief literature in same period. • Know the various literary form in same period. • Know the importance of language.
	(S4) HIN-354 – Bhasha Vidnyan Evam Rashtrabhasha Hindi Andolan ka Itihas	<ul style="list-style-type: none"> • Know the importance of language in human life. • Know the various methods to the study of language. • Understand the communication process and method. • Develop knowledge of Hindi Linguistics & Grammar.
	(S4) HIN-364 – Bhasha Vidnyan	<ul style="list-style-type: none"> • Know the concept of Linguistics. • Know the importance of language in human life. • Know the various methods to the study of language. • Understand the communication process and method.
T.Y.B.A. English	Compulsory English CENG- 351 & 361	<ul style="list-style-type: none"> • Students will master the skills of reading, writing, listening and speaking. • Students will be proficient in communication skills. • Students will develop into morally and ethically strong human beings. • Students will acquire conversational skills in daily life.
	General Paper III ENG- 351 & ENG- 361	<ul style="list-style-type: none"> • Students will know the origin, history, and development of English drama. • Students will develop the ability to critically appreciate dramas. • Students will gain knowledge of the socio-cultural milieu of the various phases of development of English drama. • Students will gain knowledge about various trends and movements in English drama during different literary periods.
	Special Paper - III Eng. 352 & 362	<ul style="list-style-type: none"> • Students will be acquainted with the growth of Indian Drama and Novel in English during the 20th Century. • Students will be able enough to evaluate, analyze, appreciate and criticize the prescribed Novel and Drama. • The socio-political, cultural background along with the literary movements of the country will be known to students. • Students will understand the developments in American Poetry and Novel.
	Special Paper – IV Eng. 353 & 363	<ul style="list-style-type: none"> • Students will be introduced with the properties and functions of language. • Phonological competence will be inculcated amongst the students. • Students will have better understanding of the English grammatical forms and functions. • Students will get an acquaintance with morphological concepts and processes.

		<ul style="list-style-type: none"> • Students will have an introductory information of the basic concepts from syntax and semantics.
T.Y.B.A Economics	Indian Economy Since-1980	<ul style="list-style-type: none"> • Introduce of The structure of Indian Financial system • Identify of the Functions of SEBI. • Classify of the Progress of Banking since Nationalization. • Identify the Function of RBI. • Introduce of the compositions of India s foreign Trade. • Describe of the import substitution. • Introduce the concept of LPG. • Classify of the Effects of Globalization on Indian Economy.
	Indian Economy Since- 1980	<ul style="list-style-type: none"> • Identify of the Functions of Finance and planning commission. • Classify of the Financial conflict Between centre and state. • Describe of the Tax Revenue and State Government. • Introduce of the problem of black money in India. • Classify of the Trends in central and state Government expenditure. • Identify of the Effects of public expenditure. • Describe of the sources of public Debt. • Classify of the Effects of Deficit finance
	Public Finance And Polices	<ul style="list-style-type: none"> • Describe of the Meaning Nature and scope Public finance. • Classify of the Role of public finance and development Economy. • Identify of the Kind of Tax Direct and indirect Tax Service Tax and VAT MOD VAT. • Introduce The Benefit Approach. • Understand of the Ability to Pay Approach. • Understanding of the Needs of Government Intervention. • Classify of the Tools of Government Intervention.
	Public finance And Policies	<ul style="list-style-type: none"> • Describe of the Meaning Principal of public expenditure. • Introduce of the Revenue and capital expenditure. • Present the Burdern of public Debt. • Classify of the Role of public debt in Development Economies. • Introduce the Instrument of Fiscal policy. • Classify of the Role of Fiscal policy in developing countries. • Describe of the Deficit financing. • Identify of the Role of Budgetary policy In Economic development
	International Trade And Practices-I	<ul style="list-style-type: none"> • Introduce the International Trade and Economic development. • Describe of the Theories of international Trade. • Classify of the Trade policy and Free trade and protection policy. • Introduce of the Tariffs Meaning and Classification. • Classify of the Balance of trade and Balance of payment. • Classify of the Equilibrium and Disequilibrium of Balance of payment. • Describe of the Foreign exchange Rate • Classify of the Methods of Exchange Control.
	International Trade And Practices-I -II	<ul style="list-style-type: none"> • Describe of the International Capital Movement. • Introduce of the portfolio Investment. • Identify of the Role of MNCs in developing countries. • Introduce the International Monetary fund. • Identify of the World Trade Organization Functions.

		<ul style="list-style-type: none"> • Introduce of the BRICS Thought and Origin. • Describe of the Devaluation meaning and Objectives. • Classify of the Convertibility of Rupee Partial and Full convertibility. • Identify of the General Features of Eurocurrency Market. • Introduce of the New Currency of European Union.
	Modern Banking & Indian Financial Market	<ul style="list-style-type: none"> • Introduce of Banking- Evolution and Development of Banking, meaning and Definition of Banking • Understand the Process of account opening, operating and closing of Account. • Classify of the Relation between bankers and Consumers • Identify the Know your Customer (KYC) • Identify the Customer Credit Assessment • Understanding of Role, functions of Technology in Banking and Computerization in Banking • Understanding of Electronic fund Transfer, Electronic clearing service, Real time Gross Settlement system, National Electronic fund Transfer, National Settlement System, E- parches / E-money, fund Transfer at point of sale. • Understanding of Automatic machine in Banking Services- Automatic Teller Machine, Cash Deposit Machine, Cheque Deposit Machine, Passbook Printing Machine, Note and Coin Counting Machine. • Identify of the Payment Cards – Debit Card, Credit Card, Virtual Card • Identify of the Modern Banking Services - Tele Banking, Internet Banking, Mobile Banking, Core Banking, Virtual Banking, Insurance, Demat account. • Classify of the Banking Code and Security- IFSC code, MICR code, PIN, OTP, CVV, Fund Transfer App (BHIM and Other) • Identify of Precaution in using Technology in Banking.
	Sec -4 Eco-364 Indian Financial Market	<ul style="list-style-type: none"> • Understand of Functions of Financial system in India. • Introduce of the Progress of Commercial Banking in India. • Describe of Development Banking & Financial Institution, Non-Banking Financial Institution in India. • Identify of Banking sector Reform in India. • Describe of the Money market – Meaning, features, Objectives, Importance and Defects of Money Market • Understand of the Constituents of Money Market. • Introduce of Capital market- Meaning, Features, Objectives, Role & Defects of Capital Market. • Identify of the Mutual funds and discount and finance house of India (DHFI) • Introduce of Security Market • Understand of the Participatory Notes (PNs) and Short Selling • Identify the Financial regulation and security Exchange Board of India (SEBI).
	GE 1 (A) Eco-355 Indian Economic Environment- I	<ul style="list-style-type: none"> • Describe of the Business- Meaning, Nature, Classification, Features, Objectives and limitations of Business • Understanding the Environment – Meaning, Steps of Environmental Analysis • Classify the Types of Business Environment. • Identify the Economic role of Government in Economic Environment of Business, Role of a BusinessEconomist.

		<ul style="list-style-type: none"> • Identify of the Business Environment in India • Introduce the Role of Agriculture in Economic Development (Reference to Indian Economy). • Describe of the Business Directly Dependent on Agriculture – The Agro- based Industry • Identify the Indian Agricultural Policy - An Overview.. • Understand of Infrastructure – Meaning, Characteristics, Importance for Business • Introduce the Transport and Communication Services • Identify the Role of Industry in India’s Economic Development • Identify of Some Problem of Industrial development in India • Introduce of New Industrial Policy- .1991 • Describe of the Privatization and Disinvestment – Meaning, and Rationale of Privatization, Evaluation of Privatization policy in India, Disinvestment in India • Introduce the Mergers and Acquisitions- Meaning, Types of objectives of merger and takeover
	GE 1 (B) ECO-365 Indian Economic Environment- II	<ul style="list-style-type: none"> • Describe the Characteristics of Indian Labour and Employment, Working conditions of Labour... • Classify the Social Security in Indian and Trade Union. • Identify of Industrial Dispute - Meaning, causes, Dispute in India, Measures Solve Industrial Dispute • Understand the Industrial Sickness - Meaning, size, causes, Consequences, Remedial Measures • Introduce the Provision of Companies act -2013, Revival and Rehabilitation of sick Companies • Introduce of the Insolvency and Bankruptcy code 2016 • Understand of the consequences of intuition, Anti- inflationary policy of the Government. Characteristics of Money Market • Classify of the Money Market – Unorganized and Organized sector in Indian Money Market, • Identify of Capital Market – Meaning, Structure and in Role of Capital market in Indian Economy. Growth of Capital Market in India, Reforms in Capital market • Identify the Stock Market – Definition, Functions, SEBI • Describe and classify the Foreign Capital – Needs and components of foreign Capital, Foreign Investment (Meaning, Types, advantage and disadvantage, Inflow and policy of Government) • Identify the Globalization and WTO • Understanding of Fiscal Policy – Objectives, The fiscal imbalance and new fiscal Approach, fiscal Responsibility • Introduce the Tax Structure – Direct and Indirect Taxes (GST) • Introduce of Exim Policy – (Recent) • Describe the Monetary Policy- Credit control by BI, Recent Monetary policy of RBI. • Identify of the National Manufacturing policy, make in India. • Classify of FERA- and FEMA
T.Y.B.A Geography	Environmental Geography (S3)	<ul style="list-style-type: none"> • Write down the definition and nature and scope of environmental geography.

		<ul style="list-style-type: none"> • Describe the concept and structure of ecosystem & Nutrient cycling. • Write down the problems of environmental pollution. • Identify the conservation resources. • Identify the about environmental hazards and management. • Write down the various environmental protection acts.
	Remote Sensing & GIS (S3)	<ul style="list-style-type: none"> • Describe the History of Remote Sensing • Identify the Arial Photographs and Satellite Imageries • Acquire Knowledge about Indian Remote sensing. • Which are the components and function of GIS • Use of GIS in various fields. • Make use GIS & GPS software.
	Population Geography (G3)	<ul style="list-style-type: none"> • Write down the history of population in world • Classify the population data • Describe distribution and density of population. • Identify the characteristics population theories Malthus theory and Demographical transition theory. • Investigate Current Issues and Problems in India
	Political Geography (G3)	<ul style="list-style-type: none"> • Describe the history, nature and scope of Political Geography. • Essay on Evolution of states & nations. • Describe Geopolitical theories. • Investigate Problems and disputes in India
T.Y.B.A. History	History Of Modern World (1789-1900)	<ul style="list-style-type: none"> • Learn about the causes and Effects of the French revolution. • Understand the Napoleons internal reforms. • Understand the factors responsible for the end of monarchy in France. • Describe the various phase of nationalism in Europe • Explain the causes and Effects of industrial revolution. • Understand the process of Modernization of Japan.
	History Of Modern World (1901-1945)	<ul style="list-style-type: none"> • Understand the importance Balkan Nationalism in Modern World. • Evaluate the work of Dr. SUN-YET-SEN in China. • Evaluate the causes and Effects Russian revolution. • Evaluate the work of The League of Nation. • Understand the fascism, Nazism and the rise of dictatorship in Europe. • Explain the aftermaths of the World War Second.
	G301- Global Security	<ul style="list-style-type: none"> • Students understood the meaning and concept of Globalization and Global security. • Students were aware of meaning, concept, causes and effects of new world order after cold war. • Students were aware about the aims, objectives, functioning and relevance of various regional organisations inworld. • Students understood the problems due to WMD, NMD and proliferation of small arms to International peaceand security. • Students were aware about various global issues like environmental security, organized crime, technology andsecurity, global crisis, human health.
T.Y.B.A Political Science	POL-351-(A-G-3)- Introduction to Personnel Administration and Management	<ul style="list-style-type: none"> • To know the Policy formation in India. • To know the characteristics of Civil services. • Understand Methods of Recruitment of Civil services in India. • To know the Functions of civil services. • To know the methods of Determining Qualifications of civil services.

	POL-361-(A-G-3)-Introduction of Personnel Administration and Management.	<ul style="list-style-type: none"> • Understands the meaning and types of Management. • To understand the importance of leadership. • To know the policy formation and co-ordination in organization. • To know the importance of co-ordination. • Understand new trends in Management.
T.Y.B.A Psychology	Modern Applied Psychology PSY-351-A & Applied Psychology and Human Life PSY-361-A(G3)	<ul style="list-style-type: none"> • Describe applied fields of psychology. • Identify importance of personal control, community relationship and decision making. • State importance of relationship between environment and human being. • Explain importance of relationship between theoretical and practical psychological principles. • Function effectively and confidently in wide range of society.
	Research Methodology in Behavioral Science PSY-352-A & Experimental Psychology and Test Measurement PSY-362-A(S3)	<ul style="list-style-type: none"> • Perform scientific research in psychology • Describe general and special abilities with respect to psychological testing.
TYBA	SOCG3: Indian society Structure and change	<ul style="list-style-type: none"> • To study Indian unity and diversity • To introduce students about tribal society • To introduce the comparative study about rural and urban society • To introduce indigenous traditions, knowledge and culture to students
MA I (P-I)	HIN-1110 – General Level – Katha Sahitya	<ul style="list-style-type: none"> • Get information about the Novel and Story Literature. • Get information about Medieval Hindi Literature forms. • Study social change effect on Medieval Hindi literature.
(P-I)	HIN-1210 – General Level – Kathetar Gadya Sahitya	<ul style="list-style-type: none"> • Get introduction of Hindi authors. • Get information about the autobiography, essay and drama literature. • Get information about Hindi Literature forms.
(P-II)	HIN-1120 – Spl. Level – Adikalin evam MadhyayuginKavya.	<ul style="list-style-type: none"> • Get Information about Saint Poet & their Literature. • Get information about Hindi’s Historical Literature forms. • Get information about well-known poet Vidyapati & Sant Tulsidas.
(P-II)	HIN-1220 – Spl. Level : Ritikalin kavya	<ul style="list-style-type: none"> • Know the Medieval Hindi Literature. • Get information about Hindi’s Historical Literature forms. • Get information about well-known poet Bihari, Ghananand & Bhushan.
(P-III)	HIN-1130 – Spl. Level : Bhartiya kavyashashtra kesiddhant Evam Waad	<ul style="list-style-type: none"> • Know Indian Poetry structure in ancient era. • Know the importance of Criticism. • Increase vision regarding literary values • Know the concept and process of literature.
(P-III)	HIN-1230 – Spl Level : Pashchatya kavyashashtra evamWaad	<ul style="list-style-type: none"> • Know Western Poetry structure in ancient and modern era. • Know the importance of criticism. • Increase vision regarding literary values • Know the concept and process of literature.
(P-IV)	HIN-1140 Spl. Level : Atmakatha	<ul style="list-style-type: none"> • Get information about well-known female writers in Hindi. • Know the importance of feminism. • Know the gender equality among literature. • Know the literary contribution of female writers. • Know the characteristics of feminist literature.
(P-IV)	HIN-1240 Spl. Level – Dalit Vimarsh	<ul style="list-style-type: none"> • Know the History of Dalit Movement in India. • Study of literature in Dalit approach.

		<ul style="list-style-type: none"> • Get information of Dalit agitation (India & World)
MA II (P-V)	HIN-2310 – Gen Level : Poetry	<ul style="list-style-type: none"> • Get acquainted with the language, poetic style, diction of the age to which it belongs. • Learn values through literary works.
(P-V)	HIN-2410 – Gen Level : Poetic Drama, New Poetry andGazal	<ul style="list-style-type: none"> • Know the new trends, study of poetic Drama, New Poetry and Gazal literature in new era. • Learn Values through literary work. • Get acquainted with the poetic style, diction of the age to which it belongs.
(P-VI)	HIN-2320 – Bhasha Vigyan	<ul style="list-style-type: none"> • Understand the communication process and method. • Know the importance of language in human life. • Know various methods of the study of language.
(P-VI)	HIN-2420 – Bhashavidnyan	<ul style="list-style-type: none"> • Know the importance of language in human life. • Know various methods of the study of language. • Understand the communication process and method.
(P-VII)	HIN-2330 – Spl. Level : Hindi Sahitya Ka Itihas	<ul style="list-style-type: none"> • Study the Historical Development of Hindi Literature. • Know the brief literature in same period. • Know the various literary form in same period.
(P-VII)	HIN-2430 – Hindi Sahitya ka aadhunik Itihas	<ul style="list-style-type: none"> • Study the socio-cultural & political background from 1900 till date. • Know the brief literature in same period. • Know the various literary from in same period.
(P-VIII)	HIN-2340 – Spl. Level Opt. : Loksahitya	<ul style="list-style-type: none"> • Know the co-relation between folk literature and other branches. • Know the concept of folk literature. • Know the tradition of folk literature in India. • Know the new trends in the study of folk literature in new era.
(P-VIII)	HIN-2440 – Spl. Level Opt. : Prayojanmulak Hindi	<ul style="list-style-type: none"> • Understand the communication process and method. • Get introduced to the media writing . • Get introduced to the various aspects of Devenagari script.
M.A. Economics	Introduction of The Advanced Micro Economics: I	<ul style="list-style-type: none"> • Classify of the Difference between Cardinal & Ordinal Analysis Of Utility • Analysis of the Applicability of Indifference Curve • Identify of the Expected Utility and Uncertainty • Understanding of the Technology & Inputs • Introduced of The Production Function • Identify of the Technical Progress and Production Function • Explain of the Theory Of Perfect Competition • Explain of The Theory Of Monopolistic Competition
	Introduction of The Advanced Micro Economics: I	<ul style="list-style-type: none"> • Introduced of the Cournot & Bertrand • Identify of the Oligopoly Models Collusive • Explain of The Principal Agent Theory of the Firm • Explain of the Game Theory Of Oligopoly Market • Describe of the Modern Theory of Rent. • Explain of the Time Preference Theory • Analysis of the General Equilibrium • Identify of The Market Failures
M.A.I	Modern Public Economics	<ul style="list-style-type: none"> • Introduced of the Perfect Competition Market • Understanding of the Market Failures Of Meaning & Causes • Introduced of the Monopoly and Imperfect Competition, • Classify of the Positive Externalities and Negative Externalities • Identify of the Social Goals before Government • Understanding of the Maintaining Regional Imbalances

		<ul style="list-style-type: none"> • Explain of the Government Failures : Meaning • Introduced of the Public-Private Partnership
	Modern Public Economics	<ul style="list-style-type: none"> • Describe of the Fiscal Federalism in India • Introduced of the GST • Classify of the Structure Of Taxation in India • Describe of the The Problem of Double Taxation • Identify of the Public Expenditure With Reference To India • Describe of the Growth and Development • Explain of the Budgets: Types and Forms • Introduced of the Good Governance And India
	Statistics For Economics	<ul style="list-style-type: none"> • Introduced of the Statistics Meaning & Scope • Describe of the Graphic Representation Of Data • Identify of the Central Tendency or Averages • Classify of the Types Of Measures Of Central Tendency • Introduced of the Quartile Deviation • Analysis of the Correlation • Understanding of the Linear Regression • Identify of the Fitting Trend Curves
	Research Methodology For Economics	<ul style="list-style-type: none"> • Explain of the Economic Research Objectives • Describe of The Research Problem • Analysis of the Sources Of Data • Classify of the Types of Sampling • Explain of the Questionnaire Method • Describe of the Problem of Measurement In Economic Research • Identify of the Index Numbers • Classify of the Types Of Research Reports
	Economics Of Agriculture & Rural Development: I	<ul style="list-style-type: none"> • Introduced of the Organic Farming • Understanding of the Industrial Agriculture • Describe of the Nature Of India's Agriculture • Identify of the Agricultural Labor • Describe of the Evolution of Price Policy in India • Describe of the Agriculture Subsidies in India • Explain of the Agricultural Finance Importance • Describe of the Role of MNCs and Agriculture
	Economics Of Agriculture & Rural Development	<ul style="list-style-type: none"> • Describe of the Nature Of India 's Agriculture • Introduced of the Cost Function • Identify of the Technology in Agriculture. Meaning, • Introduced of the Green House Technology. • Identify of the Industrial livestock production • Describe of the Current State of the India 's Animal Genetic Resources • Identify of the The Agreement on Agriculture • Describe of the The Present Negotiation: Doha Round
M.A. II	Modern Monetary Economics - I	<ul style="list-style-type: none"> • Describe of the Monetary Economics - Meaning, Nature, Scope • Classify of the The circular Flow of Income In An open Economy • Explain of the Say's Law Of Market • Describe of the The Quantity Theory of Money • Identify of the Principle Of Effective Demand

		<ul style="list-style-type: none"> • Introduced of the High Powered Money • Understanding of the Fridman's Quantity Theory Of Money
	Modern Monetary Economics - II	<ul style="list-style-type: none"> • Explain of the IS-LM Model • Introduced Fiscal Policies • Introduced of the Inflation • Classify of the Structural Theory of Inflation • Analysis of the Theories of Business Cycles • Understanding of the Floating Exchange Rates
	Models Of Economic Growth	<ul style="list-style-type: none"> • Describe of the Some basic concepts in economic growth • Explain of the The Theory of social Dualism. • Describe of the Keynes Theory and under developed countries • Identify of the R.M.solows Model Describe of the Keynes Theory and under developed countries • Identify of the R.M.solows Model
	International Economics - I	<ul style="list-style-type: none"> • Describe of the International Trade - features and importance • Understanding of the Classical Theories – Adamsmith, • Identify of the Trade as an Engine of economic growth • Explain of the Terms of trade – Importance • Describe of the political economy of protection. • Identify of the SAARC • Identify of the Multilateralism and WTO
	International Economics - II	<ul style="list-style-type: none"> • Describe of the Problems of India's international debt. • Introduced of the Global recession – meaning • Explain of the Functions of GATT • Understanding of the Word bank – objectives and functions • Understanding of the FDI- meaning, effects. • Explain of the MNCs- Role • Describe of the Purchasing power parity theory.
	Modern Banking & Financial Markets In India - I	<ul style="list-style-type: none"> • Structure Of Banking System In India • Role Of Commercial Banks in Economic Development Of India • Co-Operative Banking Systems • N.A.B.A.R.D. Functions • Non-Banking Financial Institutions • EXIM Bank • Role Of RBI In The Development • Money market
	Describe Of The Modern Banking & Financial MarketsIn India - II	<ul style="list-style-type: none"> • Classify of the Structure of Financial System In India. • Understanding of the Call Money Market Features • Identify of the Features of Indian Capital Market • Explain of the S.E.B.I. Functions • Describe of the Micro Finance Delivery Model In India • Identify of the Core Banking, Internet Banking & Mobile Banking • Describe of the Globalization Of Indian Financial System • Identify of the IMF and Indian Economy
M.A I Psychology	Approaches and Aspects of Personality PSY-111 & Motivation and	<ul style="list-style-type: none"> • Introduce students the basic aspects of personality. • Help students to understand the development of personality. • Provide comprehensive overview of the major theories of motivation and emotion

	Emotion PSY-121	<ul style="list-style-type: none"> • Create awareness about the role of biological factors in motivation and emotion. • Emphasize the importance of positive and negative emotions in human life.
	Cognitive psychology PSY112 & Cognitive Phenomenon PSY-122	<ul style="list-style-type: none"> • Introduce the nature and basic processes of cognitive psychology to students. • Acquaint the students with the application of cognitive process in day-to-day life
	Advanced Psychological testing PSY-113 & Statistics in Psychology PSY-123	<ul style="list-style-type: none"> • Acquaint student with the characteristics of standardized tests. • Familiarize the students with psychometric theories and principles of test construction. • Develop occupational skills in student related with psychological testing. To introduce fundamental concepts about statistics. • Introduce statistical application for Psychology. • Introduce multivariate methods and computer applications to statistics.
	Psychology practical (Tests) PSY-114 & Psychology Practical (Experiments) PSY-124	<ul style="list-style-type: none"> • Create interest in Psychological Phenomenon. • Develop awareness of Psychological tools, test and techniques. • Develop understanding of evaluation and prediction of specific aspects of human behavior. • Know applying psychological parameters for Counseling and guidance. • Acquaint the students with Skills of scientific techniques of conducting experiments in psychology.
M.A II	Health Issues and Wellbeing & Health Issues and Modern Life	<ul style="list-style-type: none"> • Acquaint the students with the psychological aspect of health. • Familiarize the students with the nature and need of health psychology
	Research Methodology in Psychology & Dissertation	<ul style="list-style-type: none"> • Understand the basic research concepts • Acquaint students the steps in research process • Familiarize the students with basic terminology of advanced research techniques
	Psychological disorder and Abnormal Psychology	<ul style="list-style-type: none"> • Acquaint students with various manifestations of psychopathology. • Familiarizing students with various assessment approaches and tools used in clinical psychology domains. • Introduce students to the different perspectives and models regarding the causation of mental illness and dysfunctional behaviour and to highlight the contribution of these approaches to the pathogenesis of a widerange of mental and behavioural disorders. • Impart knowledge and skills required for diagnosis of psychopathological conditions. • Acquaint students to select, administer, score and interpret various types of psychological tools. • Understanding the advances and applications of assessment
	Psycho-diagnostics & Psycho-diagnostic theory and Therapies	<ul style="list-style-type: none"> • Understand the Psycho-diagnostic procedures • Know the personality theories essential for understanding Psychopathology and Psychotherapies • Familiarize the various Psychotherapeutic procedures • Acquaints students to select, administer, score and interpret various types of psychological tests • Equip students with generic skills for counseling and psychotherapy. Psycho-diagnostic procedures

		<ul style="list-style-type: none"> • Impart skills through workshops, case discussions, role plays, observations • Acquaints students for planning and conducting interventions for variety of mental health problems, particular therapies and special conditions
M.A.-I Sociology	DSC-01 SOC411: Indian Society: Structure and Change	<ul style="list-style-type: none"> • To study Indian unity and diversity. • Student Understand necessity fundamental values and central themes of Hindu society and culture. • Along with Hinduism, students will also notice the principles of Buddhism and Islam. • Students identify the various basic concept in Sanskritization, modernization and Globalization.
	DSC- 05 SOC421: Social Thinkers	<ul style="list-style-type: none"> • Students will able to understand historical background of Sociology. • Students will able to understand Marxim in Indian Society. • Students will able to understand historical background of Caste System in india. • Students will able to understand Basic concept of social change.
	DSC-02 SOC412 : Rural Sociology	<ul style="list-style-type: none"> • To understand the concept and models of rural sociology. • Students will gain in knowledge about rural life through rural sociology. • Qualitative approach to Research. And Promotes towards research •
	DSC-06 SOC422 - Urban Sociology	<ul style="list-style-type: none"> • Students understood the basic background of urban sociology. • Students understood the structure of urban society. • Student has to be sensitized on urban dimensions of society, its social structure and social process in India.
	DSC-03 SOC413- Industry And Society in India	<ul style="list-style-type: none"> • Students develop and ability to identify –Industrial disputes. • Student will be able to understand social Relations in Industry. • To expose the PG students with the knowledge of industrialization Process and work
	DSC- 07 SOC423: Social Issues In Contemporary Indian Society	<ul style="list-style-type: none"> • Students will able to understood Meaning, nature and Cause of Social Problem. • Students will able to know about Structural problems in India. • Students will be aware about Female feticide and Sexual Harassment Problems. • Students will able to understood various National Problems.
	DSC-04 SOC414 Political Sociology	<ul style="list-style-type: none"> • Interrupt the basic liberal approaches towards the state. • Explain the historical transformation of the liberal state demonstrate the relationship between democracy and the liberal state analyses the marxist criticism of the liberal state. • Explain the transformation in the state and power relation together with the globalization
	DSC – 08 SOC424 Political Sociology	<ul style="list-style-type: none"> • Students understood Indian political bureaucracy. • Students able to own contribution in political process. • Student defined various role of social components in the Indian political process.
	DSE 1 SOC415(B) Social Demography	<ul style="list-style-type: none"> • Understood population theory and policy • Understand the Challenges of Population growth. • This course provides an understand in interrelation between population and society • Understand the concept of fertility and migration in the demographic process

	DSE-02 SOC425(B) Globalization and Society	<ul style="list-style-type: none"> • To understand the historical and social contexts of globalization.. • To generate debate among the students on the advantages and disadvantages of globalization. • Students will know about the challenges facing the Indian society due to globalization.
	SOC416 Methodology of Social Research	<ul style="list-style-type: none"> • Students are able to understand Nature of scientific methods in social science Research. • Quantitative and qualitative approach to Research and promotes towards research. • From the course students will able learn about meaning, scope, types and to Significance of Social Research. • Acquaint about sampling and testing of hypothesis.
	OJTs/Int. SOC426 - On job Training Internship	<ul style="list-style-type: none"> • Student should be aware of social problem • Providing training in various subjects for holistic development of students. • To make students self-reliant.
M.A.-II	SOC CC – 301- Sociology of Development (core)	<ul style="list-style-type: none"> • Students will be understand the basic concepts, facts and theories of social change. • Students will be analyze the process of social change and development. • Students will be able to evaluate the theories and path of development.
	SOC CC – 401 – Dissertation (core)	<ul style="list-style-type: none"> • Understanding and defining specific research problem • Application of subject knowledge to the frame objectives of the research proposal • Identification and planning of research question • Acquisition of knowledge and methodology of research • Preparation of research design for the proposed research
	SOC CC – 302 – Methodology of Social Research – I	<ul style="list-style-type: none"> • Students are able to understand Nature of scientific methods in social science Research. • Quantitative and qualitative approach to Research and promotes towards research. • From the course students will able learn about meaning, scope, types and to Significance of Social Research. • Acquaint about sampling and testing of hypothesis.
	SOC CC – 402 - Methodology of Social Research – II (core)	<ul style="list-style-type: none"> • Students are able to understand Nature of scientific methods in social science Research. • Quantitative and qualitative approach to Research and promotes towards research. • From the course students will able learn about meaning, scope, types and to Significance of Social Research. • Acquaint about sampling and testing of hypothesis.
	SOC CC – 303 – Gender and Society (core)	<ul style="list-style-type: none"> • Students will be known overall situation of women under the system of patriarchy in India. • Student will be analyzing relation between women’s problems, status of women in Indian social system. • Students will be able to creating gender equality approach
	SOC CC – 403 – Sociology of Marginalized Communities (core)	<ul style="list-style-type: none"> • Students will recognize the significance of marginalized communities in India.

		<ul style="list-style-type: none"> • They will develop awareness of the issues and challenges faced by these communities. • The course will enable students to analyze the position of marginalized groups in the context of globalization and new economic policies.
	SOC DSE – 304 (A) Criminology (Skill based/Elective)	<ul style="list-style-type: none"> • Students will be able to understand the criminology. • Students will be able to understand the concept of crimes. • Students will be able to understand the cyber Crime. • Students will be able to understand the crime control.
	DSE – 404 (B) – Sociology of Maharashtra (Skill based/Elective)	<ul style="list-style-type: none"> • The course will provide students with an in-depth understanding of Maharashtra's society, with a focus on how societies evolve over time. • It will help students comprehend the regional developmental imbalances in Maharashtra. • Students will gain insights into various social movements within the state. •
Commerce		
FY BCOM SEM - I	Computing Skills	<ul style="list-style-type: none"> • Acquaint to Microsoft office 2013 word, PowerPoint • Understanding the Microsoft office 2013 –excel • Using the Tally- Computerized Accounting • Understand introduce to tally ERP 9 Release 5 • Understanding of the voucher entry • How to Maintain trial balance and final account
	Modern Office Management	<ul style="list-style-type: none"> • Acquaint to Modern Office ManagementSS • Understand the Concept of Traditional & Modern Concept of Office & Changing Office View Past Present &Future • Effective Impact of Management Techniques • Selection of Office Layout • Understanding of the Concept System & Procedure, Describe the Flow of Work • How to Maintain Paperless Office • Understanding the Importance of Office Environment & Safety Remedies
	Computing Management	<ul style="list-style-type: none"> • Student learn Accounting using tally ERP 9 • Student understanding creation of stock items • Students learn how to make bill wise details • Understanding the key elements • Understanding the hoe to use reporting and Printing • Understanding the concept key Activities
	Retail Management	<ul style="list-style-type: none"> • Acquaint to Retail Management • Student Introduce to Retail & Retailing • Understanding to Retail Framework • Identify of the Trends of retailers scenario of Indian and global • Understanding of the Concept of traditional and non-traditional retail format • Describe the economics of retailing ,the MRP Regime in India
	Marketing & Advertising	<ul style="list-style-type: none"> • Student understanding create awareness about marketing • Student acquaint basis concept of marketing

		<ul style="list-style-type: none"> • Student know establish link between business & marketing • Student know relevance of marketing on modern competitive worlds • Student develop an analytical to plan for various marketing strategy
		<ul style="list-style-type: none"> •
FYBCom (G)	MAR-102 (B) Optional Marathi- Pravas varnan	<ul style="list-style-type: none"> • The students develop interest in literature. • The students use their moral and social sense in life. • The students are able to make special use of language for their expression.
FYBCom (G)	HIN-102 Optional Hindi	<ul style="list-style-type: none"> • Develop interest in literature. • Use their moral and social sense in life. • Make special use of language for their expression.
F.Y.B.Com.	Core Elective English for Business	<ul style="list-style-type: none"> • Students will be familiar with the basics of the communication theory. • Various skills of communication – L S R W skill, will be imbibed amongst the Students. • Students will have the ability to work in a team. • Other soft skills like problem – solving skills, Leadership Skills, • Strong Work, ethics will have roots in the student’s personality. • Students will have linguistic competencies through various grammatical and vocabulary exercises.
F.Y.B.Com. SEM-II	Quantitative Techniques	<ul style="list-style-type: none"> • To understand the Meaning of Quantitative Techniques • To understand the Functions and their applications • Know permutation and combinations • To know mean, mode and median • To understand measure of dispersion
FYBCom SEM - II	Modern Office Management	<ul style="list-style-type: none"> • Understanding of the Duties & Responsibilities of Manager in Organization • Identified the Office Services • Describe of the Different type of Appliances & Machines Use in Office • How to Use Stationary in the Office • Understanding of the Secretarial Procedure Qualities , Qualification of Secretary • Classified of the Types of Office
	Marketing & Advertising	<ul style="list-style-type: none"> • Student Know the create awareness about advertising • Student understand basic concept & nature of advertising • Student know the relevance of advertising on modern competitive worlds • Students understanding the develop an analytical ability to plan for various advertising strategies
(G)	MAR-202 (B) Optional Marathi- Upyojit Marathi	<ul style="list-style-type: none"> • The students are able to make accurate use of Marathi language in their respective fields. • The students could communicate effectively in their various business situations. • The verbal and non-verbal skills of communication are developed.
(G)	HIN - 202 Optional Hindi	<ul style="list-style-type: none"> • Make accurate use of Hindi language in their respective fields. • Communicate effectively in various business situations. • The verbal and non-verbal skills of communication are developed
F.Y.B.Com.	AEC I	<ul style="list-style-type: none"> • Students will know few famous entrepreneurs, inspiring them to know more celebrity – biographies from the world of commerce, trade & Industry.

		<ul style="list-style-type: none"> • Students will develop English reading and linguistic comprehension. • Students will Improve professional and entrepreneurial attitude. 4. Students will be acquainted with special challenges of starting new ventures. • Students will be introduced with the qualities of the successful entrepreneurs.
SYB COM SEM - III	Business Entrepreneurship	<ul style="list-style-type: none"> • Student understand the concept of entrepreneurship • Student know the qualities of entrepreneurship • Student know about role of entrepreneurship inducement measure
	Retail Management	<ul style="list-style-type: none"> • Understanding the role of marketing mix ,retail communication mix • Identified the retile Merchandising • Describe the Mall management ,reasons for failure of some malls in India • Classify the types of franchising • Describe the Application of information technology, future trends, smart cards and E-cash • Understanding retail Consumers
	Business Management	<ul style="list-style-type: none"> • Student understanding The concept of Management & scope of Management • Student acquaint with modern mgt practices • Student know latest trends in Management
	Business Tax & Law	<ul style="list-style-type: none"> • Student learn the Indian contract act 1872 • Student understanding the Indian sales of goods act 1930 • Students learn crossing and negotiable instrument act ,1881 • Understanding the Indian trade union act ,1926 • Understanding the information technology act -2000 • Understanding the patent act 2002
SYB COM SEM - SIV	Business Management	<ul style="list-style-type: none"> • Student Know the develop leadership skills & communication skills • Student understand various functions of Management
	Business Tax & Law	<ul style="list-style-type: none"> • Student understanding the Indian partnership act, 1932 • Student understanding the industrial dispute act, 1947 • Student understanding the factories act ,1948 • Student understanding the consumer protection act ,1986 • Environment protection act,1986 • Understood the goods & service tax act (GST), 2017
TY BCOM SEM - V	Human Resource Management	<ul style="list-style-type: none"> • Student understanding the concept of HRM ,human resource planning,& job analysis & designing • Student understanding the recruitment ,selection, placement & induction
TY BCOM SEM - VI	Human Resource Management	<ul style="list-style-type: none"> • Student understanding the employee training, grievances, management development • Student understanding the employee discipline, performance appraisal • Student know the resent trends in HRM

FY MCOM SEM - I	Strategic Management	<ul style="list-style-type: none"> • Familiarize with the Strategic Management Overview. • Understand the concept of environmental appraisal • Learn the SWOT Technique and factors analysis • Understand the strategy implementation concept. • Learn the Strategy evaluation and control technique.
	Research Methodology in Commerce & Management	<p>the knowledge about research concept of research methodology is helpful for decision making in business understand the methodology of research and research report point about sampling and testing of hypothesis</p>
	Human Resource Management	<ul style="list-style-type: none"> • Understand the importance of HRM and its environment. • Learn the role of ethics in HRM • Learn the theories of social science disciplines to work place issues • Acquiring the basic knowledge of HRM • Understand the importance of training and morale
	E- Commerce	<ul style="list-style-type: none"> • Acquaint to e-commerce basics • Classify e-commerce and e-business model with the relationship of transaction parties • Familiarize to e-enterprise and Understanding the governments support for cashless payments • Compare and Analyze the different monetary transactions. Awareness about digital transaction and security • Knowledgeable about e-business communication and its model • Analyzing website structure and webpage design
	Advance Accountancy	<ul style="list-style-type: none"> • Understand the advance aspects of accounting relating to company liquidation holding company and hirepurchase • Understand the accounting procedure for goods of small value under hire purchase transactions • Get the knowledge about the concept of value added accounting with the help of practical problems • Understand the method of presenting financial statement by insurance companies
FY MCOM SEM - II	Strategic Management	<ul style="list-style-type: none"> • Acquainting the comprehensive cases on various strategic situations based on application of strategic management. • Understand all the cases of strategic management for future technique
	Modern Management Practices	<ul style="list-style-type: none"> • Get the Overall knowledge about management practices • Understand the fundamental concept of management • Understand the principals, roles and decisions of management • Familiarize with the planning and Decision making techniques • Learn the concept of leadership and controlling process.
	Human Resource Management	<ul style="list-style-type: none"> • Understand the importance of HRM and its environment • Learn the role of ethics in HRM • Learn the theories of social science disciplines to work place issues

		<ul style="list-style-type: none"> • Acquiring the basic knowledge of HRM. • Understand the importance of training and morale
	E- Commerce	<ul style="list-style-type: none"> • Introducing to e-banking transactions • How to manage the electronic customer relationship management and understanding the needs forelectronic CRM • Understanding the role of e-security in online transaction • Get the overall internet marketing technique • Understanding the e-supply chain management process • Learning the technique of mobile commerce
SY MCOM SEM - III	Human Resource Management	<ul style="list-style-type: none"> • Develop industrial relations • Understand the value and importance of HRM • Get the knowledge of laws & how law affects the industry and labor. • Familize with the Mechanisms of industrial disputes and interventions to deal with employee & employerproblems
	Entrepreneurship Project Management	<ul style="list-style-type: none"> • The students with the challenge to start a new venture • Highlight the support system for entrepreneurship development • Inspiring to become an entrepreneur • Encouraging to become successful entrepreneur • Get the knowledge about Project appraisal and reporting
	Management Accounting	<ul style="list-style-type: none"> • Understand the concept, tools & techniques of management accounting • Analyze the financial statements of management accounting • CO3 – Understand ratio analysis and budget & budgetary control by solving practical Problems • Understand the applications of marginal costing and standard costing and variances with the help ofpractical problems
	Organization Behavior	<ul style="list-style-type: none"> • Understand the concept and operational skill relating to organization behavior • Get the knowledge about individual behavior in the organization • Develop the interest in group and group behavior • Acquiring the basic knowledge of motivation and leadership with the help of theories • Understand the power politics and conflict in the organization
	Advance Accountancy	<ul style="list-style-type: none"> • Knowledgeable about the auditing concept and other disciplines • Understand the advance aspect of accounting relating to audit • Acquaint the auditing in EDP environment • Understand the auditing and assurance standards • Getting the knowledge about human resource development audit
SY MCOM SEM - IV	Modern Retail Management	<ul style="list-style-type: none"> • Acquaint with the various concepts and theoretical aspect of retail management

		<ul style="list-style-type: none"> • Empowering with the most modern techniques and practices of retailing for employment opportunity • Familiarize with merchandise management and application of information technology in retail
	Human Resource Management	<ul style="list-style-type: none"> • Develop industrial relations • Understand the value and importance of HRM • Get the knowledge of laws & how law affects the industry and labor • Familiarize with the Mechanisms of industrial disputes and interventions to deal with employee-employer problems.
	Corporate Social Responsibility	<ul style="list-style-type: none"> • Understand the social issues at various concept • Acquaint with the Business Ethics concepts and self Dev. • Acquaint with the theoretical aspect of corporate social responsibility
	Information System for Business	<ul style="list-style-type: none"> • Familiarize with the theoretical aspect of information system • Understand transaction processing system in business areas. • Knowledgeable about the business risk and information system risk
	Advance Accountancy	<ul style="list-style-type: none"> • Acquaint the concept of tax audit and government audit • Understand the advance aspect of internal audit and bank audit • Knowledgeable about the audit of co-operative societies • Understand the audit of specialized units
Science		
F.Y.B.Sc.	Paper-I Bot. 101: Diversity of Lower Cryptogams	<ul style="list-style-type: none"> • Provide identification technique of microbes, Viruses, Bacteria, Algae and Fungi. • Understand the systems of classification of Microbes, Viruses, Bacteria, Algae and Fungi, and its interdisciplinary approaches. • Provide lab-based training in writing short species descriptions and illustration. • Recognize members of the major microbes, Viruses, Bacteria, Algae, Fungi and their medicinal, economic importance for human welfare.
	Paper II Bot. 102: Morphology of Angiosperms	<ul style="list-style-type: none"> • Students will be able to understand ground plant of angiospermic plant. • Students will be aware about vegetative characters of angiospermic plant. • Students will be aware about reproductive characters of angiospermic plant. • Students will be able to understand the modifications and functions of plant parts.
	Paper I Bot. 201: Paper I Diversity of Higher Cryptogams	<ul style="list-style-type: none"> • Student will be able to understand the basic knowledge of the subject. • To understand the basic structure and study the comparative characteristic of Bryophytes and Pteridophytes. • Also, to understand the structural similarities and differences among both the groups. • Student will be able to aware developmental stages of life cycle of higher cryptogamic plants. • To facilitate students for taking up and shaping a successful career in botany.
	Paper-II Bot. 202: Taxonomy of Angiosperms	<ul style="list-style-type: none"> • Students will understand angiospermic plants, causes of phenomenal succession and alternation of generation. • Understand the systems of classification of angiosperms, nomenclature and interdisciplinary approaches. <p>Provide lab-based training in writing short species descriptions and illustration.</p> <ul style="list-style-type: none"> • Recognize members of the major angiosperm families by identifying their

		<p>diagnostic features, economic and medicinal importance.</p> <ul style="list-style-type: none"> • Understand botanical gardens and herbarium technique
F.Y. B.Sc.	CH- 101: Physical and Inorganic Chemistry	<ul style="list-style-type: none"> • To understand specific and equivalent conductance with their inter relationship. • To understand cell constant and use of it to obtain specific and equivalent conductance. • To know Kohlrausch's law and application of it. • To understand the term Adsorption, its types like physical and chemical adsorption, Freundlich Adsorption Isotherm and Langmuir Adsorption Isotherm. • To understand atomic radius, ionic radius, covalent radius and Van der Waal radius. Variation of atomic size along the period and group. Explanation of some properties like Ionization Energy, Electron Affinity, Electronegativity • To understand of s- block Elements of alkali metals and Alkaline earth metals.
	CH-102: Organic and Inorganic Chemistry	<ul style="list-style-type: none"> • Learn the general properties of organic compounds, applications of organic compounds. • Gain the Knowledge of Common and IUPAC nomenclature of various type of organic compound. • Learn the alkane, alkene and alkyne by many organic reaction. • To learn haloalkanes and haloarenes. • To gain the Knowledge of preparations, reactions and properties of Alcohol, Ether and Epoxide. • Understand ionic product of water, Buffer solutions. • To understand VSEPR theory and shapes of covalent molecules.
	CH-103: Chemistry Practical	<ul style="list-style-type: none"> • To calibrate the apparatus like volumetric flask, pipette and burette. • To understand the determination of heat of solution, equivalent weight, surface tension etc. • To carry out qualitative analysis of acidic and basic radicals. • To learn the applications of types of titrations for various estimations • To learn to carry out quantitative analysis by gravimetric method • To learn carry out quantitative analysis by volumetric method
	CH-201: Physical and Inorganic Chemistry	<ul style="list-style-type: none"> • To understand various gas laws, Kinetic theory of gases, Chemical bonding or molecular geometry based on accepted models. • To learn to convert scientific equation in straight line to get physical parameter for slope and intercept. • To understand deviation of real gas from ideal behavior using compressibility factor. • To understand critical constant, Van der Waal's constant and relation between them. • To learn about spontaneous and non spontaneous process, Entropy concept and its significance. • To learn about metals and metallurgy, steps involved in extraction of metals. • To understand the Electronic structures, size of atoms and ions, ionization energy, metallic and nonmetallic of p block elements.
	CH-202: Organic and Inorganic Chemistry	<ul style="list-style-type: none"> • To gain the Knowledge of preparations, reactions and properties aldehydes and ketones • To gain the Knowledge of preparations and reactions of carbonyl group. • To gain the Knowledge of preparation of carboxylic acids. • To learn volumetric analysis

		<ul style="list-style-type: none"> • To learn about chemical bonding, theories of bonding, types of overlap.
	CH-203: Chemistry Practical	<ul style="list-style-type: none"> • To handle viscometer to determine the viscosity and relative viscosity of liquids. • To carry out quantitative analysis by instrumental method using Conductometer. • To estimate of aniline / phenol. • To perform qualitative analysis of organic compounds. • To carry out quantitative analysis by volumetric method and gravimetric methods
F.Y.B.Sc.	DSC 1 A: CS 101: Essential of Computer Science	<ul style="list-style-type: none"> • Understand the fundamental components of computer System. • Understand the basic concepts of computer network. • Aware about various types of computer viruses and their types. • Understand several types of operating systems.
	DSC 1 A: CS 102: C Programming-I	<ul style="list-style-type: none"> • Understand history of C programming language and its applications. • Be familiar with programming environment with C Program structure. • Declare variables and constants and use them. • Understand operators, expressions, conditional statements and preprocessors. • Understand arrays, it's declaration and uses. • Develop their programming skills
	DSC 1 B: CS 201: Internet Computing	<ul style="list-style-type: none"> • Understand the types of Website, it's structure, Site Organization Model, site planning • and testing. • Understand Web design process. • Know the different page types on websites and its navigations. • Design website using HTML language. • Design advanced website using CSS.
	DSC 1 B: CS 202: C Programming-II	<ul style="list-style-type: none"> • Design programs using Functions, Pointers, Structures and Unions in C language. • Write the programs using File Handling concepts. • Write the programs for drawing different graphical shapes.
	CS LAB: DSC 1A LAB: Lab Course on Essential of Computer and C Programming CS-103 and 203 LAB Course on Paper I&II	<ul style="list-style-type: none"> • students are able to develop programs using C to meet real world • need and able to develop their own websites. • This course provides platform to enhance student's • basic skills required for advanced programming.
FYBSc	ELECTRONICS-DSC 1 A: Network Analysis and Basics of Digital Electronics	<ul style="list-style-type: none"> • Apply knowledge to develop circuits using electronic devices. • Apply the concept and knowledge of electronics devices to real life problems. • Simulate complex circuits and understand the behavior of the systems. • Understand and analyze, linear and digital electronic circuits. • Review, prepare and present technological developments.
	ELECTRONICS-DSC 1 B: Analog Electronics and Digital Circuits	<ul style="list-style-type: none"> • Apply the concept and knowledge of digital integrated circuit chips to develop new systems. • Apply practical knowledge to solve real life problems of the society. • Understand of the course and create scientific temperament and give exposure to the students for independent use of digital integrated circuit chips for innovative applications. • Model complex circuits and simulate them.

		<ul style="list-style-type: none"> • Handle simulation software to analyse analog and digital electronics circuits.
FYBSc	MTH 101: Matrix Algebra	<ul style="list-style-type: none"> • Upon successful completion of this course the student will be able to : • Understand concepts on matrix operations and rank of the matrix. • Understand use of matrix for solving the system of linear equations. • Understand basic knowledge of the eigen values and eigen vectors. • Apply Cayley-Hamilton theorem to find the inverse of the matrix. • Know the matrix transformation and its applications in rotation, reflection, translation.
	MTH 102: Calculus	<ul style="list-style-type: none"> • Upon successful completion of this course the student will be able to: • Understand basic concepts on limits and continuity. • Understand use of differentiations in various theorems. • Know the Mean value theorems and its applications. • Make the applications of Taylor's, Maclaurin's theorem. • Know the applications of calculus.
	MTH 103(B): Graph Theory	<ul style="list-style-type: none"> • To know the basic graphs and types of graphs • To understand operation on graphs • To understand connected graphs, Eulerian and Hamiltonian graphs • To solve various problems related with planer graphs • To learn trees and spanning trees.
	MTH 201: Ordinary Differential Equations	<ul style="list-style-type: none"> • Upon successful completion of this course the student will be able to: • Understand basic concepts in differential equations. • Understand method of solving differential equations • Understand use of differential equations in various fields.
	MTH 202: Theory of Equations	<ul style="list-style-type: none"> • To understand the number system • To learn divisibility and its application • To know about congruence relation and classes • To learn Fermat's theorem and Euler's theorem • To learn relation between roots and coefficients of polynomial equation
	MTH 203(B): Numerical Analysis	<ul style="list-style-type: none"> • Understand basic concepts of methods of solutions of equations viz. bisection, iteration, Newton-Raphson methods and method of false position. • Understand methods of curve fitting viz. Gauss's forward and backward difference formulae and Lagrange's interpolation formula. • Use of curve fitting such as least square, polynomial and exponential fittings for set of given data. • Use Taylor's series, Euler's method. Modified Euler's method., Runge Kutta methods for solving ordinary differential equations.
F.Y. B. Sc.	PHY 101: Basic Mechanics	<ul style="list-style-type: none"> • To understand Vector algebra, Scalar and vector products, Derivatives of a vector with respect to a parameter. • To know about Types of differential equations, degree and order of differential equation, linear and non- linear differential equations, homogeneous and non-homogeneous differential equations 1st order homogeneous differential equations, 2nd order homogeneous differential equations with constant coefficients. • To understand Frames of reference, Newton's Laws of motion. • To understand Dynamics of a system of particles, Centre of Mass. • To know Conservation of momentum, Work and energy. • To understand Conservation of energy, Motion of rockets.

		<ul style="list-style-type: none"> • To understand Angular velocity and angular momentum, Torque. • To understand Conservation of angular momentum.
	PHY-102: Electricity and Magnetism	<ul style="list-style-type: none"> • To understand the fundamental Physics related to current electricity. • To study the working and operation of few electrical D.C. circuits. • Classify different types of magnetic materials with their properties. • To acquire knowledge about the phenomenon of electromagnetic induction. • To understand Kirchoff's law by loop analysis. • To understand and illustrate Network theorem including Thevenin's theorem, Norton's theorem and Maximum power theorem.
	PHY-201: Heat and Thermodynamics	<ul style="list-style-type: none"> • To understand and discuss the results of Andrew's experiment and Amagat's experiments. • To determine van der Waals equation, Critical constants and concept of Boyle's temperature. • Understand basic concept of thermodynamics and to distinguish between work done due to Adiabatic and isothermal changes. • To understand Carnot's ideal heat engine, Carnot cycle and its efficiency, Carnot's theorem, Otto and Diesel engines with their efficiencies. • To state First and Second law equations. • To understand Concept of entropy, Change of entropy in Reversible process and Irreversible process, T-S diagram. • Knowledge of basic principles of refrigeration methods: Evaporative refrigeration, refrigeration by throttling of gas, vapour refrigeration. • To learn basic components of simple vapour compression refrigeration understand its working with P-h diagram
	PHY-202: THEORETICAL PHYSICS	<ul style="list-style-type: none"> • Students understand how to do addition, subtraction, multiplication, division and complex conjugate of complex numbers. • They learned how to write complex numbers in Rectangular, Polar and Exponential forms. • They understand how to use complex numbers to determine velocity and acceleration in circular motion. • They understand how to do differentiation like partial differentiation, total differential, and exact differential. • They learned how to Change of variables from Cartesian to polar coordinates. • They learned scalars and vectors and its Dot product and cross product of two vectors with their properties. • They understand Scalar triple product with properties and its geometrical interpretation. • They learned how to take divergence of vector field and circulation (Curl) of vector field.
	PHY 103: Practical Physics	<ul style="list-style-type: none"> • To acquire knowledge about experiments related to mechanics. • To understand the fundamentals related to elasticity and viscosity. • To describe the fundamentals of electricity and magnetism. • Creating awareness about the consumption of electricity with energy meter. • Understanding of the optical phenomenon through experiments of Optics. • SECTION-I • M.I. of a disc by torsional pendulum. • 2π by torsional oscillation. • Determination of acceleration due to gravity by Kater's reversible pendulum.

		<ul style="list-style-type: none"> • Determination of Y by using flat spiral spring. • Determination of η by using flat spiral spring. • To determine Y of rectangular beam by method of bending. • To determine Y by vibrational cantilever. • Poisson's ratio of rubber by using cord/rubber tube. • Determination of coefficient of viscosity of water by Poiseuille's method. • Verification of Bernoulli's theorem. • To determine the surface tension by Jaeger's method. • Thermal conductivity by Lee's method. • Thermocouple as thermometer. • SECTION-II • Verification of Kirchhoff's laws. • Verification of Thevenin's theorem. • Verification of Norton's theorem. • Maximum power transfer theorem. • Verification of Joule's law. • Determination of time constant of L-R circuit. • Determination of time constant of R-C circuit using charging and discharging of condenser through resistor. • To determine efficiency and turns ratio of transformer. • Study of spectrometer and determination of angle of prism. • Use of analog/digital multimeter. • Electric billing with energy meter. • Study of I-V characteristics of solar cell. • Frequency of a. c. using vibrating wire and magnet.
F.Y.B.Sc	ZOO 101 Invertebrate	<ul style="list-style-type: none"> • To know the basic concept of taxonomy. • Identified the taxonomic status of the entire non-chordates up to Echinodermata and discuss the evolutionary model of the group. • Described the general biology of few selected non-chordates useful to mankind. • Know about some of the important and common protozoans, helminthes of parasitic nature causing diseases in human beings. • Understand the important general topics of each phyla such as locomotion in protozoa, metamerism in annelids etc.
	ZOO 102 Grasshopper the non-Chordate	<ul style="list-style-type: none"> • Understanding the classification of chordates up to orders and general features of each class. • Understand the important general topics of each class such as osmoregulation in fishes, metamorphosis in frog, parental care in amphibia etc. • Study of different socially important general topics such as poisonous and nonpoisonous snakes, biting mechanism in snakes. • Understanding the origin and evolution of mammals.
	ZOO-202 Vertebrate	<ul style="list-style-type: none"> • To know about the structure and functions of various systems of the body. • To understand the evolution of various systems in different classes of chordates. • To get the knowledge of comparative study of different organs in different classes. • To know the structure and functions of different sense organs
	ZOO 202 Frog: The Chordate	<ul style="list-style-type: none"> • Introduction to the concept of embryology.

		<ul style="list-style-type: none"> • Understanding the structure of gametes and different types of female gamete. • Study of the chick embryology in detail with reference to various stages of development.computer
	ZOO-103 Practical Zoology SEM-I	<ul style="list-style-type: none"> • To study the various specimens of non-chordates and chordates with reference to their classification, habit,habitat, biological and economic importance. • To observe permanent slides and correlate with therotical knowledge. • Identification of poisonous and non-poisonous snakes with the help of photographs and key provided.
	ZOO 203 Practical Zoology Sem-II	<ul style="list-style-type: none"> • To study the disarticulated skeleton of fowl and rabbit, their bones with the help of photographs. • To study the developmental stages of frog through permanent slides. • Understand the types of placenta with respect to histology. • To examine frog/ rat gametes through permanent slides/ photographs.
S.Y.B.Sc.	Paper-I BOT. - 301: Plant Anatomy	<ul style="list-style-type: none"> • Student will know scope and importance of plant anatomy • Students will study various tissue systems • Students will know primary structure of dicot and monocot plants • Students will study normal secondary growth in plants and their causes • Students will study protective tissue system
	Paper – II BOT.302: Plant Physiology	<ul style="list-style-type: none"> • Students will know importance and scope of plant physiology. • Students will study plant and plant cell in relation to water. • Students will study different process in relation with structure of organism and its environment. • Students will understand mechanism of absorption of water, gases and solutes. • Students will understand growth at various level.
	Paper – IV Skill Enhancement Course (SEC)BOT. 304: Mushroom Culture Technology	<ul style="list-style-type: none"> • Students will learn the history, scope and importance of mushroom technology • Students will understand nutritional and medicinal values of edible mushrooms • Students will know about the storage, marketing and various food preparations of mushrooms. • Students will understand the economics of mushroom cultivation.
	Paper- I BOT. - 401: Plant Embryology	<ul style="list-style-type: none"> • Students will know the scope and Importance of Embryology • Students will study structure of micro and megasporangium. • Students will study pollination, fertilization, Endosperm and Embryogeny. • Students will give exposure of techniques in embryology
	Paper- II BOT.-: 402 Plant Metabolism	<ul style="list-style-type: none"> • Students will know the scope and importance of plant metabolism. • Students will study the properties, mechanism and classification of enzymes. • Students will study the process of photosynthesis in higher plants, C3, C4 and CAM pathways. • Students will study respiration in higher plants.
SY B.Sc.	CH 301: Physical and Inorganic chemistry	<ul style="list-style-type: none"> • Understand the Electronic structures, size of atoms and ions, ionization energy, metallic properties and non-metallic properties of d block elements. • Understand concept of Helmolthz free energy • Understand numerical calculations of Gibbs free energy. • Understand concept of vapor pressure of liquids. • Understand the concept of physical properties of metals

		<ul style="list-style-type: none"> • Learn methods of purification of ores. • Study of stereoisomerism • Study of amines their formation reactivity. • Study of reactivity, preparation and reactions of organo Li, Cu, Zn compounds. • Understand the importance of analytical chemistry in analysis of compounds by titrimetric, gravimetric and instrumental methods. • Gain the Knowledge of sampling methods and ways of interpretation of results of analysis. • Determine the causes of errors and their minimization during analysis • Learn the application of types of titrations for quantitative analysis of the samples • Study of stereoisomerism • Study of amines their formation reactivity. • Study of reactivity, preparation and reactions of organo Li, Cu, Zn compounds. • Understand the importance of analytical chemistry in analysis of compounds by titrimetric, gravimetric and instrumental methods. • Gain the Knowledge of sampling methods and ways of interpretation of results of analysis. • Determine the causes of errors and their minimization during analysis • Learn the application of types of titrations for quantitative analysis of the samples
	CH 303: Chemistry Practical:	<ul style="list-style-type: none"> • To know the various techniques chromatography for separation of components in the mixture. • Understand recrystallization for purification of organic compounds. • Prepare various inorganic complexes. • Analysis of compounds by titrimetric, gravimetric and instrumental methods. • Understand to determine thermodynamic parameter.
	CH-304 Basic Analytical Chemistry (SEC I)	<ul style="list-style-type: none"> • Understand Basics of Analytical Chemistry • Study the Techniques to perform Acid-Base Precipitation titrations • Understand the Chromatography and Chromatographic techniques
	CH 401 Physical and inorganic chemistry	<ul style="list-style-type: none"> • Understand colligative properties and its application calculation of molecular weight of solutes • Understand concept of electromotive force and its measurement • Understand about properties of Lanthanides and actinides. • Understand concept of s-s, s-p, p-p, p-d & d-d combination of orbitals. • Understand about classification of electrodes.
	CH 402: Organic and Analytical chemistry	<ul style="list-style-type: none"> • Learn the synthesis and reaction of 5, 6 member and condensed heterocyclic systems. • Understand the synthesis of synthetic reagents and their synthetic utility. • To know the mechanism and stereochemistry of E1, E2 reaction. • Understand the concept of quantitative analysis by gravimetric methods. • Gain the Knowledge of concept for separation of analytes in samples by thin layer, paper and column chromatographic methods.

	CH 403: Chemistry Practical:	<ul style="list-style-type: none"> • Carry out qualitative analysis of organic compounds. • Determine molecular weight by depression of freezing point method. • Handle Landsbergers apparatus for determination of molecular weight. • Estimation of Nickel and Barium gravimetrically. • Make use of potentiometer for determination of standard electrode potential
	CH-404 Advanced Analytical Chemistry (SEC II)	<ul style="list-style-type: none"> • Understand Basics of Advance Analytical Chemistry • Study the Techniques to perform Redox and Complexometric titrations • Understand the Chromatography and Chromatographic techniques
S.Y.B.Sc	CS-DSC 2 C: COMP 211: Data Structure – I	<ul style="list-style-type: none"> • Know what is data structure and basic algorithmic notations. • Analyze the time and space requirement of any algorithm. • Understand different data structures like stack, queue and linked list, they can also be • aware about the types, applications and operations of these data structures. • Effectively use of the above mentioned data structures depending upon the data of the • application.
	CS-DSC 2 C: COMP-212: Programming in C++-I	<ul style="list-style-type: none"> • Understand basic concepts of C++ programming like data types, keywords, operators and • manipulators. • Be familiar with classes and objects, and Object Oriented Programming Environment. • Understand concepts of Functions in C++ and use them in programs. • Know function and operator overloading in C++ and effectively use them in programs.
	CS SEC-I (Skill Enhancement Course-I): Software & Hardware Installation Skills	<ul style="list-style-type: none"> • Install Operating System on computer. • Perform various types of Software and device installation. • Diagnostic Tools & PC Maintenance. • Setup Basic Network in a lab.
	CS-DSC 2 D: COMP-211: Data Structure – II	<ul style="list-style-type: none"> • Know different non-linear data structures that can be used to represent hierarchical • relationship between objects. • Traverse and represent the graphs in computer. • Understand the different approaches of sorting and searching elements in the arrays.
	CS-DSC 2 D: COMP-222: Programming in C++-II	<ul style="list-style-type: none"> • Define and use constructors and destructors in their programs. • Create classes using the concepts of inheritance. • Deal with runtime error by using several exception handling mechanisms. • Write generic programs using templates and STL. • Use files for storing and retrieving data.
	CS SEC-II (Skill Enhancement Course-II): Network Security	<ul style="list-style-type: none"> • Understand need, approaches and principles of security. • Understand types of Malicious Software, Viruses, Firewall. • Categorized several types of attacks. • Learn Intrusion Detection System and system security.
	CS-DSC 2 D: Lab Course	<ul style="list-style-type: none"> • students are able to develop programs using C++ based on.

	on COMP 223: Practical Course	<ul style="list-style-type: none"> • The concepts of object-oriented programming. • Students can also able to develop the programs related to several data structures like stack, queue, linked list, tress and graphs.
S. Y. B. Sc.	ELECTRONICS-DSC 1 A: Analog Communication and Microprocessors	<ul style="list-style-type: none"> • Apply knowledge to develop circuits of analog modulation and demodulation. • Apply the concept and knowledge of microprocessors to real life problems. • Analyse modulation circuits and understand the behaviour of the systems. • Understand and analyse 8085 microprocessor and its programming. • Review, prepare and present technological developments.
	ELECTRONICS-DSC 2D: Digital Communication and Microcontrollers	<ul style="list-style-type: none"> • Apply the concept and knowledge of digital communication to develop new systems. • Apply practical knowledge of microcontrollers to solve real life problems of the society. • Understanding of the course and create scientific temperament and give exposure to the students for independent use of microcontroller for innovative applications. • Gain knowledge of microcontroller programming. • Handle hardware and software to shoot problems of the society.
SYBSc	MTH 211: Calculus of Several variables	<ul style="list-style-type: none"> • It is used in almost all branches of engineering. • It deals with calculus of several variables. • To understand the importance of Taylors series. • To understand Mean value theorem. • To find area by double integration. • To find volume by triple integration.
	MTH-212(B): Computational Algebra	<ul style="list-style-type: none"> • Introduce the concept of algebra in computer • To learn the types of groups • To understand homomorphism and isomorphism • To learn group codes and decodes
	MTH 221: Complex Analysis	<ul style="list-style-type: none"> • It is used in fluid mechanics • To understand concept of complex numbers • To learn operation of complex numbers • Complex integration, residues and poles • To understand analytic concept
	MTH 222(B): Differential Equations and Numerical methods	<ul style="list-style-type: none"> • It is useful for methods of momentum and energy transfer. • To study existence and uniqueness about solutions. • To learn about the simultaneous differential equations. • To understand the methods of solution for total differential equations • It is widely used in Civil engineering, Mechanical engineering, etc. • To understand definition and properties of difference equations.
S.Y. B. Sc.	PHY-301: Waves and Oscillations	<ul style="list-style-type: none"> • The ability of students developed how to do composition of two S.H.M.s having equal frequencies alongsame line of vibration. • They learned how to get the lissajous figures using mechanical, optical and electrical methods. • They understand what is Oscillations and how it is divided into different type on basis of it motion and different force action on it. • Student learned how energy, power dissipated in the oscillations and how to calculated quality factor. • The ability of student developed how to used Damped free oscillations in LCR

		<p>ckt..</p> <ul style="list-style-type: none"> • They understand when the amplitude resonance and its relation with maximum power. • They learned how hearing ability of human being changes on the basis of sound intensity and its relation with loudness. • They learned how we can produce ultrasonic wave.
	(b) PHY- 302 (B) - Instrumentation	<ul style="list-style-type: none"> • To understand Standards of measurements and calibration • To understand Static performance characteristics such as Accuracy, Precision, Sensitivity, Linearity. • Concepts of errors and their types. • To know the principal, construction and working of Liquid- in-glass thermometer, Pressure thermometer their types Constant volume gas thermometer and Vapour pressure thermometer. • To study the principal, construction and working of Metallic resistance thermometer , Semiconductor resistance sensors ,Thermo-electric sensors . • To know the principal, construction and working of Total radiation pyrometer and Selective radiation pyrometer • Measurement of high pressure , Measurement of low pressure • To know the principal, construction and working of Microphones such as Condenser type microphone, Electret Microphone, Electrodynamic types of microphone .
V	PHY – 401: Modern Physics	<ul style="list-style-type: none"> • To study conventional, non-conventional energy sources, solar cell-(types, working principle, operation and its applications) • To learn LASER (principle, characteristics, steps of formation, types, applications) • To understand Bohr's and Sommer field theories of hydrogen atom along with limitations of quantum mechanical model. • Study of matter waves through few experiments and uncertainty principle.
	PHY-402: Optics and LASER	<ul style="list-style-type: none"> • To study of Deviation produced by thin lenses, equivalent focal length of two thin lenses separated by a distance and when in contact, Power of lens. • To understand Spherical aberration in lens, reduction of spherical aberration, Chromatic aberration, Achromatism. Intensity distribution in the interference pattern, Phase change on reflection. • To study Interference due to reflected light, Interference in thin wedge shaped film, fringe width in case of fringes of equal thickness. • Newton's rings theory and its application to determine wavelength of source and refractive index of liquids, Michelson Interferometer. • To study the concept of Fraunhofer diffraction at single slit and double slits, Theory of plane transmission grating, Intensity distribution in diffraction pattern. Fresnel diffraction, rectilinear propagation of light, Resolving power of grating. • To understand basics of Polarization, Polarization by reflection, Brewster's law, Polarization by double refraction in uniaxial crystals, Double refracting crystals, Huygens explanation for normal incidence, Positive and negative crystals. • To understand production and detection of circularly and elliptically polarized

		<p>light, Construction of Polaroid, Quarter and Half wave plates, Nicol prism, Rotation of the plane of polarization, Specific rotation, Polarimeter, Optical Activity.</p> <ul style="list-style-type: none"> • To understand Principle of LASER, Characteristics of LASER, Basic steps required to form a LASER: absorption, spontaneous emission, stimulated emission, Metastable state, population inversion, optical pumping, Types of LASER, He-Ne LASER
	PHY 303: PRACTICAL COURSE-I	<ul style="list-style-type: none"> • SECTION-I • Determination of the decrement factor by using Logarithmic decrement (in air / water). • Study of acoustic resonance by using bottle as a resonator. • Determination of velocity of sound by using Kundt's tube. • Study of electrical resonance by using series L-C-R circuit. • Study of acoustic resonance by using resonance tube. • Study of resonance using Kater's pendulum. • Comparison of capacities by De Saughty's method. • R, Γ, Q using damped harmonic motion. • Demonstration of Lissajous figures by using C.R.O. • Frequency response of CE single stage transistor amplifier and to calculate its bandwidth. • SECTION-II INSTRUMENTATION-II • Use of C.R.O as a measurement tool for different electrical parameters (frequency, a.c. /d.c.voltage, pulse height, pulse width, rise time and fall time). • To obtain Lissajous figures using C.R.O. • To determine characteristics of Thermistor and to find an unknown temperature by using thermistor. • Measurement of magnetic field by search coil. • Measurement of magnetic field by hall probe method. • Directional characteristics of a microphone. • Platinum resistance thermometer. (Determine the melting temperature of Wax) • Velocity of sound by phase shift method. • Measurement of Noise by Using Sound Pressure level Meter.
S.Y.B.Sc.	ZOO 301 Physiology	<ul style="list-style-type: none"> • Understanding of the physiology of various systems in the human body. • Explanation of the different functions and mechanism of the systems. • Identification oral and aboral surface of starfish. • Understanding of the hormonal control of reproductive organs.
	ZOO 302 Biochemistry	<ul style="list-style-type: none"> • Knowledge and introduction of the scope of Biochemistry. • Understanding of the metabolism of different food stuffs in human body. • Understanding the enzyme activity, classification, mechanism of action and regulations.
	ZOO-401 Genetics	<ul style="list-style-type: none"> • Introduction of Mendelian work of Genetics and its extension. • Understanding the linkage, crossing over and chromosomal mapping. • Explanations of sex determination with various methods. • Understanding the different types of chromosomal mutations.
	ZOO 402 Evolutionary Biology	<ul style="list-style-type: none"> • Introduction to the major events in history of life and various evolutionary theories. • Study of direct evidences of evolution, organic variations with processes.

		<ul style="list-style-type: none"> • Study of macroevolution, concept of species and mass extinction.
T.Y.B.Sc.	BOT. 501, Paper – I Cryptogams	<ul style="list-style-type: none"> • Students will study salient features of Cryptogamic plants. • Students will make students aware of the status of cryptogams as a group in plant kingdom • Students will study the life cycles of selected genera. • Students will study economic and ecological importance of Cryptogamic plants.
	BOT.502, Paper-II Morphology and Systematics of Angiosperm	<ul style="list-style-type: none"> • Students will study status of angiosperms in plant kingdom • Students will study origin of Angiosperms with respect to time, place, origin and probable ancestors. • Students will study vegetative and floral morphology of angiospermic plants. • Students will know various angiosperm families emphasizing their morphology, distinctive features and biology. • Students will know the role of anatomy and embryology in Taxonomy.
	BOT. 503, Paper- III Cell Biology and Genetics	<ul style="list-style-type: none"> • Students will introduce with “Cell Biology and Genetics”. • Students will study the Prokaryotic and eukaryotic cell. • Students will know about the cell cycle. • Students will study “Science of Heredity”. • Students will know about the scope and importance of cell biology. • Students will study linkage and crossing over.
	BOT. 504, Paper-IV Plant Physiology and Biochemistry	<ul style="list-style-type: none"> • Students will learn and understand about growth pattern in plants. • Students will study the different types of movements in plants. • Students will know the phenomenon of photoperiodism and effect of phytochrome on flowering. • Students will study the process of translocation of organic solutes in plants. • Students will study the vernalization process. • Students will study the biomolecules in plants. • Students will study secondary metabolites and their role in plants.
	BOT.505, Paper-V- Biofertilizers	<ul style="list-style-type: none"> • Students will know the importance of biofertilizers. • Students will introduce application of Biofertilizer technology in Agriculture. • Students will familiarize with microbes used as biofertilizers. • Students will demonstrate the low cost media preparation and cultural practices in biofertilizers. • Students will aware about benefits of applications of biofertilizers. • Students will know about self employment opportunities.
	BOT. 506 Paper -VI Horticulture	<ul style="list-style-type: none"> • Students will know about horticulture, its scope, disciplines and importance. • Students will understand different horticultural practices and their methods . • Students will study importance, principles and types of Bahar treatment. • Students will learn the role played by green and poly houses in horticulture. • Students will understand methods of preservations and preparations of preserved products. prevailing especially in this part of the state.
	BOT. 601 Paper – I Higher Cryptogams	<ul style="list-style-type: none"> • Students will study salient features of cryptogamic plants. • Students will make aware about the status of cryptogams as a group in plant kingdom. • Students will learn the life cycles of selected genera. • Students will learn economic importance of cryptogamic plants.
	BOT. 602: Paper-II Gymnosperms & Paleobotany	<ul style="list-style-type: none"> • Students will study Gymnosperms with respect to distinguishing characters, comparison with Angiosperms, economic importance and classification. • Students will study the life cycles of <i>Pinus</i> and <i>Gnetum</i>.

		<ul style="list-style-type: none"> • Students will learn about the scope of Paleobotany, types of fossils and geological time scale. • Students will study the various fossil genera representing different fossil groups.
	BOT : 603 Paper - III Molecular Biology	<ul style="list-style-type: none"> • Students will study molecular biology in relation to genetic material, its inheritance, modification, and replication. • Student will get information about the mitochondria and chloroplast DNA. • Students know about transcription, translation post translation modification of protein. • Students will learn gene regulation in prokaryotes and eukaryotes.
	BOT- 604 Paper- IV Economic Botany	<ul style="list-style-type: none"> • Students will know about useful bio resources of prime importance to mankind. • Students will acknowledge about various groups of plants of the world as well of India. • Students will know about botanical, chemical and nutritional values and value additions of food grains, legumes, sugars, vegetable, fruits, spices, etc. • Students will reveal new vis-a-vis forgotten food sources and their current practices. • Students will know the general account and uses of rubber, fiber and Timber..
	605 BOT Paper – V Floriculture	<ul style="list-style-type: none"> • Students will know about floriculture, its scope and importance. • Students will know the commercial floriculture. • Students will study the different features of garden. • Students will study methods of propagation. • Students will get information diseases and pests of ornamental Plants.
	606 (B) BOT Paper – VI Plant Breeding	<ul style="list-style-type: none"> • Students will introduce with the science of plant breeding. • Students will introduce with the branch of plant breeding for the survival of human being from starvation. • Students will learn the different methods of crop improvement. • Students will study the techniques of production of new superior crop varieties. know Scope and importance of Plant Protection .
T.Y. B.Sc	CH 351: Physical Chemistry	<ul style="list-style-type: none"> • Learn the concept of Radioactivity and its application in various field • Understand the importance of salt bridge in electrochemical cell. • Gain knowledge of Phase rule and its application to water and sulphur system • Understand the concept electrochemical cell and determination of potential of cell • Understand the laws of photochemistry (Grothus Draper Law and Stark Einstein law) • Understand the concept quantum yield and fluoresce and phosphorescence from Jablonski diagram. • Understand the various devices to measure the radiation from radioactive sample.
	CH-352: Inorganic Chemistry	<ul style="list-style-type: none"> • Learn the basic concept of the co-ordination compound, and

		<p>identify the types of given ligand, chelates.</p> <ul style="list-style-type: none"> • Understand the different physical method for the study of complexes and main points of Werner theory and isomerism in coordination compounds. • Understand Effective atomic number (EAN) and how to calculate EAN for any given complexes. • Understand the modern theories of metal-ligand bond related to valence bond theory. • Application of CFT related to different geometry e. Square planer, tetrahedral, Octahedral. • Understand the basic concept about CFT e. Spin magnetic moment, crystal field stabilization energy related to weak and strong field, limitation of theory. • Understand assumption and applications of V. B.T., C.F.T. and M.O.T.V
	CH-353: Organic Chemistry	<ul style="list-style-type: none"> • Study structural effects • Study concept of aromatic electrophilic and nucleophilic aromatic substitutions • To study electrophilic aromatic addition to $C=C$ • Learn rearrangement reactions.
	CH-354: Analytical Chemistry	<ul style="list-style-type: none"> • Understand procedure of extraction of metal ions using Solvent Extraction process. • Understand the application of Ion Exchange Chromatography method for the separation of cations and anions using different types of resins. • Understand applications of Size Exclusion Chromatography for the separation of analytes based on their size and shapes. • Understand the working of Gas Chromatographic unit and apply the knowledge to separate volatile compounds in sample. • Understand Principle, choice of column materials for HPLC and its application. • Understand Principles of Electrophoresis and choice of techniques of electrophoresis for various applications
	CH-355: Industrial Chemistry	<ul style="list-style-type: none"> • Understand general concept of Industrial chemistry. • Understand manufacturing of sugarcane.

		<ul style="list-style-type: none"> • Understand general idea of differ physical methods used in manufacturing. • Understands various types of fertilizer. • Understand manufacturing of Beer and spirit. • Understand the aspects of small scale industry.
	CH 356: A Biochemistry	<ul style="list-style-type: none"> • Learn the classification of carbohydrates and their reactions. • To gain the basic concept of amino acid and Proteins • Understand the classification of Enzymes • Understand the concept and classification of Lipids and their uses • Gain knowledge of nucleic acids DNA and RNA • Study of energy rich compounds • Study of carbohydrate, amino acid and lipid metabolism
	CH-357,367: Physical Chemistry Practical	<ul style="list-style-type: none"> • Prepare molar and normal solutions of various concentrations. • Determine concentration of unknown solutions by Spectrophotometric method. • Measure the pH, pKa and Ka of various acids by potentiometry. • Measure refractive index, molar refraction and unknown concentration of various solvents. • Determine the molecular weight of a given polymer by turbidimetry. • Investigate the reaction rate.
	CH 358,368: Inorganic Practical	<ul style="list-style-type: none"> • Estimate ores and alloy by gravimetric and volumetric method. • Separate and analyze binary mixtures by qualitative method • Prepare and determine percent purity of various inorganic complexes. • Perform chromatographic technique (paper chromatography). • Estimate Lead, Iron by gravimetric method. • Estimate Titanium and Iron by Spectrophotometric method.
	CH 359,369: Organic practical:	<ul style="list-style-type: none"> • Separate and analyze binary water insoluble mixture • Separate and analyze binary water soluble mixture • Learn how to estimate –sap value of oil, acetamide, glycine and glucose by volumetric method • Learn how to estimate basicity of various acids. • Learn how to synthesis various organic compounds.

		<ul style="list-style-type: none"> • Learn technique of recrystallisation.
T.Y. B.Sc	CH-361: Physical Chemistry.	<ul style="list-style-type: none"> • Understand the types of spectra, Rotational, Vibration and Electronic energy levels. • Difference between order and Molecularity • Understand the first, second and third order reaction. • Understand the concept anisotropic, isotropic, etc figure, polymorphism, Bragg relation • Learn concept Photoelectric effect, Compton Effect and Heisenberg's uncertainty principles. • Understand the concept of X-ray analysis.
	CH-362: Inorganic Chemistry	<ul style="list-style-type: none"> • Understand the electronic structure, Extraction uses, oxidation states biological role of Cu. • Know about the all basic theory of Acid and bases. • Understand the concept of Hard and Soft acid bases concept theories, application and limitations. • Know the different types and theories of Corrosion and how to protect Metal from corrosion.
	CH-363: Organic Chemistry	<ul style="list-style-type: none"> • Understands common terms in spectroscopy. • Learn Physical methods of structure determination which includes IR, UV and NMR. • Solve the problems based on IR, UV and NMR. • Study of retro synthesis. • Study the Natural products viz. alkaloid and terpenoid.
	CH-364 Analytical Chemistry	<ul style="list-style-type: none"> • Perform the analysis of samples using instrumental methods • Understand the concepts of spectrometry, know the principles of instruments and their applications • Understand principle, working and applications of Flame and Plasma Emission Spectrometry. • Understand principle, Instrumentation and application of Atomic Absorption Spectrophotometry • Understand principle, Instrumentation and applications of Turbidimetry and Nephelometry. • Understand principle, Instrumentation and applications of thermogravimetric methods like TGA, DTA and DSC.
	CH-365: Industrial Chemistry	<ul style="list-style-type: none"> • Understand the process of manufacturing of petrol and gasoline. • Understand the process of manufacturing of methanol.

		<ul style="list-style-type: none"> • Understand the process of manufacturing of soap. • Understand the process of manufacturing of detergents. • Understand classification of dyes and paints. • Understand properties of drugs.
	CH 366: Polymer Chemistry	<ul style="list-style-type: none"> • Understand the basic concepts of polymerization. • Understand the different methods of polymerization. • Understand various techniques of polymerization. • Understand the preparation, properties and applications of PE, PVC, Polystyrene, polyacrilonytrile, • Understand the concept Glass transition temperature
T.Y.B.Sc	DSC (UG-CS-501) System Programming	<ul style="list-style-type: none"> • Understand details about system software • To do basic system program like development of editors lexical analyzers etc • Students are familiar with language processing activities- functions of translators, loader • and linkers.
	DSC (UG-CS-502): Database Management System	<ul style="list-style-type: none"> • Solve real world problems using appropriate set, function, and relational models. • Design E-R Model for given requirements and convert the same into database tables. • Use SQL.
	DSC (UG-CS-503) Software Engineering	<ul style="list-style-type: none"> • Students are able to perform the E-R Diagram, DFD, Data dictionary, Decision tree about • software. • They can also design the software in learned language using the course content. • Get the knowledge of types of testing & how testing is performed in industry.
	DSC (UG-CS-504): Computer Aided Graphics	<ul style="list-style-type: none"> • Differentiate between interactive and non-interactive graphics. • Study line Drawing and Circle Drawing techniques and algorithms. • Perform 2D and 3D transformation on different images. • Know about detail working of 2D and 3D clipping and windowing. • Understand raster graphics and hidden surface elimination
	DSC SEC(UG-CS-505) Python Programming – I	<ul style="list-style-type: none"> • Explain basic principles of Python programming language • Construct and apply various filters for a specific task. • Apply the best features of mathematics, engineering and natural sciences to program real • life problems.
	DSC (UG-CS-506 A): Elective A - Internet Programming using PHP	<ul style="list-style-type: none"> • To Design dynamic and interactive Web pages. • PHP framework for effective design of web applications.
	DSC (UG-CS-506B): JAVA Programming I	<ul style="list-style-type: none"> • Get knowledge of JDK environment • Explore polymorphism using method overloading and method overriding • Understand the different aspects of hierarchy of classes and their extensibility

		<ul style="list-style-type: none"> • Understands the concept of streams and files • Write programs for handling run time errors using exceptions
	DSC (UG-CS-601): Operating System	<ul style="list-style-type: none"> • Students should familiar with Operating System Services. • Understand CPU scheduling algorithms, memory Management Techniques, Disk Drum Scheduling algorithms, Deadlock preventions and avoidance. • Introduction to android operating systems – its architecture, applications and uses.
	DSC (UG-CS-602): Relational Database Management Systems	<ul style="list-style-type: none"> • Design E-R Model for given requirements and convert the same into database tables. • Use database techniques such as SQL & PL/SQL. • Explain transaction Management in relational database System. • Use advanced database Programming concepts
	DSC (UG-CS-603): Computer Network	<ul style="list-style-type: none"> • Students understand the information exchange done across the network with the help of OSI & TCP/IP models. • Student understands how errors are captured & handled in network. • Student understands various attack & its prevention techniques.
	DSC (UG-CS-604): Theoretical Computer Science	<ul style="list-style-type: none"> • Understanding the use of Sets, Relations and Graphs. • Understand Languages in TCS. • Introduction of Regular Languages and Expressions. • Understanding Pumping Lemma and its applications. • Explore the knowledge of Pushdown Automata. • Understanding Normal Forms with Examples. • Understanding Turing Machine.
	DSC (UG-CS-605) Python Programming – II	<ul style="list-style-type: none"> • Explain basic principles of Python programming language • Implement object-oriented concepts, database applications. • Construct regular expressions for pattern matching and apply them to various filters for a specific task. • Design and implement Database Application and Content providers. • Apply the best features of mathematics, engineering and natural sciences to program real life problems.
	DSC (UG-CS-606 A): Elective A - Web Programming using ASP.NET	<ul style="list-style-type: none"> • Upon completion of this course the students should be able to understand the .NET framework • Develop a proficiency in the ASP.NET • Develop ASP.NET web applications on any given scenario.
	DSC (UG-CS-606 A): Elective B - JAVA Programming II	<ul style="list-style-type: none"> • Program using graphical user interface with Swing classes • Handle different kinds of events generated while handling GUI components • Create programs using menus and dialog boxes • Program to create applets • Understand advanced java concepts like JDBC, Java Beans
T. Y. B. Sc.	ELE- 501: Semiconductor Electronics	<ul style="list-style-type: none"> • Estimate the number of carriers at a given temperature for a semiconductor. • Understand the importance of doping to change carrier density.
	ELE 502: Advanced Digital System Design using VHDL	<ul style="list-style-type: none"> • Students will able to design digital circuits according to requirements. • Student will able to write VHDL code for digital circuit with the help of different modeling style

	ELE 503: Advanced Microprocessor	<ul style="list-style-type: none"> • Student will be able to Aware about the microprocessor and its architecture considerations & capable to analyze the operating modes • Understand the assembly language programming • Student will be able to understand the advanced microprocessor 80386 and operation of paging mechanism. • To gain the Knowledge about the Pentium series processor
	ELE – 504: Electronic Instrumentation	<ul style="list-style-type: none"> • Understand the concept of measurement systems and its various characteristics • Learn about different types of transducers and their working principle. • Know the different electronics measuring instruments and develop the skill to handle them. • Acquaint the knowledge of testing instruments
	ELE- 505 : Medical Electronics	<ul style="list-style-type: none"> • Familiarize with human assist devices • Learn biological signals present in human body • Learn the various blocks of biomedical sensors • The electrodes which are normally used to measure the biological signals • Understand the working principles of various therapeutic and monitoring systems • Understand recording and analysis of prominent biosignals of human • Understand the measurement and analysis techniques for physiological parameters • Understand the patient imaging and monitoring systems
	ELE 506 (A): Embedded C	<ul style="list-style-type: none"> • Learn structure oriented programming concepts required in all other languages. • After completion of this course students are able to built real world applications based on embedded system and automation.
	ELE – 601 Power Electronics	<ul style="list-style-type: none"> • Have fundamental knowledge of semiconductor power electronic device • Can apply this knowledge for designing power electronic circuits
	ELE 602: Consumer Electronics	<ul style="list-style-type: none"> • Understand the various type of microphones and loud speakers. • To identify the various digital and analog signal. • Understand the various type of consumer goods and acquaint the skill of fault findings. • Develop the skill of electronics appliances like Set Top Box, CATV and Dish TV, water purifier, Airconditioner etc. • Acquaint the knowledge of different types of Television Technology
	ELE 603: Microprocessor Interfacing Techniques	<ul style="list-style-type: none"> • Student will be able to Aware about the concept of microprocessor and its interfacing & Capable to analyze the operation and priorities of Interrupt • Understand the concept of memory mapping & DMA • Student will be able to understand the ADC & DAC interfacing • To gain the Knowledge about the programmable interval timer and communication interface 8251 & analyze the operating modes
	ELE 604: Computer Network	<ul style="list-style-type: none"> • Recognize the technological trends of Computer Networking. • Discuss the key technological components of the Network. • Evaluate the challenges in building networks and solutions to those
	ELE 605: Embedded Systems	<ul style="list-style-type: none"> • To gain the knowledge about the 8051-microcontroller programming such as timer & counter and serialport programming • Understand the basic concept of interfacing with microcontroller • Understand the interfacing principle with Stepper motor and temperature sensor

		<ul style="list-style-type: none"> To gain the Knowledge about the serial peripheral interface and two wire interface
	ELE-606 (B) Antennas and Wave propagation	<ul style="list-style-type: none"> The student will be able to Understand how the electromagnetic wave propagate from an antenna Learn the concept of RF feeding to an antenna To calculate the various parameters of antenna to know its efficiency. Study the various types of antennas used in recent communication systems. Understand the wave propagation through space.
T.Y.B.Sc.	MTH – 351: Metric spaces	<ul style="list-style-type: none"> A metric space is a set for which distances between all members of the set are defined It is used in fixed point theorem and mapping principles. To study continuous functions on metric spaces. To learn connected metric spaces. To understand complete metric spaces. To study compact metric spaces.
	MTH – 352: Integral Calculus	<ul style="list-style-type: none"> Used estimates areas and volumes Applied in engineering Estimates bounds of integrations Introduce proper and improper integral Used to find solution of LPP.
	MTH – 353: Modern Algebra	<ul style="list-style-type: none"> Algebra is science of abstract thinking It is used in computer science To understand concept of normal subgroups and permutations To learn quotient groups and polynomial rings and ideals
	MTH – 354: Lattice theory	<ul style="list-style-type: none"> Primary information of sets, logic and probability theory. Used in discrete mathematics, computer science and IT. Introduces posets and chains. To understand lattices and various types of lattices. To learn about ideals and homomorphism.
	MTH-355(A): C-Programming	<ul style="list-style-type: none"> Illustrate the flowchart and design analgorithm for a given problem and to develop IC programs usingoperators Inscribe C programs that use Pointers toaccess arrays, strings and functions. Exercise user defined data typesincluding structures and unions to solve problems Exercise files concept to show input andoutput of files in C
	MTH-356(B): Vector Calculus	<ul style="list-style-type: none"> Study of Rate of change of vectors is vector calculus. It is widely used in Physics and Mechanics. To study various operations on vectors. To learn about differentiation and integration of vectors. To understand the concepts of gradient, divergence and curl. To know the importance of Stokes theorem and Gauss divergence theorem.
	MTH-361: Measure and Integration	<ul style="list-style-type: none"> It is used in probability abd analysis To understand measurable sets and functions To learn Lebegue integrals and solve examples To learn Fatou's lemma and Lebegue dominated
S	MTH-362: Method of Real Analysis	<ul style="list-style-type: none"> It is a branch of pure mathematics. It is useful and Statistics, Probability, Operations Research, etc. To study sequences.

		<ul style="list-style-type: none"> • To study series of real functions. • To know the Fourier series. • To study half range series.
	MTH-363: Linear Algebra	<ul style="list-style-type: none"> • It is one of the branch of algebra • Mostly used in electrical engineering • To understand vector spaces • To learn about basis, dimension • To understand eigen values and eigen cectors • To learn about linear transformation
	MTH-364: Ordinary and Partial differential equations	<ul style="list-style-type: none"> • To understand the importance of ordinary and partial differential equations. • It is used in solving many problems of engineering and physics. • To learn about exact differential equations and various types. • To learn about second order linear differential equations. • To study series method of solution. • To study about linear partial differential equations.
	MTH-365(A): Optimization Techniques	<ul style="list-style-type: none"> • Optimization techniques is a branch of Operations Research. • Used in solving problems in times schedule formation • It is used in Production engineering, Mathematics of finance, Networking, etc. • To study the job assignments • Introduces game theory and used to solve competitive games • To know the fundamentals of game theory.
	MTH-366 (A): Applied Numerical Methods	<ul style="list-style-type: none"> • It is a branch of numerical analysis • It is used for solving a system of equations and used in all branches of engineering. • To solve a system of linear equations. • To learn numerical differentiation and integration. • To learn about interpolation polynomials. • To apply numerical methods for differential equations.
T.Y. BSc	PHY501: Mathematical Physics	<ul style="list-style-type: none"> • Have knowledge about, and being able to use, advanced mathematical methods and theories on various mathematical and physical problems. • Use mathematical formulations, analyses and models to obtain insight in specialized areas of Physics. • Be able to apply skills of mathematical, statistical and physical modeling in applied fields and on technological problems. • Be able to carry out, present and document a comprehensive independent work, demonstrating command of the terminology of the subject area. • Identify different special mathematical functions. • Apply techniques of vector analysis, such as gradient of scalar, divergence of vector, curl of vector, • To the study of special functions of mathematical physics • To understand Cartesian (X, Y, Z), Spherical polar (r, θ, ϕ) and Cylindrical (ρ, ϕ, z) co-ordinate systems and their transformation equations. • To understand expression for gradient, divergence, curl and Laplacian in curvilinear, spherical polar and cylindrical co-ordinate systems. • Solve partial differential equations with appropriate initial or boundary conditions with Green function techniques • Have confidence in solving mathematical problems arising in physics by a variety of mathematical techniques

		<ul style="list-style-type: none"> • To understand special relativity theory and to solve Lorentz transformation equations, Length contraction, time dilation,
	PHY 502: Classical Mechanics	<ul style="list-style-type: none"> • Students learned how Newton's laws of motion is important in science and what is its Limitations. • The ability of students developed how to differentiate different types of forces. • They understand strategy of satellite launching on the basis of equation of orbit using Kepler's laws. • They learned how to calculate virtual work and its relation with virtual displacement. • The ability of students developed how to use Lagrange's equation in the different type of motion. • They understand important of phase space and how to derive Hamilton's canonical equation of motion. • They understand how Hamilton's equation is more important than Lagrange's equation and Newton's mechanics. • The ability of students developed how to use Hamilton's equation in the different type of motion.
	PHY 503: Atomic and Molecular Physics	<ul style="list-style-type: none"> • To study Quantum numbers, physical interpretation of quantum numbers, electron spin, spin orbit interaction, spectral terms. Spectra of single valence electron system (sodium), selection rule, Pauli's exclusion principle. • To understand basics of Spin-spin and orbit-orbit interaction, LS & JJ coupling schemes, singlet triplet separations, p-d & s-p configuration in L-S coupling, Lande interval rule. • To study Zeeman Effect, Normal Zeeman Effect, Anomalous Zeeman effect, Paschen Back effect for single valence electron system.
	PHY 505: Solid State Physics	<ul style="list-style-type: none"> • Be able to account for interatomic forces and bonds. • Have a basic knowledge of crystal systems and spatial symmetries • Be able to account for how crystalline materials are studied using diffraction, including concepts like the Ewald sphere, form factor, structure factor, and scattering amplitude. • Be able to perform structure determination of simple structures • Understand the concept of reciprocal space and be able to use it as a tool know the significance of Brillouin zones • Know what phonons are, and be able to perform estimates of their dispersive and thermal properties • Be able to calculate thermal and electrical properties in the free-electron model and know Bloch's theorem and energy band and distinction between metals, semiconductors and insulators • Be able to estimate the charge carrier mobility and density. • Be able to account for what the Fermi surface is and how it can be measured. • To understand Lattice heat capacity and to compare Classical theory, Einstein's theory, Debye's theory of specific heat of solids. • To apply techniques of X-Ray Diffraction and UV Spectroscopy to study crystals.
	PHY- 506(A): Technical Electronics- I	<ul style="list-style-type: none"> • To describe construction and specification of resistors, capacitors, inductor, transformers of different types along with switches and relay. • To study construction of LED, LCD, LDR, photodiode, phototransistor along with applications.

		<ul style="list-style-type: none"> • To understand PCB in view of (idea, advantages, steps of making, precautions) along with principle of Photolithography • To study construction and working of different types of transducers including LVDT. • To study construction and working operation of different types of D to A and A to D converters. • Study of measuring instruments like CRO, function generator, DFM, DVM.
	PHY- 507 Practical I	<ul style="list-style-type: none"> • Students understand how to find Y and η by Searl's method. • Students understand how to find moment of inertia by Bifilar suspension. • Students understand how to use Searl's Goniometer. • Students understand how to calculate wavelength using Lloyd's single mirror. • Students understand how to compare resistance of filament of bulb with its temperature. • Students experimentally understand the determination of circular aperture of LASER • Students experimentally understand the determination of velocity of sound using ultrasonic Interferometer. • Students understand how to calculate resistivity by four probe method. • Students understand how to find fill factor & efficiency of solar cell. • Students understand how to study I-V Characteristics of solar cell.
	PHY- 508 Practical II	<ul style="list-style-type: none"> • Students understand how to used UJT as relaxation oscillator. • They learned how to measure Hall coefficient of given sample. • They understand how to used CRO for Time and Frequency determinations. • They learned how to study R-2R ladder without OP-AMP.. • They learned how to used OP AMP for square and triangular wave developed. • Students understand how to find resistance using JFET. • Students understand how to use function generator. • They developed ability of connecting circuits in proper way& how to make PCB. • Students understand how to find cut off frequency using RC filter. • Students are understand how to study multiplexer.
	PHY- 509 Project 1	<ul style="list-style-type: none"> • To allot a project • Preparation of a primary project report (topic selection, literature Search Strategy, literature Review, ProjectPlanning). • Further PPT presentation of concern project is expected from students.
	PHY 601: Quantum Mechanics	<ul style="list-style-type: none"> • Apply the concept and use of knowledge of Quantum Mechanics to real life problems. • Understanding of the course will create scientific temperament
	PHY-602: Quantum Mechanics	<ul style="list-style-type: none"> • To develop a knowledge and understanding of the concept that quantum states live in a vector space. • To solve quantum mechanics problems. • Formulation of Schrödinger equation-time dependent and time independent forms. • To derive energy Eigen value and eigen functions particle in a box and 1-D harmonic oscillator. • To formulate the Schrödinger wave equation in terms of spherical polar co-ordinates for its application to solve Hydrogen atom problem. • To understand Postulate of quantum mechanics, operators and use of commutation and commutative algebra of operators to solve quantum

		mechanics problem.
	PHY 603: Nuclear Physics	<ul style="list-style-type: none"> • Students understand different composition of nucleus. • They understand relation between Binding energy and packing fraction. • They understand the nature of nuclear force. • They understand concept of radioactivity and its different concept of life and its various applications. • They understand different nuclear models and them limitation. • They understand type nuclear reaction on the basis of exoergic or endoergic concept. • They understand nuclear fission and nuclear fusion reactions on the basis mass gain or mass loss of nucleus. • They understand different nuclear reactor and the function of working.
	PHY 604: Modern and Applied Physics	<ul style="list-style-type: none"> • Apply the concept and use of knowledge of Modern and Applied Physics to understand and solve the real lifeproblems. • Understanding of the course will create scientific temperament. • To understand basics of Fiber Optics. • To understand basic idea of holography
	PHY- 605: Elements of Material Science	<ul style="list-style-type: none"> • Get knowledge of Historical perspectives of materials science. • To classify between advanced materials, Smart materials, Nano structured Materials. • To understand chemistry of organic material and its classification. • To understand and learn the Mechanical Properties, Thermal Properties, Electrical Properties, and Magnetic Properties of materials. • To understand the basic concept of Dislocations and Plastic Deformation. • To understand Atomic Diffusions and its Mechanism. • To state Fick's Law (Ist and IInd Law). • To understand basics of phase diagram, its classifications, and its interpretation. • To study Binary Phase Diagram for: i) Sugar-Water, ii) NaCl-water, and Alloys forming Eutectic: Pb –Sndiagram
	PHY- 606(A): Technical Electronics- II	<ul style="list-style-type: none"> • To describe sound system including types of microphones and speakers. • To study public address system and its installation along with different phonic systems and CD player. • To study bio medical instruments including various types of electrodes, ECG, and ultrasonography. • To study peizo-electric and optoelectronic transducers along with chemical sensors (PH, gas, humidity). • To understand the operating principle, block diagram and features of modern home appliances (MicrowaveOven, Cellular phone, Washing machine, Electronic Weighing System)
	PHY- 607 Practical III	<ul style="list-style-type: none"> • Students understand how to calculate Surface tension by Quinke's method. • Students understand how to calculate Planck's constant using Photocell. • Students understand how to calculate work function of material of cathode using Photocell. • Students understand how to calculate Planck's constant using LEDs.. • Students understand verification of inverse square law using Photocell. • Students understand how to study characteristic of G.M.Counter. • Students understand how to study I-V characteristics using Photocell. • Students understand calculation of viscosity by rotating cylinder method.

		<ul style="list-style-type: none"> • Students understand determination of ‘g’ by conical pendulum. • Students understand how to find Boltzmann constant using diode.
	PHY- 608 Practical IV	<ul style="list-style-type: none"> • Students understand how to calculate temperature coefficient using Thermister.. • They understand how to used OP AMP as subtractor. • They learned how to used CRO for Time and Frequency determinations. • They understand how to find frequency & duty cycle using IC-555. • They understand how to used OP AMP as differentiator. • They understand how to used OP AMP as integrator. • Students understand how to find specific heat of grafite. • Students understand how to study DAC using OP-AMP. • They learned the function of LDR and its used practical. • They learned how to used IC 7490 as different counting modes.
	PHY- 609: Project work – II	<ul style="list-style-type: none"> • To check the part of experimental work done by the candidate on the given topic. • To made discussion with student on the results obtained from experimentation. • To guide student for writing the conclusion of the project based on the results obtained so far. • Further students are advice to prepare PPT presentation of their concern project.
T.Y.B.Sc.	Z00 351: Endocrinology	<ul style="list-style-type: none"> • Animal type - Leech • Introduction of anatomy and physiology of non-chordates Animals • Understanding the characters of leech • Classification of the Leech with taxonomic keys • Identification of the characters of phylum Annelida with its characters • Knowledge of the economic importance of Leech.
	Z00 352: Cell and Molecular Biology	<ul style="list-style-type: none"> • Understanding the structure and function of cell • Comparison of the structure and function of different cell organelles • Explanation of the molecular organization of nucleic acids.
	Z00 353: Mammalian Histology and Physiology I	<ul style="list-style-type: none"> • Introduction to the different methods of histology • Study of the physiology of different tissues • Understanding of the different systems of mammals. • Knowledge of the mechanism of digestion and respiration
	Z00 354 Biotechnology	<ul style="list-style-type: none"> • Understanding the nature of the different carbohydrates, lipids and nucleic acids. • Study of the different biomolecules and important role of biomolecules in life.
	Z00 355 Public Health and Hygiene	<ul style="list-style-type: none"> • Study of the different methods classification of animal. • Understanding the hierchic classification of frog and calotes • Explanations the geographical distribution of animals • Identification the different geographical regions.
	Z00 356 (B)Pest Management	<ul style="list-style-type: none"> • Identification of the different kinds of pests with the help of key, • Study of the control mechanism of pests w.r.t. life cycle.
	Z00 361 Study of Leech and Calotes	<ul style="list-style-type: none"> • Study of the Systematic position, habit, habitat and external characters of scoliodon. • Understanding the different systems of scoliodon • Study of the sense organs of scoliodon. • Explanation of the reproduction, fertilization and development of scoliodon. • Understanding the comparative account of skin, heart and aortic arches in different vertebrates.
	Z00 362 General embryology	<ul style="list-style-type: none"> • Introduction to the concept of embryology.

		<ul style="list-style-type: none"> • Understanding the structure of gametes and different types of female gamete. • Study of the chick embryology in detail with reference to various stages of development.
	Z00 363 : Mammalian Histology and Physiology II	<ul style="list-style-type: none"> • Explanation of the excretory system and excretion. • Understanding of the nerve impulses conducted at myelinated and nonmyelinated nerve fibre. • Study of the physiology of hearing and physiology of vision. • Study of the different endocrine glands, its structure and function.
	Z00 364 Research Methodology	<ul style="list-style-type: none"> • Introduction to the scientific approach of research. • To gain the knowledge of the research design • Study of the different types data analysis and data representation. • Understanding the component of research report/project. • Explanations of the parameters of research. • Study to write a letter to editor to publish research work.
	Z00 365 Microtechnique	<ul style="list-style-type: none"> • Study of the materials collected for micro processing • Understanding how the different fixatives works. • To study the theory of washing and dehydration process. • Study of blocks embedding and making, section cutting and affixing.
	Z00 356 (C) Applied Zoology III (Vermiculture, poultry and Fishery)	<ul style="list-style-type: none"> • Introduction to the vermiculture introduction and scope. • Study of the how the vermicomposting and vermiwash units are established. • Comparison of the different poultry breed, housing and equipment of poultry.
M.Sc. I:	CH-110: Physical Chemistry I	<ul style="list-style-type: none"> • Understand the terms eigen function, eigen value, operator and postulates of Quantum mechanics. • Learn parent –daughter relationship, application of radioactivity, NAA, IDA. Effect of radiation and units of radiation. • Learn the Fricke and ceric sulphate dosimeter. • Understand the terms and principles of chemical bonding. • To learn and understand the concepts behind electrochemical processes.
	CH-130: Inorganic Chemistry Paper I	<ul style="list-style-type: none"> • To understand the molecular orbitals and its orientation of transition metals. • Understand about geometry and shape of the molecule • Learn and find out bond order and dipole moments of the inorganic molecule. • Learn 18 electron rule and application. • Determine the point group of inorganic molecules. • Understand preparation and properties of transition metal carbonyls. • Understand concept of symmetry elements in molecules.
	CH-150 : Organic Chemistry I	<ul style="list-style-type: none"> • Understand and study the basics of reaction mechanism. • Understand SN^1, SN^2 and SN^i mechanism and stereochemistry. • Understand NGP by pi and sigma bonds, classical and non -classical carbocations.

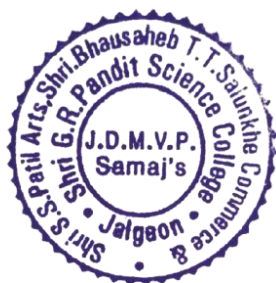
		<ul style="list-style-type: none"> • Understand alkylation and acylation reaction. • Compare the differ between types of addition, elimination and substitution reaction. • Study of reactions and characteristics of reactive intermediates.
	CH-190: Industrial Safety and GLP	<ul style="list-style-type: none"> • To study and understand various hazards in laboratory. • To create awareness regarding laboratory safety. • Understand handling of chemicals and hazard safety. • Learn about the use of Personal Protective Equipments. • Understand lab certifications and GLP.
	CH-210: Physical Chemistry II	<ul style="list-style-type: none"> • Understand the thermodynamic description of mixtures state function, exact, inexact differential. • Understand Maxwell relations, Gibbs- Duhem equation and Gibbs free energy. • Understand the statistical thermodynamics and various partition functions. • Understand the consecutive elementary reactions, rate determining steps, steady state approximation, pre-equilibria, Michaelis-Menten mechanism, Lindemann- Hinshelwood mechanism, chain reactions. • Understand the molecular spectroscopy: Rayleigh, Raman, electronic and Mossbauer and its application
	CH-230 -Inorganic Chemistry Paper II	<ul style="list-style-type: none"> • Learn mechanism in transition metal complexes. • Learn radius ratio rule and calculation of limiting radius ratio • Understand catalysis, types and properties of a catalyst. • Understand about classification and use of catalyst. • Understand about structure of atom, Hunds rule, Term symbol, calculation of microstates, orbitalselection rule. • Know metal complexes involved in biological systems. Vitamin-B12, Chlorophyll, Hemoglobin.
	CH-250 Name Reactions, Synthetic Organic Chemistry & Spectroscopy	<ul style="list-style-type: none"> • Learn various name reaction with example. • Use synthetic reagents of oxidation and reduction for solving the example. • Understand mechanism of rearrangements reaction. • Learns the basic principles and applications of Spectroscopy: IR, UV, NMR, CMR and Mass Spectrometry.

		<ul style="list-style-type: none"> • Solve problems of UV, IR and NMR.
	CH-290-General Chemistry	<ul style="list-style-type: none"> • Solve the problems on Chemometrics Mean and Standard deviation. • Learn theory of electro-gravimetric analysis, Electrolytic separation and determination of metals. • Know Instrumentation, of Voltammetry and its detectors. • Learn principle, and techniques of ultrapurity and trace analysis. • Learn Volta-metric Electrodes, Detectors, Amperometric Sensors, Amperometric Titrations. • Understand chemical Aspects of Nanomaterials.
	CH-P-1 : Physical Chemistry Practical	<ul style="list-style-type: none"> • conductometry. • Determine stability constant of a complex ion and standard free energy change ΔG and equilibrium constant by potentiometry. • Investigate the rate constant for depolymerization , energy of activation and order of the reaction • Calculate Hammett constant and amount of aspirin in the given tablet by pH measurement. • Determine specific rotation and percentage of two optically active substances by polarimetrically.
	CH: I-1: Practical course Inorganic Chemistry:	<ul style="list-style-type: none"> • Perform gravimetric and volumetric analysis ores. • Analyze binary mixtures by gravimetric and volumetric method. • Prepare various inorganic complexes and determination of its Percent purity. • Analyze iron from given drug sample and calcium in milk sample. • Perform paper chromatographic technique.
	CH –O- 1 Organic Chemistry practical	<ul style="list-style-type: none"> • Know uses of chemistry software s like ISI draw, Chem Draw, Chem sketch. • Draw the different structure of organic compound. • Perform Thin layer chromatography technique for completion of reaction. • Perform single and two stage preparation. • Apply knowledge of Green principle for organic synthesis • Make use of soxhlet extractor and steam distillation assembly for Purification of organic compound.
M.Sc. II	Organic CH 350: Organic Reaction Mechanism	<ul style="list-style-type: none"> • Compare the major and minor product of variety of organic reaction. • Understand accepted mechanism of organic reaction including all intermediates • Solve the problems on Taft and Hammett constant.

		<ul style="list-style-type: none"> • Understand Concave upward and downward deviation. • Learn the types hydrolysis of ester. • Solve problems on Anchimetric assisted reaction. • Understand and solve reactions based on free radical and photochemical mechanism. • To Study the principles of photochemistry and free radicals
	CH-351: Spectroscopic Methods in Structure Determination	<ul style="list-style-type: none"> • Understand principle and instrumentation of ^1H NMR, ^{13}C NMR and Mass spectroscopy. • Investigate structures on these techniques. • Resolve structure of organic compounds by 2D NMR techniques. • Analyze reaction sequences by using spectroscopic technique
	CH-352 (Organic stereochemistry)	<ul style="list-style-type: none"> • Understand the basic concepts of stereo chemistry • Assign structure of organic molecules. • Learn Three dimensional structure of cyclic and acyclic compounds • Use selectivity of reagents for chemical reactions. • Compare the major and minor product of asymmetric synthesis.
	CH-353(A): Heterocyclic Chemistry	<ul style="list-style-type: none"> • Understand basic Pharmacokinetics of drugs, anti Microbial drugs, Antifungal, Antibacterial, antiviral, antiprotozoals. • Understand Important Terms –Receptor, therapeutic index, bioavailability, Drug assay and Drug Potency used in medicinal Chemistry..
	CH-450: Chemistry of Natural Products	<ul style="list-style-type: none"> • Know concept of biogenesis of natural products. • Classify sources of various vitamins. • Learn biological importance of vitamins B1, B2, B6, folic acid, B12, C, D1, E, K1, and K • Understand and apply the role of enzyme in reactions. • Synthesize natural organic compounds by chemical methods. • Learn the stereochemistry of natural product.
	CH-451: Synthetic Methods in Organic Chemistry	<ul style="list-style-type: none"> • Understand Transition metal complexes in organic synthesis, Grubb s catalyst, Ziegler Natta catalyst • Design the organic compounds by use of synthetic reagents • Understanding role of Umpolung in organic synthesis. • Understanding Protection and deprotection in the synthesis of polypeptide and polynucleotide.

		<ul style="list-style-type: none"> • Know basic principles of green chemistry and design green synthesis. • Use ecofriendly green reagents, solvents, catalysts and reaction conditions. • Know the main synthetic routes and reactivity for variety of heterocyclic compounds and applications
	CH-452: Heterocyclic Chemistry, Chiron approach, Chiral drugs and Medicinal Chemistry.	<ul style="list-style-type: none"> • Understand Important Terms –Receptor, therapeutic index, bioavailability, Drug assay and DrugPotency used in medicinal Chemistry. • Study the synthesis and reactions of various heterocyclic compounds. • Understand drug discovery and importance of heterocycles in drug. • Understand importance and uses of heterocycles in industry and technology.
	CH-450: Chemistry of Natural Products	<ul style="list-style-type: none"> • Know concept of biogenesis of natural products. • Classify sources of various vitamins. • Learn biological importance of vitamins B1, B2, B6, folic acid, B12, C, D1, E, K1, and K • Understand and apply the role of enzyme in reactions. • Synthesize natural organic compounds by chemical methods. • Learn the concept of secondary metabolites, mevalonate and shikimate pathway
	CH-O-2 (Organic Chemistry Practical- II)	<ul style="list-style-type: none"> • Separate organic compounds in different phases. • Perform qualitative test to analyze functional group of organic compounds. • Learn distillation technique. • Detect elements N, S, and X in organic compounds. • Isolation and separation of some natural products • Spectral interpretation of UV, IR, NMR, CMR and Mass Spectra of different organic compounds
	CH -O-3: (Organic Chemistry Practical- III)	<ul style="list-style-type: none"> • Perform two, three and four stage preparation. • Synthesize compounds using green chemistry principles • Draw the reaction mechanism. • Purify the organic compounds by crystallization. • Perform chromatographic technique to check completion of reaction. • Apply the knowledge about different reaction conditions. • Survey literature for the topic of the project..

	CH-O-4: Short Research Project	<ul style="list-style-type: none"> • Survey literature for the topic of the project. • Learn to apply reaction conditions for synthesis, isolation of product and give mechanism. • Handle instruments for analysis and discuss their experimental results. • Used ICT tools to prepare project reports and present it using Power point presentation. • Work within a small team to achieve a common research goal.
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PRINCIPAL
J.D.M.V.P. Samaj's
Shri. S.S. Patil Arts, Shri. Bhausaheb T.T. Salunkhe
Commerce and Shri. G.R. Pandit Science
(Nutan Maratha) College, Jalgaon. (M.S.)