

MAHATMA GANDHI VIDYAMANDIR'S ARTS, SCIENCE AND COMMERCE COLLEGE HARSUL

TAL- TRIMBAKESHWAR, DIST- NASHIK, MAHARASHTRA, PIN- 422204 RE-ACCREDITED BY NAAC WITH 'B' GRADE AFFILIATED TO SAVITRIBAI PHULE PUNE UNIVERSITY, ID NO. PU/NS/ASC/048/(1993)



Criterion-2 Teaching- Learning and Evaluation

KI :2.6 Student Performance and Learning Outcome

QIM: 2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated

Website - <u>https://mgvharsulsr.kbhgroup.in/</u> Phone - 02558 - 227292 Email - <u>harsulcollege@gmail.com</u> Fax - 02558 - 227292

MAHATMA GANDHI VIDYAMANDIR'S ARTS, SCIENCE AND COMMERCE COLLEGE HARSUL, DIST- NASHIK.

[Affiliated to Savitribai Phule Pune University of Pune]



Declaration

This is to declare that the information, reports, true copies of the supporting documents, numerical data, etc. submitted/presented in this file is verified by Internal Quality Assurance Cell (IQAC) and is correct as per the record. This declaration is for the purpose of NAAC accreditation of HEI for 3rd Cycle period 2017-18 to 2021-22

Date: 20/06/2023

Place: Harsul

Dr. A. K. Aher

IQAC Coordinator CO-ORDINATOR IQAC Arts, Science & Commerce College, Harsul, Tal.Tryambakeshwar, Dist.Nashir



Dr. M. R. Deshmukh

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HARSUL, TAL .: TRYAMBAKESHWAR, DIST .: NASHIK-422204 Ph. : 02558-227292

2.6.1 [QIM] Programme Outcomes (POs) and Course Outcomes (COs) for allProgrammes offered by the institution are stated and displayed onWebsite and attainment of POs and COs are evaluated

Programme Outcomes (POs) and Course Outcomes (COs)



Mahatma Gandhi Vidyamandir's Arts, Science And Commerce College

Harsul, Tal-Trimbakeshwar, Dist : Nashik

Programme Specific Outcomes,

&

Course Outcomes of B.A

Department of Economics

Academic Year

2021-22

Programme Specific Outcomes: B.A. Subject (Programme code))

Name of the Department: Subject				
	Program Specific Outcomes			
	At the end of the programme, student will be able to			
1	Understand the basic terms, concepts and theories in economics.			
2	Demonstrate the ability to explain charts, diagrams and graphs.			
3	Identify the socio-economic issues and find solutions for the problems.			
4	Apply professional ethics in day-to-day economic activities.			
	Understand research technique, methods to collect primary and secondary data and analyseit.			
5				
6	Acquires writing skills and ability develops of economic way of thinking			

Course Outcomes: B.A. Subject (Programme code))

Class: F.Y.B.A.			
Semester-I			
Paper	Course code aperCourse code & course titleAt the end of the course, student will be able to		
Ι	UAEco (CC-1A-11151) Indian Economic Environment I	JAEcoIdentify recent developments in the Indian and world economy.JAEcoInterpret the contemporary issues in economic environment.1A-11151)Analyse current scenario in various sectors in the economy.IndianGain knowledge about various concepts of cropping pattern and technology.Understand the Industrial policies its effect on sustainable agricultural development.IAcquire knowledge about agricultural marketing, rural Entrepreneurship.	
		Semester-II	
Ι	UAEco (CC-1B-12151) Indian Economic Environment II	Discuss and debate on the various issues and challenges facing the Indian Economic Environment. Describe the developments such as MSMEs, Digital Economy, E-Banking, BPO & KPO. Develops the students for varied competitive examinations. Making awareness about self-employability through banking environment. Understand challenges of Indian economy and the factors affecting	
		economic environment. Acquire comparative knowledge about Indian and world economy	

Class : S.Y.B.A.				
	Semester-III			
Paper	Course code & course title	At the end of the course, student will be able to		
тт	UAEco	Analyse the structure and functions of the Indian financial system.		
111	(CC-1C-23153)	Comment upon commercial banks		
	Financial	Discuss the role of co-operative bank in rural area		
	System I	Able to define and differentiate Indian money market and capital market		
		Enlist the importance of foreign exchange market		
		Comment upon the financial institutions like UTI, LIC, GIC		
		Semester-IV		
III	UAEco	Define and understand the role of the Reserve Bank of India in financial system.		
	(CC-1C-23153)	Identify the role of other financial regulators like SEBI & IRDA		
	Financial	Comment upon the International Financial Institution such as IMF, IBRD,		
	System II	Describe the recent developments in Indian Financial Sector		
		Identify the objectives and outcomes of changing landscape of banking sector in India		
		Comprehend the concepts of Insolvency and Bankruptcy, Alternate source of finance, risk management in banking sector.		

Class : T.Y.B.A.					
	Semester-V				
Paper	Course code & course title	At the end of the course, student will be able to			
III	UAECO (CC-1E 35153) Indian Economic Development I	Differentiate between economic growth and economic development.Identify the characteristics of a developing country and developed country.Comment upon India as an emerging economyDebate and discuss various facets of constraints in development processElaborate role of human resources in economic developmentAnalyze various Development Index like Human Development Index, Physical Quality of Life Index, Gender Development Index, Gender Inequality Index, Multidimensional Poverty Index			
		Semester-VI			
Paper	Course code & course title	At the end of the course, student will be able to			
Ш	UAECO (CC-1E 35153) Indian Economic Development II	Discuss the features, needs and objectives of economic planningElaborate the role of NITI AayogAnalyse the importance of sustainable developmentComment upon sustainable development goals and current scenario of SDG in IndiaUnderstand the relation between environment and economic development			
		Discuss the environment policies in India and global warming concept			



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Programme Specific Outcomes & & Course Outcomes of B.A.

Department of English

Academic Year- 2021-22

Programme Specific Outcomes: B.A. English

English Program Specific Outcomes				
	English Program Specific Outcomes			
1	PSO1 : Students will be able appreciate, construe and comprehend the major and minor forms of English literature.			
2	PSO2 : Students will have developed a leaning towards English literature and language.			
3	P SO3 : Students will be well informed about the literary theories, terms and concepts in criticism and able to apply the critical theories.			
4	PSO4 : Students will be able to use English Language effectively in formal and informal communications.			
5	PSO5 : Students will be able to write creatively.			
6	PSO6 : Students will be able to employ the knowledge of English by enhancing Listening, Speaking, Reading and Writing skills.			

Class : F.Y. B A Semester-I UAE (ENG-11011) & II				
			Paper	Course Code & Course Title
1	Compulsory	After completion of this course students will be able to		
English (11001)			English (11001)	CO 1: Identify and explain the basic literary components of the prescribed texts.
		CO 2: To develop the skill of the understanding all language structures in the prescribed texts.		
		CO 3 To encourage students to develop language skills		
		CO 4: Develop the critical thinking to understand and analyse the content of the prescribed textbooks.		
		CO 5: Employ the knowledge of English grammar and vocabulary for effective communication.		
1	Compulsory	CO 1: Demonstrate an understanding of the salient features of various		
	English	literary genres and express the understanding in various modes of		
	(12001)	communication		
		CO 2: Explain the given literary text with reference to the ideas and		
		values reflected in prescribed literary texts.		
		CO 3: Illustrate the figure of speech mentioned in the prescribed poems.		
		CO 4: To practice the dialogue writing for effective communication.		
		CO 5: To develop creative abilities of students through writing		
		compositions.		
2	Optional English	CO 1: To understand and explain the minor forms of literature in English		
	(11331)	CO 2: Evaluate the creative use of language in literature.		
		CO 3: To study the prescribed texts and understand the different literary ideas.		
		CO 3: To explain the different components of linguistics.		
		CO 4: To study better pronunciation of English and speak correctly.		
2	Optional English	CO1: Explain the basics of literature and language and develop an		
	(12331)	integrated view about language and literature		
		CO 2: Identify minor forms of literature in English		
		CO 3: Judge the creative use of language in literature		
		CO 4: Experiment better pronunciation and speak English correctly.		
		CO 5: Use English to enhance their job potential by improving their		
		language skills		

Class : S.Y. B A			
Semester-III UAE (ENG-25011) & IV			
Paper	Course Code & Course Title	Course Outcomes	
1	Compulsory English	CO 1: Identify basic features of effective communication CO 2: Comprehend the nuances of communication and soft skills.	
	(23001)	CO 3: Describe the vocabulary of English language. CO 4: Develop critical ability to the content of prescribed texts. CO 5: Instil universal values through best pieces of literature.	
1	Compulsory English (24001)	CO 1: Describe the word formation process of English languageCO 2:express thoughts in writing and orally effectivelyCO 3:Instil humanitarian values and foster sympathetic valuesCO 4: Apply own style of writing and develop cerative writing.	
2	S1- Appreciating Drama (DSC- 1A) 23331	 CO 5: Integrate various soft skills in personal and professional life. CO 1: Describe the elements and types of drama, and minor forms of Literature. CO 2: Summarize drama independently. CO 3: Relate literary and technical aspects of Drama. 	
2	S1-	CO 4: Categorize the literary and theatrical elements of DramaCO 5: Evaluate various literary aspects depicted in DramaCO 1: Define the elements and types of drama, and minor forms of	
	Appreciating Drama (DSC- 1B) 24331	Literature.CO 2: Classify literary and technical aspects of Drama.CO 3: Distinguish the literary and theatrical elements of DramaCO 4: Criticize various literary aspects depicted in DramaCO 5: Stage Drama by utilizing the knowledge acquired.	
3	S1- Appreciating Drama (DSC 1B) 243	 CO 1: To understand the basic concept related to the theory of poetry. CO 2: To comprehend the historical development of English Poetry as a form of literature. CO 3: To appreciate various poetic devices such as diction, rhythm, sound, meter and figures of speech. CO 4: To critically interpret prescribed poems. CO 5: To explicate different forms of poetry such as sonnet, ode, lyric and elegy independently. 	
3	S2 - Appreciating Poetry (DSC- 2A) (23332)	 CO 1: To describe the key terms and concepts in the theory of poetry. CO 2: To appreciate various poetic devices such as diction, rhythm, sound, meter and figures of speech. CO 3: To critically interpret prescribed poems. 	

		CO 4: To analyse unseen poems by applying the knowledge acquired		
		through the study of prescribed poems		
		CO 5: To develop the skill of writing poetry.		
4	G2- Advanced	CO 1: To understand the basic concepts of Linguistics.		
	Study of	CO 2: To identify and explain different aspects of phonetics and		
	English	phonology.		
	Language (SEC	CO 3: To comprehend different levels of linguistic analysis.		
	1A) (23333)	CO 4: To explain various terms and concepts in sociolinguistics		
		CO 5: To apply the knowledge acquired about stress, rhythm and		
		intonation for effective communication.		
4	G2- Advanced	CO 1: To comprehend different levels of linguistic analysis.		
	Study of	CO 2: To explain syntactic and semantic aspects of English language.		
	English	CO 3: To employ the stylistic approach to understand texts		
	Language (SEC	CO 4: To analyse the structure of English words from the pragmatic		
	1B) (24333)	perspective.		
		CO 5: To understand the varieties of English language.		
5	(SEC-2A)	CO 1: To develop the skill of using English for everyday communication		
	Mastering	CO 2: To acquaint the students with the verbal and non-verbal		
	Communication	communication		
	Skills (23334)	CO 3: To develop interest among the students to interact in English with		
		others		
		CO 4: To create opportunities to access exposure of speaking in various		
		contexts		
5	(SEC-2A)	CO 1: To acquaint and familiarize the students with soft skills		
	Mastering	CO 2: To develop interest among the students to interact in English		
	Communication	Suggestions to Teachers		
	Skills (24334)	CO 3: To make students effective communicator through vocabulary		
		building.		
		CO 4: To encourage students to develop communication skills through		
		technology.		

Class : T.Y. B A				
Semester- V UAE (ENG-35011) & VI				
Paper	per Course Code Course Outcomes			
	& Course Title			
1	Compulsory	CO 1: Explain different ideas and values imparted in prescribed texts.		
	English	CO 2: Learn the different skills and strategies of effective communication.		
	(35001) CO 3: Use the practical writing skills required in working environment.			

		CO 4: Compare different written text to study the content, choice of words	
		& sentence structure.	
		CO 5: Integrate the basic human values learnt through the literary studies.	
1 Compulsory		CO 1: Identify the various aspects of English grammar and vocabulary.	
	English	CO 2: Understand the different types of paragraph for creative writing.	
	(36001)	CO 3: Learn different skills and techniques for personality development	
		CO 4 Integrate the life skills and values for better prospects in life.	
		CO 5 Use the practical writing skills required in working environment	
2	Appreciating	CO 1: Describe novel as a literary form	
	Novel (35331)	CO 2: Interpret a Novel.	
	(DSE-1C)	CO 3: Classify various thematic structures depicted in the novel.	
		CO 4: Distinguish between various types of fiction.	
		CO 5: Formulate his own style of writing	
2	Appreciating	CO 1: Define novel as a literary form	
	Novel (36331)	CO 2: Summarize a Novel.	
	(DSE-1D)	CO 3: Relate sociocultural issues depicted in the novel.	
		CO 4: Differentiate between classical and popular fiction.	
		CO 5: Evaluate a novel critically	
3	Introduction to	CO 1: Comment upon the basic components of Literary Criticism.	
	Literary	CO 2: Define the Criticism and enlist the characteristics of Criticism	
	Criticism	CO 3: Illustrate Classical Critical approaches	
	(35332) (DSE-	CO 4: Discuss and describe historical development of Critical Theories	
	2C	and Critics.	
		CO 6: Interpret literary works according the critical approaches	
3	Introduction to	CO 1: Provide a brief account of various Critical Terms.	
	Literary	CO 2: Demonstrate the knowledge of Modern Critical Theories	
	Criticism	CO 3: Summarize the New Criticism and its exponents	
	(36332) (DSE-	CO 4: Encapsulate various critical approaches and theories.	
	2D	CO 5: Competent enough to critically analyze literary works.	
4	Enhancing	CO 1: Get the awareness of career opportunities available to them.	
	Employability	y CO 2: Identify the career opportunities suitable to them.	
	Skills (35333)	CO 3: Understand the use of English in different careers.	
	(SEC-1C)	CO 4: Develop competence in using English for the career of their choice	
		CO 5: Use English effectively in the career of their choice	
4	Enhancing	CO 1: Identify the career opportunities suitable to them.	
	Employability	CO 2: Understand the use of English in different careers.	
	Skills (36333)	CO 3: Enhance skills required for their placement.	
	(SEC-1D)	CO 4: Use English effectively in the career of their choice.	

		CO 5: Exercise verbal as well as nonverbal communication effectively for	
		their career.	
5	(SEC 2-C)	CO 1. To equip the students with the social skills	
	Mastering Life	CO 2. To train the students interpersonal skills	
	Skills & Life	CO 3. To build self-confidence and communicate effectively	
	Values	CO 4. To Encourage the students to think critically	
5	SEC 2-D)	CO 1: To learn stress management and positive thinking	
	Mastering Life	CO 2:. To enhance leadership qualities	
	Skills & Life	CO 3:. To aware the students about universal human values	
	Values	CO 4: To develop overall personality of the students.	

Head of the Department English

Principal



Arts, Science And Commerce College

Harsul, Tal-Trimbakeshwar, Dist : Nashik

Criteria II (2.6.1): Program Outcomes (2021-2022)

	Name: of Programme : Bachelor of Arts (BA)				
PO. No.	Program Outcomes				
	After successful completion of this program, a student will be able to	Graduate Attributes			
PO1	Express thoughts and ideas effectively in writing and orally.	Communication Skills			
PO2	Evaluate practices, policies and theories by following scientific approach to knowledge development.	Critical thinking			
PO3	Apply one's learning to real life situations.	Problem solving			
PO4	Draw valid conclusions and support them with evidence and examples.	Analytical reasoning			
PO5	Plan, execute and report the results of an experiment or investigation.	Research-related skills			
PO6	Work effectively and respectfully with diverse teams.	Cooperation/Team work			
PO7	Critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective.	Scientific reasoning			
PO8	Work independently, identify appropriate resources required for a project, and manage a project through to completion.	Self-directed learning			
PO9	Effectively engage in a multicultural society and interact respectfully with diverse groups.	Multicultural competence			
PO10	Adopt objective, unbiased and truthful actions in all aspects of work.	Moral and ethical awareness/reasoning			
PO11	Have a capability for mapping out the tasks of a team or an organization.	Leadership readiness/qualities			
PO12	Acquire skills to learn how to learn.	Lifelong learning			
PO13	Develop social, cultural and national integrity.	Reflective thinking			

	Criteria II (2.6.1): Program Specific Outcomes (2021-2022)						
	Name of Program (with Specialization) - Bachelor of Arts in Geography						
DO	Program Outcomes						
PO. No.	After successful completion of this program, a student will be able to	Graduate Attributes					
PSO1	Apply clear written and oral communication skills to communicate results of research	Communication skill					
PSO2	Demonstrate connections between everyday life at the local scale and the larger economic, social, and/or environmental forces that network them into a global community	Life long learning					
PSO3	Evaluate cultural, social, and environmental processes with a particular focus on space and place, critical theory, practical application, analysis and/or social justice.	Critical Thinking					
PSO4	Think in spatial terms to explain what has occurred in the past as well as using geographic principles to understand the present and plan for the future.	Disciplinary Knowledge					
PSO5	Present completed researches, including an explanation of methodology and scholarly discussion, both orally and in written form and, wherever possible, utilize cartographic tools and other visual formats.	Research Related Skills					
PSO6	Create the national integrity and fraternity among the students and social groups.	Moral and Ethical Values					

Criteria II (2.6.1): Course Outcomes (2021-2022)

Name of Program (with Specialization) - Bachelor of Arts in Geography

FYBA					
Title of Course	CO. No.	Course Outcomes			
	CO1	Explain principal terms, definitions, concept and theories of Physical Geography.			
	CO2	To acquaint the students with the utility and application of Physical geography in different regions and environment.			
Gg110 (A): Physical Geography (Sem -I)	CO3	Apply knowledge of basic Forms and types of Precipitation in Climatology.			
Geography (Sem1)	CO4	Describe composition and Structure of Earth Atmosphere.			
	CO5	Categorizes and compares different Waves and Tides.			
	CO6	Compares exogenous and endogenous processes in the formation of landforms.			
	CO1	Describe nature of man-environment relationship and human capability.			
	CO2	Identify and explain spatial distribution pattern of population and environment.			
Gg110 (B): Human	CO3	Apply knowledge of basic types and pattern of rural Settlements.			
Geography (SemII)	CO4	Students will acquaint the diversity of human society, regions and its interaction.			
	CO5	Explain basic problems of Indian agriculture.			
	CO6	Identify the different types of agriculture and its market utility.			
		SYBA Sem III			
	CO1	Explain principal terms, definitions and concept of environment geography.			
Gg: 210 (A)	CO2	Describe various environmental issues with their trend and impact.			
Environment	CO3	Identify the different Disaster management techniques with their application.			
Geography-I (G2) Sem	CO4	Identify & describe the various environmental issues in India and their management.			
III	CO5	design solution orientated environment projects			
	CO6	Apply and use of ICST for different disaster management			

	CO1	Describe geographical location, economic position and geological structure of Maharashtra.				
	CO2	Explain physiographic divisions and drainage system of Maharashtra.				
Gg-220 (A) Geography	CO3	Apply climatic related knowledge for cropping pattern.				
01 Manarashtra-1 (S-1) Sem -III	CO4	dentify soil types and their distribution in Maharashtra by using geographical map.				
Semi-III	CO5	Evaluate population growth and distribution in Maharashtra.				
	CO6	Recognize mineral power resources and major Industries distribution in Maharashtra				
	CO1	Explain principal terms, definitions, and concept of geomorphology.				
	CO2	Describe drainage network analysis and drainage basin relief analysis.				
Gg201 (A): Practical	CO3	Constructions of various map projection.				
Sem -III	CO4	Apply and locate statistical data on Thematic Maps.				
5011111	CO5	Reading & Design of maps according to statistical data.				
	CO6	Planning and executing field surveys.				
	CO1	Describe concepts of Disaster and its relations with Geography.				
SEC- A Course:	CO2	Explain terminology and concepts of Disaster Management.				
Applied course of	CO3	Demonstrate Disaster Management at local level.				
Disaster Management	CO4	Explain standard operating procedure on government for disaster Management.				
(SEC- A) SemIII	CO5	Suggest methods of protection from disaster and will be able to do Disaster Management.				
	CO6	Implement concepts of hazards in different areas and its Management.				
		SYBA Sem IV				
	CO1	Awareness of environment assessment methods				
Gg: 210(B)	CO2	Recognized the environmental laws				
Environment	CO3	Application of various conservation methods				
Geography-II (G2)	CO4	Identify the different Disaster management techniques with their application				
SemIV	CO5	Describe the Environmental Planning and their Management.				
	CO6	Identify the various Environmental Problems and their solutions.				

	CO1	Describe the Agriculture problems and prospects of Maharashtra.				
	CO2	Describe the Population and Settlement in Maharashtra				
Gg-220 (B) Geography	CO3	Camparison Population distribution and their distribution in Maharashtra				
of Maharashtra-II (S-1) SemIV	CO4	Evaluate prospectus in Industry in Maharashtra and the role of MTDC and Role of MIDC in industrial development in rural area of Maharashtra.				
	CO5	Aaply for all agriculture pattern in rural area				
	CO6	identify agriculture problems in variuos region				
	CO1	Explain basic concepts of Cartographic Techniques and Surveying.				
	CO2	Identify different types of Survey.				
Gg201 (B): Practical Ceography-II (S-2)	CO3	Demonstrate and preparation of Measurement of land.				
SemIV	CO4	Apply Surveying Techniques in Geography.				
	CO5	Explain & Demonstrate about Basic of GPS.				
	CO6	Conduct geographical field investigation and report writing.				
	CO1	Students will awared the skills of Travel & Tourism.				
SEC-B Course: Applied	CO2	Identify different types of travel and tourism.				
course of Travel &	CO3	Apply the basic skill of Tour planning and Skill development.				
Tourism Geography	CO4	Demonstrate and preparation of Tour planning.				
(SEC-B) SemIV	CO5	Conduct geographical field investigation and report writing.				
	CO6	Develop awareness of travel and tourism.				
		TYBA SemV				
	CO1	Understand the basic Concept of disaster management				
Ca210: Casewayhu of	CO2	Remember the role of geographical factors influencing the spatial distribution of disaster				
Gg310: Geography of	CO3	Differentiate manmade and natural disaster				
(G-3) SemV	CO4	Apply comprehensive knowledge and awareness about preparedness in Disaster Management				
	CO5	Explain the role of India in disaster management				
	CO6	Identify the climatic disaster				
Geography Of India	CO1	Describe geographical location, historical background, and international boundaries of India.				

(S-3) SemV	CO2	2 Illustrate physiographic divisions with drainage system of India.		
	CO3	Indicate climate, soil and natural vegetation in India.		
	CO4	Differentiate cultural setting of India.		
	CO5	Define Transportation and Communication in India.		
	CO6	Classify different natural resources and agriculture in India		
	CO1	Define the basic concepts and techniques of Geographical Analysis.		
Gg-301:CO2Interpret SOI Toposheet and IMD Weather Maps.				
Techniques of Spatial CO3 Apply the knowledge of Arial Photographs and Satellite images inpractical application		Apply the knowledge of Arial Photographs and Satellite images inpractical applications.		
Analysis,Surveying and ExcursionExplain the elementary Techniques in Geograph		Explain the elementary and principles on field of practical work. Apply Remote Sensing		
		Techniques in Geography.		
(S-4) Sem V	CO5	Built Geographical knowledge and its basic analysis in problem solving stage		
	CO6	Compute central tendency, dispersion and testing and Application of Hypothesis.		

	CO1	Understand the basic concept of research		
	CO2	Manipulate the basic framework of sampling, data collection and tabulation		
[SEC-2C]	CO3	Identify the Research Problem and apply specific techniques to solveit.		
Research Methodology	CO4	Use various sources of information for data collection.		
Sem V	CO5	Conduct the survey on various issues and write the Report.		
		TYBA Sem VI		
Ga210: Goography of	CO1	Explain the Geological disaster and their management		
Disaster Management –II	CO2	Identify Atmospheric disaster and their management		
(G-3) SemVI	CO3	Understand the relation of human activities with environmental degradation		

	CO4	Built the Geographical knowledge to deal with global environmental issue			
	CO5	Analyze the impact of acid rain and ozone depletion			
	CO6	Conduct case studies of disaster			
	CO1	Describe Cultural Setting of India.			
	CO2	Illustrate role of transport and classify types of transport in India.			
Gg: 320(B)	CO3	Identify development of Communication in India.			
Geography Of India	CO4	Differentiate the Resources of India.			
(5-3) Sem VI	CO5	Explain Significance of agriculture in Indian Economy.			
	CO6	Classify agro based industries and describe agricultural revolution inIndia			
	CO1	Explain geographical data and its basic analysis.			
	CO2	Illustrate meaning and description of central tendencies.			
Gg-301:	CO3	Calculate measures of Dispersion.			
Techniques of Spatial CO4 Describe meaning, definition, application and testing of hypothesis.		Describe meaning, definition, application and testing of hypothesis.			
Analysis,Surveying and	CO5	Distinguish concepts of correlation and regression.			
Excursion (S-4) Sem VI	CO6	Generate field excursion/village survey/ project report.			
	CO1	Understand the basic framework of data collection.			
	CO2	Classify research report.			
[SEC-2D]	CO3	Analyze the characteristics of good research report writing.			
Research wiethodology	CO4	Construct a structure and organization of research report.			
Sem VI	CO5	Discuss the methodology in research report writing.			
	CO6	Apply the knowledge of research methodology in case study.			



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Department of Hindi Programme Outcomes, Programme Specific Outcomes and Course Outcomes

Programme	Programme Outcomes (POs)	Programme Specific Outcomes	Course Name	Course	Course Outcomes (COs)
Name		(PSOs)		Code	
	PO 1: To develop Communication	PSO 1: To develop skills of	वैकिंबपक हंद		CO 1: To introduce students with excellent
	Skill and Personality development.	employability among the students.		1109 2	pieces of prose and poetry and create their
			veriu;r -1A Sem.		interest in Hindi Literature.
	PO 2: To develop reading and	PSO 2: To develop auditory, reading	I & II	12002	CO 2: To develop communication skills, group
	writing skills.	and writing capacity of Hindi language	(2019 Pattern)	12092	discussion, comparing and personality
		students.			development.
Bachelor of Arts	PO 3: . To introduce students about				CO 3: To introduce students about computer,
	job opportunities in translation.	PSO 3: To develop a sense of love and			DTP, Internet and career oriented courses.
		social commitment among the students			CO 4: At the end of the course, the student
	PO 4: To prepare students to go for	about the Nation.			should be able to communicate everyone, to
	detailed study of Hindi grammar this				participate in group discussion and competitions.
	is essential for government jobs.	PSO 4: To encourage the learning	S.Y.B.A. Hindi		CO 1: To familiarize them with different types of
		skills and library consciousness among		23093	short stories and poems in Hindi.
	PO 5: To develop integrated view	the students	ତ-2-ଡାସ୍ତୁତ୍ୟକ		CO 2: To develop integrated view about
	about language and literature in		का य, कहानी	24093	language and literature in them
	them	PSO 5: To inspire students to spread	तथा सातदाञ्क		CO 3: To prepare students to go for detailed
		and promote National language Hindi.			study of Hindi grammar this is essential for
			हद		government jobs
			Revised syllabus		government jobs.
			2020-21		
			SYBA Hindi S-1		CO 1: To introduce students the scientifically
			का यशा •r	23091	study of Hindi literature and its different terms.
					CO 2: To introduce students various types of
			साहय क भद		Hindi Literature, Drama, Novel and prose.



Arts, Science & Commerce College Harsul

Tal. Tryambakeshwar, Dist. Nashik – 422 204.(Affiliated to Savitribai Phule Pune University, Pune) ID No.PU/NS/ASC/048/(1993)
Phone No.: 02558 227292Mob. No.: 02558 227292Web : www.mgv.org.in/harsulcollegeE-mail : harsulcollege@gmail.com

Revised Syllabus 2020-2124091CO 3: To introduce students to the basics of literary criticism. CO 4: To encourage students to interpret literary works in the light of critical approaches.
SYBA Hindi S-2 म ययुगीन हंद का य तथा उप;:यास सा ह य / नाटक23092CO 1: To introduce students to the basics of novel as a literary form and create their interest in reading novels. CO 2: To develop interest among the students to appreciate and analyze drama. CO 3: To introduce students the middle ages of Hindi literature and literature.VIII.1 III.1CO 1: To introduce students about.iph opportunities in translation.
SYBA Hindi SEC 2ACO 2: To develop translation skills in Hindi, Marathi and English.अनुवाद व प एवं यवहार मा यम लेखन230962409624096CO 2: To develop translation skills in Hindi, Marathi and English. CO 3 : To introduce students to writing medium, audio-visual media. CO 4: To develop skills of employability among the students.
SYBA Hindi MIL – हंद भाषा f'शfitण23012CO 1: To introduce students scientific study of language. CO 2: To introduce students to the national language and its history. CO 3: To develop fluency and writing skills in Hindi Language.



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	TYBA Hindi G-3 कथेतर वधाएँ गजल वधा और प;rाचार	35093 36093	CO 1: To introduce students to the basics of Memoir and Sketch as a literary form and create their interest in reading Memoir and Sketch. CO 2: To introduce students to the basics of Gajal in literature form and develop their interest in reading Gajal.
	TYBA Hindi S-3 हंद सा ह य का इ तहास	35091	CO 3: To develop written skills of students. To introduce them for News writing and Meeting Agenda and minutes and official letters. CO 1: To introduce students to the History of Hindi Literature. CO 2: To introduce students to the best Hindi
	TYBA Hindi S-4 भाषा व£ान / हंद भाषा और उसका वकास	36091 35092 36092	 CO 3: To develop literary sensibility and sense of cultural diversity in students. CO 1: To introduce students to the Linguistics. CO 2: To introduce students to the scientifically study of Language and its branches. CO 3: To introduce students to Hindi language and its types and its calligraphy



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TYBA SI	EC -2C	CO 1: To introduce students about job
पटकथा ले	लेखन /	CO 2: To develop writing skills in Hindi short
	350	6 film script.
सा ह य अ	और	CO 3 : To introduce students to Cinema. CO 4: To develop their interest in reading
r-फ मांतर	रण 360	06 novels.

Dr. Poonam J. Borse HoD Hindi



Programme Specific Outcomes,

&

Course Outcomes of B.A

Department of History

Academic Year 2021-22



Programme Specific Outcomes: B.A. History

Name of the Department : History						
Program Specific Outcomes						
	At the end of the programme, student will be able to					
1	Acquire of comprehensive knowledge of history from ancient to modern era.					
2	Student will be developed different Research skills about history project writing , research					
2	paper, draw historical maps, charts, diagrams and prepare historical models, tools etc.					
3	Understand and analyze the importance of social, cultural, political and economical context in history.					
	Student will be able to learn the importance of mental, moral, intellectual and social					
4	development of history.					
5	Understand the existing social, political, religious and economic conditions of the people.					
6	Student will gain an understanding of the development of various cultures.					



Course Outcomes: B.A. History (UAHIS)

Class : F.Y.B.A			
Semester-I			
Paper	Course code & course title	At the end of the course, student will be able to	
		CO1: Acquire of comprehensive knowledge about Prehistory and Proto-history.	
	UAHIS 11171 EARLY INDIA: PREHISTORIC TO MAURYAN AGE	CO2: Aware about the Paleolithic and Neolithic settlements in Ancient India.	
FYBA		CO3: Understand and analyze the importance of social, cultural, political and economic context in Ancient history.	
GI		CO4: Learn Ancient Indian maps.	
		CO5: Understand the holistic knowledge about Buddhism and Jainism.	
		CO6: Introduce the major developments in early Indian History.	
		CO2: Aware about the sources of Indian Civilization.	
		CO3: Understand the depth knowledge of prehistory to Civilization.	
		CO4: Learn about Indian heritage.	
		CO5: Increase a sense of awareness towards the nations and its Historic Heritage.	
		CO6: Increase knowledge about Indian culture, Civilization and Heritage.	
		Semester-II	
	UAHIS 11172 EARLY INDIA:MAURYAN AGE TO RASHTRAKUTAS	CO1: Acquire knowledge about central Asian contact and age of Shung- Satvahanas.	
		CO2: Aware about History of early India through historical maps, charts, models, tools etc	
FYBA		CO3: Understand the importance of social, cultural, political and economical	
GI		context about Gupta & Harshawaerdhan Dynasty.	
		CO4: Learn a Brief History of Regional kingdom.	
		CO5: Understand the major developments in early India after the Mauryas.	
		CO6: Introduce the developments in different parts of India through this period.	

Class : S.Y.B.A.			
Semester-III			
Paper	Course code & course title	At the end of the course, student will be able to	
	UAHIS 23174 HISTORY OF THE MARATHA	CO1: Acquire the ability to analyze sources of Maratha history. CO2: Be aware about significant of regional history and political foundation of the region.	
SYBA G 2		CO3: Understand comprehensive knowledge about 17th century Maharashtra and India in context of Maratha history.	
	(1630-1707)	CO4: Learn the skills of leadership and administrative system of the Marathas.	
		CO5: Understand and analyze the sources of Maratha History.	
		CO6: Understand about 17th century of Maratha history.	
		Semester-IV	
		CO1: Acquire knowledge about Maratha policy of expansion and its consequences.	
		CO2: Aware about the role of the Maratha in 18 th century in India.	
SYBA G 2	UAHIS 24174 HISTORY OF THE MARATHA(1707-1818)	CO3: Understand the political, socio- religious and economic development in Marathas in Maratha history.	
		CO4: Learn about knowledge of the administrative skills and profundity of the diplomacy.	
		CO5: Understand changed nature of Maratha Polity during the Peshwa Period.	
		CO6: Aware about Maratha Confederacy and reciprocity.	

Class: 1.Y.B. A Semester-V				
Paper	Course code & course title	At the end of the course, student will be able to		
TYBA G 3	UAHIS 33174 INDIAN NATIONAL MOVEMENT (1885- 1947)	 CO1: Acquire knowledge about development of Modern India. CO2: Aware about Nationalism, Democratic Values and Secularism among the Students. CO 3. Understand various aspects of the Indian Independence Movement and the creation of Modern India. CO 4. Learn highlight the ideas, institutions, forces and movements that contributed to be shaping of India Modernity. CO 5: Understand the existing social, political, religious and economic conditions of the people in modern India. CO 6: Gain an understanding of the development of various cultural movements in Modern India. 		
	Semester-VI			
Paper	Course code & course title	At the end of the course, student will be able to		
TYBA G III	UAHIS 34174 INDIA AFTER INDIPENDANCE (1947- 1997)	CO1: Acquire depth knowledge about the making of Contemporary India and events that panned out in the Post-Independence Era.		
		CO3: Understand and analyze about the ideas, institutions, forces and movements that contributed to the shaping of Indian Modernity.		
		 CO4: Learn post independent history to interpretative and Analytical Way. CO5: Develop an overall understanding of the Contemporary India CO6: Aware about the various aspects of India's domestic and foreign policies That shaped Post-Independence India. CO 6: Overall understanding of archaeology as well as various cultures. 		



Arts, Science & Commerce College, Harsul

Tal. Tryambakeshwar, Dist. - Nashik

Department of Marathi

Course Outcomes F. Y. B. A.

G-1	F.Y.B.A. [11021A] CC-IA (3) lffi31 <u>BI f.!</u> I : cfim	'कथा' या साहित्यप्रकाराचे स्वरूप, घटक आणि प्रकार यां वी म वाड्मयीन अभिरुचीचा विकास होऊन विविध साहित्यप्रव हांत IRtitefinn साहित्य आणि संस्कृती यांचा मेळ घालून जी नमू भाषिक कौशल्य आत्मसात करता येतील
	(BJ-tcfilffi-ilffi3lcfim) 3Tifur MMctil:t, Rich,B	-:Tiffl==;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;

Dr. kiran Pingale

Dr. Motiram Deshmukh



Arts, Science & Commerce College, Harsul

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Department of Marathi

Course Outcomes S. Y. B. A.

Class - S. Y. B. A.			
Semister - IV			
Paper	Course title	Outcome	
G-2	S.Y.B.A. [24023] CC-1D (3) भाषिक कौशल्येविकास ब्र <u>िनिंC'द-1SIcfiR</u> : <u>aRia</u> ¹ Pci (Blffif<.1(14))	ललितगद्य' या साहित्यप्रकाराचे स्वरूप, घटक, वाटचाल >fcfi'' R – साहित्यरंग या अभ्यासपुस्तकातील ललित लेखांचा आकलन व आस्वाद घेतील. अध्यनात 'गुगल फॉर्म' चा वापर करता अध्यनात 'गुगल फॉर्म' चा वापर करता अध्यनात 'यु-ट्यूब' चा वापर करता साहित्यरंग Tf1TR cfci IB '-1' 'of cfl/Rcfi ff1 " अध्यनात 'यु-ट्यूब' चा वापर करता साहित्यरंग TT 3i''-4JBq cfildlci लितिगद्य या साहित्य प्रकारचे <u>3-tlcf>ci-1</u> -	
S-1	S.Y.B.A. [24021] DSE-1B (3) <u>c:PA-11TU3T fllBf4</u> : <u>Rcfscf></u> лद्य, पद्य	Image: state of the state o	

	SVRA	साहित्य आणि समीक्षा यांचा परस्पर संबंधांचा परिचय
S-2	[24022] DSE-2B (3)	साहित्यप्रकारानुसार समीक्षेचे स्वरूप समजून घेता येईल ग्रंथ परिचय, परीक्षण व समीक्षण यातील फरक ओळखता येईल माहित्याच्या ममीक्षेतिषयीची माएन तिकपित होईल
	साहित्य समीक्षा	समाहत्याच्या समाक्षावपयाचा समज विकासत हाइल समीक्षकाने पाळावयाची पथ्ये समजून घेतील
		भाषा, जीवनव्यवहार आणि नवमाध्यमे, समाजमाध्यमांचे संबंध यांचा परिचय होईल.
	S.Y.B.A. [24011] MIL-2 (2) 3IBUT <u>'8J.II::jtJ-II II-Ii'81d</u> I	नवमाध्यमे आणि समाजमाध्यमांसाठी लेखनक्षमता विकसित
(MIL) Modern Indian Languages		- नवमाध्यमे आणि समाजमाध्यमांविषयक साक्षरता निर्माण होईल
	1-1"{@1	नवमाध्यमे आणि cTCR परिणाम याबद्दल चर्चा करता येईल.
		वेबसाईट, ब्लॉग आणि ट्विटर या लेखन क्षमता विकसित होईल
		जाहिरात, मुलाखतलेखन आणि संपादन यासाठी आवश्यक कौशल्ये प्राप्त होतील.
	S.Y.B.A. [24025] SEC-2B (2)	जाहिरात, मुलाखतलेखन आणि <u>1B1a1</u> प्रशिक्षण मिळेल
SEC		जाहिरात. मलाखतलेखन आणि <u>m.J</u> प्रात्यक्षिकासह <u>3941'31.JI'tj) cf>I:tl</u> >fffl .
	<u>39"-11N1d</u> <u>ci@ cbl I</u>	विविध माध्यमांसाठी नोंदलेखन करता येईल
		प्रत्यक्ष अनुभवातून जाहिरात, मुलाखतलखन आणि सपादन क्षेत्राचे ज्ञान मिळेल.

Dr. kiran Pingale

Dr. Motiram Deshmukh



Arts, Science & Commerce College, Harsul

Tal. Tryambakeshwar, Dist. - Nashik

Department of Marathi

Course Outcomes S. Y. B. A.

Class - S. Y. B. A.			
Semister -			
Paper	Course title	Outcome	
G-2	S.Y.B.A. [23023] CC-IC (3) <u><</u> :til. I <u>fltcfiH-</u> 1 आणि आधुनिक मराठी साहित्यप्रकार : कादंबरी (रारंग ढांग)	'कादंबरी' या साहित्यप्रकाराचे स्वरूप, घटक, वाटचाल >Icfin: 3TI<:0@. वाड्मयीन अभिरुचीचा विकास होऊन 'कादंबरी' या Blffi Slcfil(I-i:II o:q1:JI संगणक आणि मोबईलवर युनिकोडमधून मराठी मुद्रण करता कळफलकांच्या प्रकारांचा परिचय हे मराठी टंकलेखन आणि युनिकोडचाcrr:R:c.fi«IT : (गुगल इनपुट, मायक्रोसॉफ्ट इनपुट इ. साधने) (I{II iII (III ctildci!U'til भाषाशैली, "915f, cfld lcf(O) c.ct>i:JI	
S-1	S.Y.B.A. [23021] DSE-1A (3) 1R1"3T fllf%f4 : <u>Slcf>I lcf lcl</u>	 'आत्मचरित्र' या साहित्यप्रकाराच्या प्रेरणा आणि वाटचाल यांची 3TI<:o@ . इतर साहित्यप्रकारांच्या तुलनेत 'आत्मचरित्र' या साहित्यप्रकाराचे वेगळेपण स्पष्ट करता येईल. '3-tlf'i-i:lfe:t' 4T साहित्यप्रकाराचे आकलन, आस्वाद आणि विश्लेषण करता येईल. '3-tlf'i-i:lfe:t' 4T ताध्राद्यात्वाप्त्वात्वात्व आणि विश्लेषण करता येईल. '3-tlf'i-i:lfe:t' 4T ताध्राद्यात्वाप्त्वात्वात्व आणि विश्लेषण करता येईल. '3-tlf'i-i:lfe:t' 4T ताध्राद्यात्वात्वात्वात्व आणि विश्लेषण करता येईल. 	

S-2	S.Y.B.A. [23022] DSE-2A (3) <u>If%f"cl=ql(</u>	साहित्याच्या स्वरूपाचे विश्लेषण करता येईल साहित्याची प्रयोजने स्पष्ट करता येतील साहित्याच्या निर्मितीप्रकियेविषयी चर्चा करता येईल साहित्याच्या भाषा आणि शैली विषयक विचारांचा परिचय होईल साहित्याच्या शब्दार्थांचा <u>cls:fioll19R</u> .वक्रोक्ती, अलंकार, प्रतिमा प्रतिक, प्राक्कथा यांचे विश्लेषण करता येईल.
(MIL) Modern Indian Languages	S.Y.B.A. [23011] MIL-2 (2) IRT3T <u>B:ul9-</u> i <u>cfil I</u>	>f1Rfभाषिक कौशल्यांची क्षमता विकसित होईल SH-IR4I'Ul4id1a संज्ञापनाचे स्वरूप आणि स्पष्ट करता येईल व्यक्तिमत्व विकासातील भाषेचे स्थान स्पष्ट होईल लोकशाहीतील जीवनव्यवहार आणि प्रसारमाध्यमे यांच्यातील mfu- SIBR4I'Ul4iBldl लेखनक्षमता विकसित होईल
SEC	S.Y.B.A. [23025] SEC-2A (2) <u>Slchl Ho<.lcl I(</u> -mfu1- संज्ञापन	Slcfil Hollcl\$Rसंपादन यासाठी आवश्यक कौशल्ये प्राप्त होतील.Slcfil Hollcl\$Rसंपादन यासाठी आवश्यक प्रशिक्षण मिळेल.Slcfil Hollcl\$Rt <-IIBIdI प्रात्यक्षिकासह 39 1"1-iI:JI ctil Iप्रकाशन संस्था, छापखाने, वृत्तपत्र कार्यालये, वितरण संस्था, फ्लेक्स निर्मिती केंद्र, वार्ताहर यांच्या भेटीतून प्रशिक्षण प्राप्त होईल.Slcfil Hollcl\$RSlcfil Hollcl\$RSlcfil Hollcl\$RSlcfil Hollcl\$RSlcfil Hollcl\$Rअणि संपादन क्षेत्राचे ज्ञानमिळेल.


Arts, Science & Commerce College, Harsul

Tal. Tryambakeshwar, Dist. - Nashik

Department of Marathi

Course Outcomes S. Y. B. A.

Class - S. Y. B. A.			
Semister -			
Paper	Course title	Outcome	
G-2	S.Y.B.A. [23023] CC-IC (3) <u><</u> :til. I <u>fltcfiH-</u> 1 आणि आधुनिक मराठी साहित्यप्रकार : कादंबरी (रारंग ढांग)	'कादंबरी' या साहित्यप्रकाराचे स्वरूप, घटक, वाटचाल >Icfin: 3TI<:0@. वाड्मयीन अभिरुचीचा विकास होऊन 'कादंबरी' या Blffi Slcfil(I-i:!! <u>0:q1:J</u> ! संगणक आणि मोबईलवर युनिकोडमधून मराठी मुद्रण करता कळफलकांच्या प्रकारांचा परिचय हे मराठी टंकलेखन आणि युनिकोडचाcrr:R:c.fi«IT : (गुगल इनपुट, मायक्रोसॉफ्ट इनपुट इ. साधने) (I{II ill <it ctildci!u'til<="" td=""> पाषाशैली, "915f, cfld lcf(Ol c.ct>i:J</it>	
S-1	S.Y.B.A. [23021] DSE-1A (3) 1R1''3T fllf%f4 : <u>Slcf>I lcf lcl</u>	•आत्मचरित्र' या साहित्यप्रकाराच्या प्रेरणा आणि वाटचाल यांची 3TI<:o@. इतर साहित्यप्रकारांच्या तुलनेत 'आत्मचरित्र' या साहित्यप्रकाराचे वेगळेपण स्पष्ट करता येईल. <u>'3-tlf'i-i:lfe:t' 4T साहित्यप्रकाराचे आकलन, आस्वाद आणि</u> विश्ठेषण करता येईल. <u>'3-tlf'i-i:lfe:t' 4T ताधारस्य मापल</u> ाच्या <u>जीवनमल्यांचे</u> 3Tiiur <u>41Rta i:c</u>) <u>c11fcp ;qcf</u> i m <u>cf>UM</u>	

S-2	S.Y.B.A. [23022] DSE-2A (3) <u>If%f"cl=ql(</u>	साहित्याच्या स्वरूपाचे विश्लेषण करता येईल साहित्याची प्रयोजने स्पष्ट करता येतील साहित्याच्या निर्मितीप्रकियेविषयी चर्चा करता येईल साहित्याच्या भाषा आणि शैली विषयक विचारांचा परिचय होईल साहित्याच्या शब्दार्थांचा <u>cls:fioll19R</u> .वक्रोक्ती, अलंकार, प्रतिमा प्रतिक, प्राक्कथा यांचे विश्लेषण करता येईल.
(MIL) Modern Indian Languages	S.Y.B.A. [23011] MIL-2 (2) IRT3T <u>B:ul9-</u> i <u>cfil I</u>	>f1Rfभाषिक कौशल्यांची क्षमता विकसित होईल SH-IR4I'Ul4id1a संज्ञापनाचे स्वरूप आणि स्पष्ट करता येईल व्यक्तिमत्व विकासातील भाषेचे स्थान स्पष्ट होईल लोकशाहीतील जीवनव्यवहार आणि प्रसारमाध्यमे यांच्यातील mfu- SIBR4I'Ul4iBldl लेखनक्षमता विकसित होईल
SEC	S.Y.B.A. [23025] SEC-2A (2) <u>Slchl Ho<.lcl I(</u> -mfu1- संज्ञापन	Slcfil Hollcl\$Rसंपादन यासाठी आवश्यक कौशल्ये प्राप्त होतील.Slcfil Hollcl\$Rसंपादन यासाठी आवश्यक प्रशिक्षण मिळेल.Slcfil Hollcl\$Rt <-IIBIdI प्रात्यक्षिकासह 39 1"1-iI:JI ctil I प्रकाशन संस्था, छापखाने, वृत्तपत्र कार्यालये, वितरण संस्था, फ्लेक्स निर्मिती केंद्र, वार्ताहर यांच्या भेटीतून प्रशिक्षण प्राप्त होईल.Slcfil Hollcl\$RيSlcfil Hollcl\$Rबतर्गहर यांच्या भेटीतून प्रशिक्षण प्राप्त होईल.Slcfil Hollcl\$Rआणि संपादन क्षेत्राचे ज्ञानमिळेल.



Arts, Science & Commerce College, Harsul

Tal. Tryambakeshwar, Dist. - Nashik

Department of Marathi

Course Outcomes T. Y. B. A.

Class - T. Y. B. A.				
Semister - VI				
Paper	Course title	Outcome		
		रूप कवितेचे या कविता संग्रहाचे आकलन करू शकतील		
		कविता या वाङ्मयप्रकाराची माहिती सागू शकतील.		
	T.Y.B.A.	कविता या वाड्मय प्रकारचे आकलन आस्वाद करू शकतील		
	[34023] CC-IF (3)	राज्य घटनेतील भाषाविषयक तरतुदी, मराठी राजभाषा अधिनियम		
G-3	<u>cfil 1 fct<:f>IB</u>	<u>L-J{1Jlfctt5t4</u> ffl <u>cfi{OJJ.:::qJ WB4i14</u> ——		
	" <u>Blffif4Slcfil{</u> : cfifc@r			
		कवितेचे स्वरूप, वाटचाल, प्रेरणा आणि वैशिष्ट्ये समजू शकतील.		
		अभ्यासक्रमासाठी असलेल्या निवडक कवितांचे रसग्रहण, विश्लेषण		
		करता यइल.		
	T.Y.B.A.	मध्ययुगीन पद्य : पडिती व शाहिरी काव्य विशेषाचा परिचय हडिल		
	[34021] DSE-ID	मध्ययुगीन गद्य : बघर वाड्मय या साहित्यप्रकारांचे स्वरूप आणि विशेषांचा परिचय दोर्टल		
	(3+1)			
S-3	मध्ययुगीन मराठी	सत तुकाराम व सत रामदास याच्या पद्य वाड्मयाच आकलन आस्वाद करू शकतील		
	वाड्मयाचा स्थूल	रामचंद्रपंत अमात्य यांच्या आज्ञापत्राविषयी माहिती ^{m1T} I<::iiffici.		
	<u>@\$1 -</u> - O	पंदिती काल्याचे स्वरूप वाटचाल पेगणा आणि वैशिषये मणज		
	1 \9	1<:fid1ci.		
	1			

		T.Y.B.A. [34022] DSE-2D	रुपिमविचार ही संकल्पना व रुपिमांचे प्रकार त्यांना विशद करता वाक्यविचार ही संकल्पना व वाक्याचे घटक विशद करता येईल
	S-4	(3)+1) वर्णनात्मक भाषाविज्ञान भाग २	अर्थ म्हणजे काय याविषयी माहिती सांगू शकतील. अर्थाच्या विविध संकल्पनाची भाषावैज्ञानिक अंगाने परिचय होईल अर्थ ही संकल्पना व अर्थाचे प्रकार त्यांना विशद करता येईल.
-			कार्यक्रम संयोजनातील भाषिक कौशल्ये आत्मसात करू शकतील.
	SEC	T.Y.B.A. [3011] SEC-2C (2) <u><:fil4@nJ.i</u> 1-= <u>'8 1-:iHlctlc</u> i ebl. L.cg. r-	विविध कार्यक्रमांचे भाषिक कौशल्ये समजून घेऊ शकतील. ,,,,-=rr cr-T ,,+ri',
		<u></u>	31NIm कार्यक्रम संयोजनातील कौशल्ये संपादन करू शकतील.

Dr. kiran Pingale

Dr. Motiram Deshmukh



Arts, Science and Commerce College, Harsul

Tal.- Trimbakeshwar Dist. Nashik

DEPARTMENT OF POLITICAL SCIENCE

Academic Year 2021-22

B. A. Political Science

PROGRAM OUTCOMES

- 1. To understand the basic theoretical aspects in humanities and social sciences.
- 2. Read and Express various viewpoints with clarity.
- 3. Imbibe critical thinking skills.
- 4. Identify the problems and attempt to come up with possible solutions.
- 5. Objectively Analyze information and develop the skill of reasoning.
- 6. Generate Research Aptitude.
- 7. Work in collaboration for a common goal.
- 8. Evaluate information logically.
- 9. Reflect up on various view point to enrich their understanding.
- 10. Complete various activities independently.
- 11. Handle digital resources effectively.
- 12. Develop social-cultural and national integrity.
- 13. Learn to respect all and move towards the universal religions of humanity.
- 14. Develop leadership skills.

PROGRAM SPECIFIC OUTCOMES

- 1. Students will have comprehensive knowledge in the discipline of Political Science.
- Understand the prevailing political doctrines and ideologies proposed by foreign political thinkers
- 3. Familiarize with the active role of political system in democracy.
- 4. Describe the role and function of Indian Constitution for an Indian citizen.
- 5. Relate the role of public administration in modern state.

The revised syllabus 2019 Choice Based Credit System (CBCS) to be implemented from 2019-2020 After successful Completion of B. A. Political Science Students will be able to achieve following knowledge.

Sr. No.	Class	Subject Title	Course Outcome
1	FYBA	Semester I	CO1. Student understands the philosophy of Indian
	G-1	Introduction to Indian	Constitution.
		Constitution	CO2 . Student knows the Fundamental Rights, Fundamental
		Code : 11161A	Duties and Directive Principles of State Policy.
			CO3. Student understands the Salient Features of Indian
			Federalism, Centre –State Relations, Issues of Conflict
			(Water and Border Issues)
			CO4. Student understands the Constitutional Provisions,
			Major Constitutional Amendments (42, 44 & 86) and the
			Basic Structure of the Indian Constitution
2	FYBA	Semester II	CO1. Student understands the Union Legislature –
	G-1	Introduction to Indian	Structure, Powers and Role and the State Legislature –
		Constitution	Structure, Powers and Role
		Code : 11162 B	CO2 . Student knows the Executive system of the Centre
			Government and State Governments
			CO3. Student understands the judiciary system in India
			CO4. Student knows the Election Commission:
			Composition, Functions and Role, Chief Election
			Commissioner and Electoral reforms in India
3	SYBA	Semester III	CO1. Student understands various types of political
	G-2	An Introduction to	ideologies.
		Political Ideologies	CO2 . Student understands impacts of political ideologies
			on politics.
		Code : 23164	CO3. Student understands basic ideas behind important
			political ideologies.
			CO4. Student knows impact of political ideologies on public
			policies.
			COS. Student acquaints with the legacy of all the major
1	CVDA	Somester IV/	CO1 Student acquaints with the concent of Marviem it's
4	SIDA	Semester IV	history Marvian state and New Marvism
	G-2	An introduction to Relitical Idealogies	CO2 Student acquaints with Phyle-Ambedkarism equality
		rollitical lucologies	cast & religion and democracy
		Code : 2/16/	CO3 Student acquaints with Gandhism and it's aspects like
		COUE . 24104	Truth and Non-Violence, theory of gram swarai and
			satvagraha
			CO4 . Student acquaints with feminism, it's meaning and
			nature, liberal feminism.
5	SYBA	Semester III	CO1. Student acquaints with the major traditions of
5	S-1	Western Political	thought that have shaped political discourse in different
	3 * 1	Thought	part of the world.
			CO2 . Student understands the great diversity of social
		Code : 23161	contexts and philosophical visions.
			CO3. Student understands the history of political thought
			as a series of critical, interconnected and open-ended
			conversations about the ends and means of the good life.

6	ςγβα	Somostor IV	CO1 . Student acquaints with Bousseau and his concept of
Ū	C 1	Western Political	State of Nature General Will and Theory of Social Contract
	3-1	Thought	CO2 Student acquaint with Hegel's Idealism and Views on
		mought	Freedom
		Code : 2/161	CO3 . Student understands L.S. Mill's views on liberty
		COUE . 24101	representative government and utilitarianism
			CO4 Student understands Historical Materialism Class
			Struggle and Theory of State and Revolution of Karl Mary
7	CVB A	Somostor III	CO1 Student acquaints with the complex relationship
/	SIDA	Bolitical Journalism	between the communication, media and nower politics
	3-2	r olitical journalishi	CO2 Student understands the critical appraisal of practices
		Cada : 22162	of political image management campaigns, propaganda
		COUE . 25102	and censorshin
			CO3 Student acquaints with the Indian context of political
Q		Somostor IV	CO1 Student acquaints with the role of social media in
0	SIDA	Bolitical Journalism	Political Process
	5-2	Political journalism	CO2 Student understands the concent of mediatisation of
		Codo + 24162	politics' its practices and modiums
		Code : 24162	CO2 Student acquaints with the shallonges before political
			iournalism
0		6	CO1 Student understande the historical background of
9	SYBA	Semester III	COL. Student understands the historical background of
		Basics of Indian	Indian Constitution.
		Constitution	CO2. Student understands about the Constitution
		Code : 23165	Assembly.
			CO3. Student understands the philosophy benind the
10		Compation IV/	Preamble of the Indian Constitution.
10	SYBA	Semester IV	CO1. Student understands the Right to Equality.
		Basics of Indian	CO2 . Student understands the Right to Erondom of Boligion
			COS . Student understands the Right to Freedom of Religion.
11	TVDA	Coue . 25105	CO1 Student conversions with the Ovining meaning
11	IYBA	Semester V	definition nature and scene of Idealogy
	G-3	Political Ideologies	CO2 Student understande the concent of Nationalism it's
		Code : 3167	CO2 . Student understands the concept of Nationalism, it's
		(2012 Dattaux)	inearing, elements and types and also understands the
		(2013 Pattern)	CO2 Student acquaints with the concent of democratic
			cosiciliem it's achievements limitations and types
			COA Student acquaints with the concent of Eacrism and
			factors responsible for it's rise, it's principles and corporate
			state
12	τνρλ	Somostor VI	CO1 Student acquaints with the concent of Marvism and
12			theory of surplus value
	G-3	Political Ideologies	CO2 Student understands the concent of Phyle-
		Code : 3167	Ambedkarism
			CO3 Student acquaints with the concept of Candhism
		(2012 Dattarn)	Truth and Non-Violence. Theory of Satyagraha and Gram
		(2015 Pattern)	Swarai
			COA Student acquaints with the concent Feminism it's
			meaning and nature Liberal Feminism and Feminism in
			India

13	TYBA	Semester V	CO1. Student acquaints with the meaning and nature of
	S-3	Public Administration	public administration.
		Code : 3168	CO2 . Student understands the essence of public
			administration lies in its effectiveness in translating the
			governing philosophy into programmes, policies and
		(2013 Pattern)	activities and making it a part of community living.
		, , , , , , , , , , , , , , , , , , ,	CO3. Student acquaints with the personnel public
			administration in its historical context and the
			development o administrative salience and capabilities otr
			deal with the process of change
			CO4 . Student acquaints with the importance of legislative
			and judicial control over administration.
14	τνβα	Semester VI	CO1 . Student acquaints with the meaning and nature of
	62	Public Administration	Bureaucracy
	3-3	Code · 3168	CO2 Student understands the personnel administration
		couc . 5100	and it's aspects like recruitment, training and promotion.
			CO3. Student acquaints with the budgeting, it's meaning.
		(2013 Pattern)	types and principles and it's process in India.
		()	CO4 . Student acquaints with the importance of
			accountability and control in public administration.
15	ΤΥΒΔ	Semester V	CO1 . Student acquaints with the concepts and dimensions
	S_4	International Politics	of International Relations.
	3-4	Code · 3169	CO2 . Student understands the different theories
		0000.0100	highlighting the major debates and differences within the
		(2013 Pattern)	different theoretical paradigms.
		. ,	CO3. Student acquaints with the dominant theories of
			power and the questions of equality and justice, the
			different aspects of balance of power leading to the
			present situation of a unipolar world.
			CO4. Student acquaints with various aspects of conflict and
			conflicts resolution, collective security and in the specificity
			of the long period of the post second world war phase of
			the cold war.
16	ТҮВА	Semester VI	CO1. Student acquaints with the meaning and basic
	S-4	International Politics	principles of Non-Alignment and emergence and as a
		Code : 3169	movement.
			CO2 . Student understands the meaning of globalization, it's
		(2013 Pattern)	evolution, impacts and limits.
		-	CO3. Student acquaints with the New-Colonialism, new
			international economic order.
			CO4. Student acquaints with the contemporary global
			issues like terrorism, environmental issues, poverty and
			human rights.

Head

Department of Political Science



MAHATMA GANDHI VIDYAMANDIR'S ARTS, SCIENCE AND COMMERCE COLLEGE, HARSUL TAL- TRYAMBAKESHWAR, DIST- NASHIK [Affiliated to Savitribai Phule Pune University of Pune]



DEPARTMENT OF PSYCHOLOGY

Programme Outcomes, Programme Specific Outcomes & Course Outcomes of B.A.

Department of Psychology

Academic Year 2021-22

Programme Outcomes and Programme Specific Outcomes:

B.A. Psychology				
Programme Outcomes (POs)				
Students will learn scientific methods, basic psychological processes and various				
perspectives in Psychology.				
Students will develop skills to live in the social world by understanding				
psychological aspects of various social phenomena, errors in interaction and				
theoretical approaches of social behaviour.				
Students will be equipped with skills to identify and diagnose mental disorders causal				
pattern and appropriate treatment of different disorders.				
Skillful to identify strategies to Manage organizations more effectively and will be				
expert in topics like Leadership, Motivation, Power, Conflict, Negotiation, etc.				
Gain familiarity with skills of observation and scientific reporting in psychology;				
trained in planning and conducting a psychological experiment.				
Equipped with theoretical knowledge, approaches and issues of counseling				
Acquaint with different mental health problems of children and elderly through doing				
Internship.				
Familiar with psychological instruments and tools and developed the ability to				
understand self and others.				
Familiar with biological basis of behaviour and basic statistical methods used in				
Psychological research.				
Students will have theoretical knowledge on the process and nature of child				
development.				
Develop basic skills in conducting a scientific research				
Programme Specific Outcomes				
Knowledge of basic concepts of Psychology: To impart knowledge and				
understanding of the basic concepts, systems, theories of psychology and				
psychopathology.				
Practical application Skills: An ability to apply the theoretical principles of				
Psychology demonstrating an understanding of behavior, thoughts, and feelings of				
the individual and the individual in group settings.				

3	Assessment skills: Basic professional skills pertaining to psychological testing,
	assessment and counseling.
4	Multicultural competence: To recognize, understand, and respect the complexity of
	multiculturalism in the practice and application of counseling and psychotherapy.

	Class: F.Y.B.A.		
	Semester I		
Paper	Course Code and	Course Outcomes	
	Course Title		
Ι	FOUNDATIONS	Develop a working knowledge of Psychological contents, areas	
	OF	and applications of psychology.	
	PSYCHOLOGY	Develop a base in cognitive psychology with the help of	
	UAPSY-11221	relevant examples of everyday life.	
		Comprehend and analyze situations in real life appropriately	
		and enable others to exercise in the same way.	
		Appreciate and apply various theories of learning in the	
		practical world.	
		Identify the importance of experiments in the field of memory	
		and other cognitive aspects and analyze the way it shaped	
		cognitive psychology.	
		SEMESTER II	
Π	INTRODUCTION	Develop the basic concepts of Psychology related with society.	
	TO SOCIAL	To understand the concepts like interpersonal relations,	
	PSYCHOLOGY	Emotional Intelligence in Social world.	
	UAPSY-11222	Appreciate and apply various theories of learning in the work	
		culture and social world.	
		Develop working knowledge in the work culture, Society at	
		large.	
		Identify the importance of experiments in the field of social	
		psychology to understand the key concepts such as social	
		dissonance, social conformity etc.	

Course Outcomes: B.A. Psychology

		Class: S.Y.B.A.	
	Semester I		
Paper	Course Code and	Course Outcomes	
	Course Title		
Ι	DSE-2A	This course will impart in students an appreciation of the	
	DEVELOPMENTAL	complex issues surrounding abnormal behaviour both as	
	PSYCHOLOGY	experts and novices think about it.	
	23221	Students would be able to diagnose a disorder, prescribe a	
		treatment, and make a prognosis. They would also get an	
		insight into the skills which are required by a psychologist.	
		The type of knowledge this course imparts is precisely the	
		type used by professional practitioners.	
		Students can review current research findings and trends	
		relative to the development and description of maladaptive	
		behaviour, as well as gender and demographic influences	
		on the prevalence of psychological illness.	
		Students also learn to describe the diagnostic criteria,	
		symptoms, course, incidence, prevalence, etiology,	
		prognosis and correlates of major mental disorders and	
		learn the psychological, biological, and sociocultural	
		theoretical perspectives of abnormal behaviour.	
II	DSE-2A	Appraise the students to the shades of development as a	
	DEVELOPMENTAL	process.	
	PSYCHOLOGY	Explain and analyze the theoretical viewpoints in relation	
	23222	to Developmental Psychology	
		Develop the skills to analyze etiology, symptoms and	
		prognosis of developmental disorders	
		Developing knowledge and skills in different aspects of	
		Learning and Motivation as implied in Educational	
		Settings.	
Ш	CC/SEC- 1A	Analyzing Historical perspective on Health & Illness	
	HEALTH	Introduction on how theoretical and empirical findings are	
	PSYCHOLOGY	applied to improve the lives and development of	
	23223	individuals and groups with the help of health psychology.	
		Analyze and critically evaluating fundamental issues, with	
		a particular focus on how to promote health across a range	
		of settings this course will be relevant for students who	
		want to work in health settings.	

		The course will provide an insight into how psychology
		The course will provide an insight into how psychology can be used to understand important health issues for example – patient adjustment to chronic illness, how to motivate patients to change their health-related behaviour or how lifespan influences shape our health beliefs and behaviors, arguments, and points of view in health psychology.
137		Apply and devialor concentral difference between
1 V	SEC-2A REALIR	Appry and develop conceptual difference between
	PROMOTION LIFE	guidance counseing & psychotherapy.
	SKILLS	Develop technique and implication of applied counseling
	23224	skills in areas of practice.
		Evaluate counseling theories & their application to the outside world.
		Classify the role and responsibilities of a professional
		counselor.
		Identify the techniques to practice in the therapy encounter
		and how those techniques should be implemented with a
		variety of disorders and psychosocial issues.
Semeste	er II	
V	DSE-2B THEORIES	This course will impart in students an appreciation of the
	OF PERSONALITY	complex issues surrounding abnormal behaviour both as
	Revised Syllabus	experts and novices think about it.
	2020-21	Students would be able to diagnose a disorder, prescribe a
	24221	treatment, and make a prognosis. They would also get an
		insight into the skills which are required by a psychologist.
		The type of knowledge this course imparts is precisely the
		type used by professional practitioners.
		Students can review current research findings and trends
		relative to the development and description of maladaptive
		behaviour, as well as gender and demographic influences
		on the prevalence of psychological illness.
		Students also learn to describe the diagnostic criteria,
		symptoms, course, incidence, prevalence, etiology,
		prognosis and correlates of major mental disorders and
		learn the psychological, biological, and sociocultural
		theoretical perspectives of abnormal behaviour.
VI	DSE-2B THEORIES	Illustrate various theories of personality.
	OF PERSONALITY	Develop capability to apply knowledge of personality
	Revised Syllabus	theories for self and societal growth
	24222	It enables students to become familiar with the major
		theories and traditions related to the study of personality
1	1	

		It further enables the student to articulate the underlined		
		themes methodology and assumption of each theory to		
		enhance understanding of personality and behaviour		
VII	CC/SFC- 1B	Analyzing Historical perspective on Health & Illness		
V II	DOSITIVE	Introduction on how theoretical and empirical findings are		
	PUSITIVE	introduction on now theoretical and empirical findings are		
	PSYCHOLOGY	applied to improve the lives and development of		
	24223	individuals and groups with the help of health psychology.		
		Analyze and critically evaluating fundamental issues, with		
		a particular focus on how to promote health across a range		
		of settings this course will be relevant for students who		
		want to work in health settings.		
		The course will provide an insight into how psychology		
		can be used to understand important health issues for		
		example - patient adjustment to chronic illness, how to		
		motivate patients to change their health-related behaviour		
		or how lifespan influences shape our health beliefs and		
		behaviors, arguments, and points of view in health		
		psychology.		
VIII	SEC-2B BASIC	Apply and develop conceptual difference between		
	COUNSELING	guidance counseling & psychotherapy.		
	SKILLS	Develop technique and implication of applied counseling		
	24224	skills in areas of practice.		
		Evaluate counseling theories & their application to the		
		outside world.		
		Classify the role and responsibilities of a professional		
		counselor.		
		Identify the techniques to practice in the therapy encounter		
		and how those techniques should be implemented with a		
		variety of disorders and psychosocial issues.		

Class: T.Y.B.A.				
	Semester I			
Paper	Course Code and	Course Outcomes		
	Course Title			
Ι	SEC 1 C (3)	Students will be able to describe concepts of psychology		
	(INDUSTRIAL AND	in the process of manpower training.		
	ORGANIZATIONAL	Design training & development process of an		
	PSYCHOLOGY)	organization; apply various methods in organizational		
	35223	setting.		
		The goal of this course is to understand how		
		psychological principal improve efficiency and quality of employee lifeStudents gain knowledge about the history of I/O		
		psychology, job analysis, motivation, leadership, job		
		satisfaction, work stress and health.		
Π	S-3 DSE 1 C (3)+(1)	Review the concepts of psychology through the mediums		
	TESTING PROJECT	of the experiments.		
	PSYCHOLOGICAL	Understand the rationale, strengths and limitations of the		
	TESTING	experimental method of gaining knowledge about mental		
	(THEORY)	and behavioral processes.		
	35221	Develop skills of conducting and documenting		
		experiments in the field of psychology.		
		Learn how to design experimental and non-experimental		
		studies.		
		To enhance the scientific temper of the students by		
		providing them with the experimental knowledge of		
		psychology.		
III	DSE 1 D (3)+(1)	Understand the basic concept of statistics in psychology.		
	RESEARCH			
	PROJECT	Explore and get introduced to the various statistical tools		
	EXPERIMENTAL	(parametric and non-parametric) used for analysis		
	PSYCHOLOGY	Learn categorization and presentation of data: graphical		
	(THEORY) 25222	representation used to communicate data		
	33222	Knowledge about hypothesis testing, execute qualitative		
		and quantitative data analysis		
IV	SEC 2 C (2)	Understanding the importance of effective Personality		
1 4	(VALUE/SKILL	Illustrate various types of personality		
	(VILLOL/SIXLL BASED COURSE)	Develop capability to apply knowledge of personality		
	(PERSONALITY	theories for self and societal growth		
	DEVELOPMENT-1)	It enables students to become familiar with the major		
	35224	theories and traditions related to the study of personality		
		and personal growth		
		ana personai ziowan.		

		It further enables the student to articulate the underlined			
		themes, methodology and assumption of each theory to			
		enhance understanding of personality and behaviour.			
	Semester II				
V	SEC 1 D (3)	Understand how psychological theories and principles			
v	(APPLIED	relate to everyday life and applied Knowledge of			
	PSYCHOLOGY)	Behaviour modification and life skill training			
	36223	Students are exposed to basic scientific research methods			
	50225	techniques, counceling skills, ethics and evaluate skills of			
		Psychology			
		Apply psychological principles to personal and social			
		issues and problems.			
N/T	DEE 2 D $(2) + (1)$	Paviaw the concepts of psychology through the mediums			
V I	$DSE \ 2 \ D \ (S) + (1)$	of the experiments			
		of the experiments.			
	(PSICHOLOGICAL EVDEDIMENTS)	Understand the rationale, strengths and limitations of the			
	EAFENIIVIEN 15)	experimental method of gaining knowledge about mental			
		and behavioral processes.			
		Develop skills of conducting and documenting experiments in the field of psychology			
		experiments in the field of psychology.			
		Learn how to design experimental and non-experimental			
		To enhance the scientific temper of the students by			
		providing them with the experimental knowledge of			
		providing them with the experimental knowledge of			
* 7**		Understand the basic concept of statistics in psychology			
VII	S-4 DSE 2 C $(3)+(1)$	Understand the basic concept of statistics in psychology.			
	STATISTICS	Explore and get introduced to the various statistical tools			
	(PSYCHOLOGICAL	(parametric and non-parametric) used for analysis.			
	TESTS)	Learn categorization and presentation of data; graphical			
	36222	representation used to communicate data			
		Knowledge about hypothesis testing, execute qualitative			
		and quantitative data analysis.			
VIII	SEC 2 D (2)	Understanding the importance of effective Personality			
	(VALUE/SKILL	Illustrate various types of personality.			
	BASED COURSE)	Develop capability to apply knowledge of personality			
	(PERSONALITY	theories for self and societal growth			
	DEVELOPMENT-2)	It enables students to become familiar with the major			
	36224	theories and traditions related to the study of personality			
		and personal growth.			
		It further enables the student to articulate the underlined			
		themes, methodology and assumption of each theory to			
		enhance understanding of personality and behaviour.			

Mahatma Gandhi Vidyamandir's Arts ,Science and Commerce College Harsul Tal. Trambkeshwar Dist Nashik 422204

Programme Specific Outcomes, & Course Outcomes of B.Sc.

Department of Zoology

Academic Year 2021-22

Programme Specific Outcomes: B.Sc. Zoology(USZ)

	Name of the Department: Subject
	Program Specific Outcomes
	At the end of the programme, student will be able to
1	Understand the key concepts of Zoology at biochemical, molecular, cellular, physiological, histological and systematic level.
2	Understand recent trends in zoological sciences and their applications in various fields like agriculture, apiculture, fisheries, poultry, sericulture, bioinformatics etc.
3	Collect, analyse and explore biological data by statistical and biological techniques, write reports, review articles related to zoology
4	Enhancing their self-sustainability capabilities through understanding of skill-based information and techniques, culturing techniques of economically important animals in applied and classical zoology.
5	Assess environmental impact on all life forms, particularly on applied disciplines related to public health.
6	Understand and develop social competence including observational, listening, effective interactive skills and presenting skills to meet global competencies

Course Outcomes: B.Sc. Zoology (PSZ)

Class : F.Y.B.Sc			
Semester-I			
Paper	Course code & course title	At the end of the course, student will be able to	
		Understand the terms related to animal diversity, classify and identify the diversity of animals.	
	USZ (ZT-111)	Demonstrate the structure and functions of spicules of sponges and classify the sponges on the basis of their skeleton.	
I	Animal Diversity I	Define the systematic position and habitat of earthworms. Describe the body wall and coelom of earthworm and explain the structure and functions of their organ system.	
		Recall the names of protozoan and helminths parasites of animals and illustrate their life cycles and pathogenicity	
		Analyse invertebrates on the basis of their morphology and anatomy in respective systematic position.	
		Carry out the field survey and write the field report on the basis of comparative morphology of animals.	
		Understand terms related to animal ecology and distribution of animals in different realms interaction	
II	USZ (ZT-112) Animal Ecology	Knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life, wild life conservation and management	
		Analyse the population & community ecology applicable to life sciences	
		Describe the history, introduction and nature of ecosystem	
		Explain the bio-geocycles and laws, understand environmental impact on it	
		Develop understanding of aquatic ecology, wild life conservation and management	
		Gain knowledge to identify and classify various animals based on morphological features	

III	USZ (ZT-113) Zoology Practical Paper	Prepare the culture of Paramecium, for live observations of organelles, nutrition, locomotion, excretion, reproduction, fission etc	
		Understand the principle, applications and use of microscopes and micrometry.	
		Analyse invertebrate animals according to their class by morphology and anatomy	
		Performed laboratory experiments blood cells as differential and total count with normal range	
		Identify various larval stages and development in invertebrate groups.	
		Semester-II	
) USZ (ZT-121) Animal Diversity II	Understand classify and identify the diversity of arthropod, Mollusca, Echinodermata by morphology and anatomy	
т		Identify various larval stages and development in insects, and echinoderms	
1		Understand various modifications in animal groups and the need of the modification for survival	
		Know the differences and similarities in the various aspects of classification.	
		Apply the underlying principles of classification of animals	

		Analyse and explore animal diversity surround us by statistical and biological techniques, write reports	
		Understand the importance of cell as a structural and functional unit of life.	
	USZ (ZT-122) Cell Biology	Compare between the prokaryotic and eukaryotic system and extrapolates the life to the aspect of development.	
		Able to describe cell organelle structure and functions with inter relationship	
П		Apply their knowledge of cell biology to selected examples of changes or losses in cell function.	
		Understand how these cellular components are used to generate and utilize energy in cells	
		The fundamental of cell cycle and Apoptosis, difference between Somatic cell division and Gametic cell division	
		Gain knowledge to identify and classify various arthropods, molluscs and echinoderms based on morphological features	
		Understand the knowledge of mouth parts of insects, shell in molluscs	
ш		Prepare vermicomposting bin preparation and maintenance	
	USZ (21-123) Zoology Practical Paper	Insect pest collection and its identification, preservation of it	
		Write report of visit to a vermicomposting unit	
		understand economic importance of honey bees, Lac insects silk worms, red cotton bug, Anopheles mosquito	

	Class : S.Y.B.Sc.			
	Semester-III			
Paper	Course code & course title	At the end of the course, student will be able to		
		Understand the terms related to Animal diversity, classify and identify the diversity of higher vertebrates.		

USZ (ZT-231) I Animal Diversity III		Aware regarding his role and responsibility towards nature as a protector, to understand his role as a trustee and conservator of life which he has achieved by learning, observing and understanding life.	
		Understand the linkage among different groups of higher vertebrates	
		Analyse and explore animal diversity surround us by statistical and biological techniques, write reports	
		Identify reptiles, Pisces, amphibians by external morphology and anatomy	
		Understand animal type study of fish with all systems, reproduction and life cycle	
		Learn for controlling agricultural pests as need for more crop yield	
П	USZ (ZT-232) Applied Zoology I	Understand the basic information about silk, silkworm rearing management	
		Learn about rearing and life cycle of Mulberry, Tassar, Eri and Muga silk moths	
		Identify and treat important diseases and pests of silkworm and use of Shoulder type Rotary duster, Knapsack sprayer for agricultural pests, Cynogas Pump.	
		Know about preparation of cocoons for marketing and understand post harvesting methods	

		Gain knowledge of biotechnological and biomedical applications of silk	
	USZ (ZT-233) Zoology Practical Paper	Prepare map showing distribution of silk moth and sericulture practices in India	
		Gain knowledge of equipment's in Sericulture and methods of their use	
ш		Explain the tools and techniques used in agricultural pest control including Rotary duster, Knapsack sprayer for agricultural pests, Cynogas Pump	
		Illustrate management of the agricultural pests and sericulture units	
		Gain knowledge to define the concepts of the applied subjects like Apiculture and Sericulture	
		Select economically important species of Silk moth for sericulture unit	
	S	Semester-IV	
		Understand the terms related to Animal diversity, classify and identify the diversity of higher vertebrates.	
Ι	USZ (ZT-241) Animal Diversity IV	classify vertebrates and to become able to understand the possible group of vertebrates observed in nature.	
		Become aware regarding his role and responsibility towards nature as a protector, to understand his role as a trustee and conservator of life	
		Understand Origin & Ancestry of Chordates	
		Understand the linkage among different groups of higher vertebrates.	
		Gain knowledge of Reptiles, Mammals and Pisces with animal type study of fish	
	USZ (ZT-242) Applied Zoology II	Learn for managing beehives for honey production and pollination as need for more crop yield	
Π		Differentiate between different life stages of honey bee and explain their life cycle. Discuss control and prevention of pests and diseases.	
		Outline the important tools and equipment's used in apiculture and fisheries.	
		Understand knowledge of fish preservation technique, fish by-products	
		Aware of principle and use of Crafts and Gears in Indian Fishery	
		Understand Bee diseases, Bee pests and Bee predators, bee pollination	

ш	USZ (ZT-243) Zoology Practical Paper	Gain knowledge of equipment's in beekeeping, fisheries and methods of their use
		Learn about rearing and life cycle of honeybee
		Understand Freshwater fisheries, Marine fisheries, Brackish water fisheries.
Aware of various harvesting methods of marine		Aware of various harvesting methods of marine forms fisheries
Understand knowledge of fish preservation technic		Understand knowledge of fish preservation technique, fish by-products
		Identify Bee diseases, Bee pests and Bee predators

Head, Department of Zoology



Mahatma Gandhi Vidyamandir's Arts, Science And Commerce College

Harsul, Tal-Trimbakeshwar, Dist : Nashik

Criteria II (2.6.1): Program Outcomes (2021-2022)

Name: of Programme : Bachelor of Science (B. Sc.)				
PO. No.	Program Outcomes After successful completion of this program, a student will be able to	Graduate Attributes		
PO1	Express thoughts and ideas effectively in writing and orally.	Communication Skills		
PO2	Evaluate practices, policies and theories by following scientific approach to knowledge development.	Critical thinking		
PO3	Apply one's learning to real life situations.	Problem solving		
PO4	Draw valid conclusions and support them with evidence and examples.	Analytical reasoning		
PO5	Plan, execute and report the results of an experiment or investigation.	Research-related skills		
PO6	Work effectively and respectfully with diverse teams.	Cooperation/Team work		
PO7	Critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective.	Scientific reasoning		
PO8	Work independently, identify appropriate resources required for a project, and manage a project through to completion.	Self-directed learning		
PO9	Effectively engage in a multicultural society and interact respectfully with diverse groups.	Multicultural competence		
PO10	Adopt objective, unbiased and truthful actions in all aspects of work.	Moral and ethical awareness/reasoning		
PO11	Have a capability for mapping out the tasks of a team or an organization.	Leadership readiness/qualities		
PO12	Acquire skills to learn how to learn.	Lifelong learning		
PO13	Develop social, cultural and national integrity.	Reflective thinking		

Criteria II (2.6.1): Program Specific Outcomes (2021-2022)					
Name of Program (with Specialization) - Bachelor of Science in Geography					
	Program Outcomes				
PO. No.	After successful completion of this program, a student will be able to	Graduate Attributes			
PSO1	Apply clear written and oral communication skills to communicate results of research	Communication skill			
PSO2	Demonstrate connections between everyday life at the local scale and the larger economic, social, and/or environmental forces that network them into a global community	Lifelong learning			
PSO3	Evaluate cultural, social, and environmental processes with a particular focus on space and place, critical theory, practical application, analysis and/or social justice.	Critical Thinking			
PSO4	Think in spatial terms to explain what has occurred in the past as well as using geographic principles to understand the present and plan for the future.	Disciplinary Knowledge			
PSO5	Present completed researches, including an explanation of methodology and scholarly discussion, both orally and in written form and, wherever possible, utilize cartographic tools and other visual formats.	Research Related Skills			
PSO6	Create the national integrity and fraternity among the students and social groups.	Moral and Ethical Values			

Criteria II (2.6.1): Course Outcomes (2020-2021)				
Name of Program (with Specialization) - Bachelor of Science in Geography				
		F.Y.B.Sc. Geography		
Title of CourseCO. No.Course Outcomes		Course Outcomes		
	CO1	Explain principal terms, definitions, concept and theories of Geomorphology.		
	CO2	Discuss how different scales of time and space affect geomorphological processes and the development of micro to mega scale landforms.		
GG-111:Introduction to Physical Geography–I (Geomorphology)	CO3	Apply knowledge of basic landforms from tectonic, volcanic, fluvial, glacial, Aeolian and coastal environments.		
(Semester I)	CO4	Describe the different Materials of the earth crust, rock types, types of weathering, mass movements and types of slope.		
	CO5	Categorizes slope Segments in various types.		
	CO6	Compares exogenous and endogenous processes in the formation of landforms.		
	CO1	Describe composition and Structure of Earth Atmosphere		
GG-112: Introduction to Physical Geography -II	CO2	Explain principal terms and concept of Climatology.		
(Ggeography of	CO3	Apply skill of weather forecasting and application in deferent sectors of Climatology.		
Atmosphere and	CO4	Compare the Lapse Rate, Stable and unstable Atmosphere, Air Masses & Fronts.		
Hydrosphere) (Semester	CO5	Explain basic concepts of hydrological cycle, condensation and evaporation.		
1)	CO6	Identify the Climatic regions of Indian sub-continent.		
	CO1	Explain principal terms, definitions, and concept of geomorphology.		
	CO2	Describe drainage network analysis and drainage basin relief analysis.		
GG-113: Practicals in Physical Coography	CO3	Constructions of various map projection.		
(Semester I)	CO4	Apply and locate statistical data on Thematic Maps.		
	CO5	Reading & Design of maps according to statistical data.		
	CO6	Planning and executing field surveys.		

	CO1	Identify various Human Races throughout world.			
	CO2	Comparision of various economic activites.			
GG-121: Introduction to	CO3	Critical Evalution of Various Human Races in India			
Human Geography (Semester II)	CO4	Carryout the survey's of various economic activities.			
(Semester II)	CO5	Analyze various factors determines the economic activities in particular environment			
	CO6	analyze man and environment relationship			
	CO1	Identify various patterns of settlement using topo sheet.			
	CO2	Explain Evaluation of settlement and population geography globally.			
GG-122: Population and	CO3	Constrction of Various settlement pattern			
Settlement Geography (Semester II)	CO4	Apply of theories of population growth to study settlement history.			
(Semester II)	CO5	Evaluate effects of technology on shelter and pattern of settlement.			
	CO6	Describe factors influencing growth and distribution of settlements.			
	CO1	Apply different models for statistical analysis			
	CO2	Data analysis and presentation using computer			
GG-125: Practicals in Human Geography	CO3	Constrctions of survey report.			
(Semester II)	CO4	Derive conclusions from the analysis of own data.			
	CO5	Assess the language used to describe Geography experiments and how it can alter			
		perceptions of the method and results.			
		S.Y.B.Sc Sem III			
Title of Course	CO. No.	Course Outcomes			
	CO1	Explain principal terms, definitions and concept of environment geography.			
	CO2	Describe various environmental issues with their trend and impact.			
GG-231: Environmental	CO3	Identify the different Disaster management techniques with their application.			
Geography -I (Semester	CO4	Identify & describe the various environmental issues in India and their management.			
III)	CO5	design solution orientaed environment projects			
	CO6	Apply and use of ICST for different disaster management			

	CO1	Describe geographical location, economic position and geological structure of Maharashtra.				
GG-232 :Geography of	CO2	Explain physiographic divisions and drainage system of Maharashtra.				
Maharashtra	CO3	Apply climatic related knowledge for cropping pattern.				
(Physical)- I (Semester	CO4	Identify soil types and their distribution in Maharashtra by using geographical map.				
III)	CO5	Evaluate population growth and distribution in Maharashtra.				
	CO6	Camparison ethe mineral power resources and major Industries distribution in Maharashti				
	CO1	Explain principle terms, definitions, and methods used in surveying				
	CO2	Implementation of computation and drawing for surveying				
GG -233: Surveying- I	CO3	Apply the knowledge of surveying to survey of a selected fields				
(Semester III)	CO4	Write report in proper format.				
	CO5	Constuction of projects through surveys				
	CO6	Preparation of maps using survey methods				
		S.Y.B.Sc Sem IV				
	CO1	Awareness of environment assessment methods				
	CO2	Recognised the environmental laws				
GG-241: Environmental Geography -II (Semester	CO3	Application of various conservation methods				
IV)	CO4	Identify the different Disaster management techniques with their application				
,	CO5	Describe the Environmental Planning and their Management.				
	CO6	Identify the various Environmental Problems and their solutions.				
	CO1	Describe the Agriculture problems and prospects of Maharashtra.				
	CO2	Describe the Population and Settlement in Maharashtra				
	CO3	Camparison Population distribution and their distribution in Maharashtra				
GG-242 :Geography of Maharashtra (Human)-II (Semester	CO4	Evaluate prospectus in Industry in Maharashtra and the role of MTDC and Role of MIDC in industrial development in rural area of Maharashtra.				
IV)	CO5	Aaply for all agriculture pattern in rural area				
	CO6	identify agriculture problems in variuos region				

	CO1	Develop practical skill and use of various types of surveying.			
	CO2	To make students aware of the new techniques, accuracy and skills of surveying			
GG -245: Surveying- II (Somostor IV)	CO3	Explain basic concepts of Cartographic Techniques and Surveying.			
(Semester IV)	CO4	Identify different types of Survey.			
	CO5	Apply Surveying Techniques in Geography.			



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Department of Chemistry Programme Outcomes, Programme Specific Outcomes and Course Outcomes



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Programme	Programme Outcomes (POs)	Programme Specific Outcomes	Course Name	Course	Course Outcomes (COs)
Name		(PSOs)		Code	
Bachelor of Science	 PO 1: Gain a thorough knowledge and understanding of concepts and principles in all science subjects. PO 2: Communicate the subject knowledge in a clear and simple manner in writing and oral PO 3:. Identify the given problem and apply, theories/assumptions for solving the same. related to real life situations. . PO 4: Plan, execute, interpret, and report the results of the experiments to investigate. PO 5: Work effectively and 	 PSO 1: learn the basic terms, theories, principles of chemistry and of its different sub-subjects, PSO 2: identify and analyse problems and issues with well-defined solutions. PSO 3: get the hands on training of the chemistry related equipment's. PSO 4: create an awareness about the impact of chemistry on the environment, in and ouside the scientific society. PSO 5: know the safety rules of chemistry required for working in and outside the laboratory. 	F.Y.B.SC (CH-101) Physical Chemistry		 CO 1: Define Exergonic and endergonic reaction. Gas equilibrium, equilibrium constant and molecular interpretation of equilibrium constant. CO 2: Discuss concepts such as Common ion effect hydrolysis constant, ionic product, solubility product CO 3: Apply thermodynamic principles to physical and chemical process Chemistry CO 4: Explain the degree of hydrolysis and pH for different salts, buffer solution. CO5: Calculations of enthalpy, Bond energy, Bond dissociation energy, Variation of enthalpy with temperature -Kirchoff's CO5: Decide the degree of hydrolysis and pH for different salts and Buffer



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	PSO 6: use modern techniques,	F.Y.B.SC	CO 1: Define Physical Effects, Electronic
	software's and web resources	(CH-102)	Displacements; Inductive Effect, Electrometric
respectfully as a team member in the		Organic	Effect, Resonance and Hyperconjugation.
classroom, laboratory and field-		Chemistry	CO 2: Understand the fundamentals, principles,
based situations.			and recent developments in the subject area.
			CO 3: Interpret R/S, EZ Configurations of
			organic compounds.
			CO 4: Explain Interconversion of Wedge
			Formula. Newmann, Sawhorse and Chemistry
			Fischer representations. Conformations
			concerning ethane, butane and cyclohexane.
			CO 5: Develop a method for the preparation of
			alkane, alkene, and alkyne.
			CO 6: Create the foundation for research and
			development in Chemistry.


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and experiences to analyse and interpret the scientific information with learned scientific reasoning PO7: Get sensibly aware with the subject facts that can be applied for the society. PO8: Apply modern library search tools to locate, retrieve, and evaluate subject-related information. PO9: Identify the subject resources required for a project and manage different projects. PO10: Motivate and inspire other colleagues/students in subject related activities. PO11: Inculcate continuous learning habit through multiple techniques.	(CH-103) Chemistry Practical Course-I	 CO 1: Recall the Importance of chemical safety and Lab safety while performing experiments in the laboratory CO 2: Describe and demonstrate data using graphical representations and communicate the report. CO 3: Set up the apparatus properly for the given experiments. Perform all the activities in the laboratory with neatness and cleanness. CO 4: Explain mole concept and its application in the preparation of normal and molar solutions, and use of mole concept in quantitative calculations for inorganic analysis; CO 5: Acquire laboratory skills to collect, interpret, analyse, and report chemical data. CO 4: Plan quantitative analysis
	(CH-201) Inorganic Chemistry	 CO 1: Define various types of chemical bonds- Ionic, covalent, coordinate and metallic bond CO 2: Discuss Block, group, modern periodic law and periodicity, stability of half-filled and filled orbitals. CO 3: understanding of Atomic Structure, geometry and effect of lone pairs Inorganic Chemistry with examples such as CIFs, Cl₂O, BrFs. CO 4: Design a Skeleton of the long form of the



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	24012	
	35093 36093	 periodic table. CO 3 : To introduce students to writing medium, audio-visual media. CO 4: To develop skills of employability among the students. CO 1: To introduce students scientific study of language. CO 2: To introduce students to the national language and its history. CO 3: To develop fluency and writing skills in Hindi Language.
	35091 36091 35092	 CO 1: To introduce students to the basics of Memoir and Sketch as a literary form and create their interest in reading Memoir and Sketch. CO 2: To introduce students to the basics of Gajal in literature form and develop their interest in reading Gajal CO 3: To develop written skills of students. To introduce them for News writing and Meeting Agenda and minutes and official letters.



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		36092	 CO 1: To introduce students to the History of Hindi Literature. CO 2: To introduce students to the best Hindi literature and their writer. CO 3: To develop literary sensibility and sense of cultural diversity in students.
			CO 1: To introduce students to the Linguistics.CO 2: To introduce students to the scientifically study of Language and its branches.CO 3: To introduce students to Hindi language and its types and its calligraphy.



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		 CO 5: Interpret the concept of different types of valence shell electron pairs and their contribution to bonding CO 6: Application of non-bonded lone pairs in the shape of the molecule CO 3 : To introduce students to Cinema.
	(CH-202) Analytical Chemistry	 CO 1: Define term mole, millimole, molar concentration, molar equilibrium concentration and Percent Concentration. CO 2: Outline the Basics of type determination, characteristic tests and classifications, reactions of different functional groups, CO 3: Calculations of mole, molar concentrations and various units of concentrations will be helpful for the preparation of the solution CO 4: Assemble SI units, the distinction between mass and weight CO 5: Decide Working of pH meter, elemental analysis CO 6: Designing flow sheet of separation of binary mixture, Purification techniques.
	(CH-203) Practical Chemistry	 CO 1: Describe Inorganic Estimations using volumetric analysis CO 2: Discuss the Synthesis of Inorganic compounds CO 3: Analysis of commercial products CO 4: Purification of organic compound



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		CO 6: CO 6:



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Programme	Programme Outcomes (POs)	Programme Specific Outcomes	Course Name	Course	Course Outcomes (COs)
Name Bachelor of Science	 PO 1: Gain a thorough knowledge and understanding of concepts and principles in all science subjects. PO 2: Communicate the subject knowledge in a clear and simple manner in writing and oral PO 3: Identify the given problem and apply, theories/assumptions for solving the same. related to real life situations. PO 4: Plan, execute, interpret, and report the results of the experiments to investigate. PO 5: Work effectively and respectfully as a team member in the classroom, laboratory and field-based situations. 	(PSOs) PSO 1: learn the basic terms, theories, principles of chemistry and of its different sub-subjects, PSO 2: identify and analyse problems and issues with well-defined solutions. PSO 3: get the hands on training of the chemistry related equipment's. PSO 4: create an awareness about the impact of chemistry on the environment, in and ouside the scientific society. PSO 5: know the safety rules of chemistry required for working in and outside the laboratory. PSO 6: use modern techniques, software's and web resources	F.Y.B.SC (CH-101) Physical Chemistry F.Y.B.SC (CH-102) Organic Chemistry	Code	 CO 1: Define Exergonic and endergonic reaction. Gas equilibrium, equilibrium constant and molecular interpretation of equilibrium constant. CO 2: Discuss concepts such as Common ion effect hydrolysis constant, ionic product, solubility product CO 3: Apply thermodynamic principles to physical and chemical process Chemistry CO 4: Explain the degree of hydrolysis and pH for different salts, buffer solution. CO5: Calculations of enthalpy, Bond energy, Bond dissociation energy, Variation of enthalpy with temperature -Kirchoff's CO5: Decide the degree of hydrolysis and pH for different salts and Buffer CO 1: Define Physical Effects, Electronic Displacements; Inductive Effect, Electrometric Effect, Resonance and Hyperconjugation. CO 2: Understand the fundamentals, principles, and recent developments in the subject area. CO 3: Interpret R/S, EZ Configurations of organic compounds. CO 4: Explain Interconversion of Wedge Formula. Newmann, Sawhorse and Chemistry Fischer representations. Conformations concerning ethane, butane andcyclohexane. CO 5: Develop a method for the preparation of alkane, alkene, and alkyne. CO 6: Create the foundation for research and
	PO6: Correlate the ideas, evidence		(CH-103)		CO 1: Recall the Importance of chemical safety
	and experiences to analyse and		Chemistry		and Lab safety while performing experiments in



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			CO 4: Perform all the activities in the laboratory with neatness and cleanness CO 4: Plan for Preparations and Mechanisms of reactions
	S.Y.B.SC (CH-301) Physical And Analytical Chemistry	23131	 CO 1: Define the order of reaction, molecularity of reaction, half-life period of reaction, quantum yield, fluorescence, phosphorescence, photocatalysis Nernst distribution law. partition coefficient, qualitative and quantitative analysis, error, accuracy, precision, significant figure, interfering radicals, common ion effect, solubility product: CO 2: Explain the terms and facts related to Chemical kinetics, first-order and second-order chemical reaction, the law of photochemistry, theory of extraction, organic and inorganic qualitative analysis. CO 3: Solve numerical problems related to Physical and analytical chemistry. CO 4: Distinguish between first and second-order chemical reaction, accuracy and precision in analysis, photochemical and thermal reactions: CO 5: Prove rate equation for first and second-order chemical reaction, Nernst distribution law, Lambert's Beers Law, the efficiency of extraction;



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		CO 6: Calculate order of and molecularity of chemical reaction, absolute and relative error in analysis, the standard deviation in analysis.

GANDHI WOLAN	Mahatma Gandhi Arts, Science & Comme	Vidyamandir's rce College 1	Harsul	CO 4: Perform all the activities in the laboratory with neatness and cleanness CO 4: Plan for Preparations and Mechanisms of reactions
(Affiliated Phone N Web : W	Tal. Tryambakeshwar, Dist. to Savitribai Phule Pune University, Pun No.: 02558 227292 ww.mgv.org.in/harsulcollege	Nashik – 422 204 Nashik – 422 204 (CH-301)Mob. No.: Physical And E-mail : harsulc Analytical Chemistry	ASC/048 : 901102 ollege@g	 Preactions P(Q gg g) efine the order of reaction, molecularity Pf seaction, half-life period of reaction, quantum yield, fluorescence, phosphorescence, mail.com photocatalysis Nemst distribution law. partition coefficient, qualitative and quantitative analysis, error, accuracy, precision, significant figure, interfering radicals, common ion effect, solubility product: CO 2: Explain the terms and facts related to Chemical kinetics, first-order and second-order chemical reaction, the law of photochemistry, theory of extraction, organic and inorganic qualitative analysis. CO 3: Solve numerical problems related to Physical and analytical chemistry. CO 4: Distinguish between first and second-order order chemical reaction, accuracy and precision in analysis, photochemical and thermal reactions: CO 5: Prove rate equation for first and second-order chemical reaction, Nernst distribution law, Lambert's Beers Law, the efficiency of extraction;
				chemical reaction, absolute and relative error in analysis, the standard deviation in analysis.



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	(CH-302) Inorganic And Organic Chemistry	23132	 CO 1: Define terms related to MOT, coordination compound, Hydrocarbons. CO2: Explain the terms LCAO principle, types of MO's. CO 3: Recognize functional groups and their reactions, addition reaction. nucleophilic substitution, elimination reaction. CO 4: Apply reaction mechanism to predict the products of the reaction in Organic SNI, SN2, E1, E2, rearrangement reaction. Apply rules of absolute chemistry configuration and will predict the configuration at chiral C atom CO5: Decide whether the reaction SN1, SN2, E1, E2 Reaction. CO6: Plan for the synthesis of Alcohol, Ether, and Phenols.
	(CH-303) Practical Chemistry-I	23133	CO1: Determine the rate of reaction experimentally CO2: Analysis of organic and inorganic compound qualitatively CO3: Students able to make solutions of different concentrations
	(CH-401) Physical And Analytical Chemistry	24131	CO1: Define Raoult's law, Henry law, Dalton's law, Ideal andnon-idealsolutions, Transmittance, absorbance, Molar absorptivity. CO2: Understand One component system, Lever rule, Phase rule.



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(CH-402) Inorganic And Organic Chemistry	24132	 CO3: Apply conductometric methods of analysis to the real problem in the analytical laboratory. CO4: Explain the term Column chromatography Phase equilibrium, Thermodynamic aspect of the ideal solution. CO5: Solve problems based on theory/equations. CO6: Design flow sheet of different type of chromatography CO1: Draw the structure and stability of different conformations of Cyclohexane and substituted cyclohexane CO2: Discuss the preparation, physical and chemical properties of amines, carboxylic acid, Aldehyde and ketones. CO3: Inorganic and Apply Valence bond theory, crystal field theory and molecular orbital Organic theory to different types of complexes. CO4: Explain Isomerism in coordination complexes. CO5: Calculate field stabilization energy and magnetic moment for various complexes.
(CH-403) Practical Chemistry	24133	CO1: Determine cell constant dissociation constant and perform conductometric titrations



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			 CO2: Perform column chromatography for separation of binary mixture of cations CO3: Determine percent concentration for the phenol water system and study Practical the effect of added electrolyte on the critical solution temperature of phenol-water system. CO4: Verify the Freundlich and Langmuir adsorption isotherm for adsorption of acetic acid on activated charcoal Perform organic and coordination compounds synthesis. CO5: Apply Beer's law and calculate absorbance of unknown concentration solution.
	T.Y.B.SC SEMISTER-V (CH-501) Physical Chemistry-I	35131	 CO1: Recall various terms related to electrolytic conductance, molecular spectroscopy, chemical kinetics and phase diagram CO2: Derive equations for half-life of third order reaction, rate constant of third order reaction, transport number, dipole moment, molar polarization, reduced mass of diatomic molecule, etc. CO3: Plan for to solve numerical related to electrolytic conductance, molecular spectroscopy, chemical kinetics and phase diagram.



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(CH-504) Inorganic Chemistry	35134	 CO1: Define terms related to molecular orbital theory, coordination chemistry CO2: Explain mononuclear and hetero nuclear molecules, LCAO principle. Inorganic primary and secondary valency, bond order and magnetic properties molecules. CO3: Apply IUPAC nomenclature rules nd writ nsame of coordinate complexes, predict structure of complexes by using hybridization CO4: Prove MO energy level diagrams for homo and hetero nuclear diatomic molecules, crystal field splitting energy level dig. for octahedral and tetrahedral complexes
(CH- 507) Organic Chemistry- I	35137	 CO1: Define Organic acid and base. Optical isomerism. Nucleophile and Leaving group inversion and Racemization. Elimination Reaction. Aromatic substitution Reaction CO2: Discuss different type di-substituted cyclohexane rings, Reactivity concept. Pkb and Pka Concept. CO3: Predict the product Nucleophilic and substitution reaction.



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			 CO4: Examine the evidence, Mechanism. Stereochemical aspect in elimination reaction, Reactivity, and mechanism of the electophillic reaction. CO5: Make the Structure 1.1.1.2,1.3and 1,4 Dialkyl dimethyl cyclohexane
	(CH-502) Analytical Chemistry-I	35132	 CO1: Define common ion effect, solubility product, solubility of precipitation. CO2: Discuss different method of analyse, methods of colour comparators CO3: Predict different wavelength selectors and their application CO4: Distinguish between TGA &DTA Voltammetry & polarography and AAS and FES. CO5: Evaluate percent by using TGA &DTA.
	(CH-505) Industrial Chemistry-I	35135	CO1: know the importance of chemical, industry, insecticides, concept of basic chemicals, nutritive aspects of food CO2: distinguish the industries, agrochemicals, petrochemical, food and their contents CO3: differentiate the working principle, processes, products and applications of the Chemical Industry, food and starch industry.



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		(CH-511(A)) Environmental Chemistry	351311 (A)	 CO1: Describe the term Ozone depletion, Hydrosphere and water pollution CO2: Understand the social issues CO3: Analyze WHO limits for toxic materials in water stream CO4: Explain the term Quality measures, Quality of potable water. CO5: Plan for conservation of environment
	Ch	Semister-VI (CH-601) (CH-602) Physical hemistry-II And III	36131 36132	 CO1: Understand the correct equation such as Nernest equation, representation of cell and cell reactions, Bragg equation, half of radioactive materials. CO2: Apply knowledge to explain experimental observation and should able to correlate theory and particle or observed facts. CO3: Explain various terms related to electrochemistry, nuclear chemistry andapplication of radioactivity, crystallography and basics of quantum chemistry. CO4: Perform all the activities in the laboratory with neatness and cleanness
	(C) Cł	CH-604 And 605) Inorganic hemistry-II And III	36135 36136	CO1: Define lanthanides, actinides, semiconductors, superconductor, close packed structure, lanthanide contraction, super heavy elements, catalyst, catalysis.



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			CO2: Describe lanthanide contraction, types of holes in close pack structure CO4: Explain applications of lanthanides and actinides, superconductivity ,acetic acid synthesis, propert ies of heterogeneous catalyst, separation of lanthanides CO3: Derive names of super heavy elements and symbols form IUPAC rules
	(CH-607 And 608) Organic Chemistry- II And III	36137 36138	 CO1: Definition and formation of carbanions, Disconnection, Synthons, Synthetic equivalence, Functional Group Interconversion, Target Molecule, UV Spectroscopy and Beer's law CO2: Discuss Possible mechanism of some known name reactions involving carbanion CO3: Apply chemical shift for determinations of Organic Compounds CO4: Distinguish compounds by PMR Shielding and Deshielding, stretching and Bending Vibrations. CO5: Plan for use NMR for prediction of organic Structure.



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(CH-611(A)) Analytical Chemistry-II	361311 (A)	 CO1: Discuss Techniques of solvent extraction, Types of chromatography CO2: Difference between KD and D,batch and multiple extraction CO3: Apply different Technique for purification of organic and inorganic compounds. CO4: Explain the term Nephelometry and Turbidimetry CO5: solve the numerical problems
(CH-610(A)) Chemistry Of Soil And Agrochemicals	361310 (A)	 CO1: know the importance of chemical, industry, insecticides, concept of basic chemicals, nutritive aspects of food CO2: Distinguish the industries, agrochemicals, petrochemical, food and their contents CO3: apply the subject knowledge for the real life situations CO4: Differentiate the working principle, processes, products and applications of the Chemical Industry. Cement Industry, and food and starchindustry. CO5: Compare the industries according to their product , application and safety measures. CO6: Create the flow sheet of industrial processes



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	(CH-503 And 603) Physical Chemistry Practical-I And II	35133 36133	 CO1: Describe reaction kinetics practically. CO2: Discuss conductometric, potentiometric, colorimeter and pH metric principles. CO3: Apply conduct metric, potentiometric, colorimetric and pH metric measurement in quantitative analysis. CO4: Report records of chemical and instrumental analysis. CO5: Prove results of experiment and their correlation with theory. CO6: Perform all the activities in the laboratory with neatness and cleanness
	(CH-506 And 606) Inorganic Chemistry Practica-I And II	35136 36136	 CO1: List of quantitative and qualitative analysis. CO2: Understand the purpose of collecting, interpreting, analysing, and reporting (in written form) chemical data. CO3: Explain Mole concept and its application in the preparation of normal and molar solutions, and use of mole concept in quantitative calculations for inorganic analysis. CO4: Decide methods and instruments that can be used qualitative and quantitative analysis. CO5: Create proper quantitative methods for analysis of samples containing inorganic substances CO6: Perform all the activities in the laboratory with nestness and cleanness



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	(CH-509 And 609) Organic Chemistry Practical-I And II	35139 36139	CO1: Write balanced equation for all the reaction performed in laboratory and write it mechanism. CO2: Discuss organic reactions their applications. CO3: Purpose handling different equipment's and analytical instruments CO4: Explain the separation of mixture of organic compound and their identification by chemical methods. CO5: Decide organic synthesis and follow the progress of the reaction by using TLC technique CO4: Plan for Synthesis and purify organic compounds.
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Prof. G.G.Ghatkar (Head Of Department Name And Signature)

Mahatma Gandhi Vidyamandir's Arts ,Science and Commerce College Harsul Tal. Trambkeshwar Dist Nashik 422204

Programme Specific Outcomes, & Course Outcomes of B.SC Department of Botany

> Academic Year 2021-22

Programme Specific Outcomes: B.Sc. Botany(USB)

	Name of the Department : Botany				
	Program Specific Outcomes				
At the end	of the programme, student will be able to				
At the enu	of the programme, student will be able to				
1	Analyse and present the research data using bioinformatics and biostatistics tools.				
2	Apply knowledge for conservation of endemic and endangered plant species				
3	Augment the recent developments in the field of Molecular and cell Biology, Biotechnology, Computational Botany and relevant fields of research and development.				
4	Use creativity, critical thinking, analysis and research skills to solve biodiversity and environmental issues.				
5	Students get conceptual knowledge of entrepreneurships in mushroom cultivation, Biofertilizers and Biopesticides production, plant tissue culture laboratories, Enzyme production, Fermentation, Single cell proteins etc.				
6	Students will be well versed with various mechanisms of GMOs and molecular techniques.				

Class: F.Y.B.Sc Semester-I Cours ecode At the end of the course, student will be able to Paper & cours e title Outline cryptogams and phanerogams. USB(BO Define general characters of cryptogams and Phanerogams. 111) Plant Life and Classify the members of plants groups in to cryptogams and Phanerogams. I Utilization-I Describe the Life cycle of plant forms of cryptogams and Phanerogams. Compare and describe the salient features of Cryptogams. Summarize type of diversity compare, organize and structure ecological grouping USB (BO Define plant morphology and anatomy 112) Plant Discuss morphology of vegetative and reproductive parts of plants. Morpholo g Describe anatomy of Monocot and dicot plants. Π and У Anatomy Explain types of plant tissues. Understand and describe reproductive parts of the Angiospermic plants Formulate and compose of floral formula and floral diagram Recognize the live forms of Cryptogamic and Phanerogamic plants. Analyse and describe botanical concepts, including plant anatomy. USB (BO 113) Illustrate the floral parts, fruits, leaves and their types. Practical Ш Categorize the plants into Monocot and Dicot on the basis of anatomical Botany-I characters. Field survey for identification of angiospermic plants Tree plantation Semester-II Understand about the diversity, systemic and economic importance of higher USB (BO plants

Course Outcomes: B.Sc. Botany (USB)

	121) Plants	Explain identify and classify the higher plants				
Ι	life and UtilizationII	Know the Economic Importance of higher plants				
		Compares the features of higher plants.				
		Aware the status of Phanerogams as a group in plant kingdom.				
		Apply the economic and ecological importance of flowering plants				
		Define and describe plant physiology				
		Explain and recognise physiological phenomenon in plants				
	122)	Describe the mechanism of physiological phenomenon				
	Principles of plants Science	Distinguish and differentiate cell structures of Types of cells				
П		Understand ultrastructure and functions of cell organelles, different biomolecules in cells				
		Distinguish, compare cell cycle in plant				
	USB (BO 123)	Describe morphological, reproductive characters, taxonomy of higher plants.				
ш	Practical based on	Discuss and compare internal organization of plants				
111	BO121 and Bo	Understand categories and explain utilization of higher plant				
	122	Preparation and utilizations of different stains, medium etc.				
		Estimation of different biomolecules				
		Aware about conservation and sustainable use of plants				

	Class : S.Y.B.Sc.					
		Semester-III				
Paper	Course code & course title	At the end of the course, student will be able to				
		Taxonomy of Angiosperm and Plant Ecology				
	USB (BO 231)	Define different terminology of taxonomy				
I Ta	Taxonomy of	Discuss and explain about the systematic position of Angiosperm				
	Angiosperm	Understand, summarize about plant nomenclature				

	and Plant Ecology	Compose, formulate the floral variations in angiosperm families, their phylogeny and evolution.
		Define, recognize and describe scope of Ecology
		Understand the various physiological life processes in plants
Π	USB (BO 232) Plant Physiology	Summarize, describe and distinguish of mechanisms of physiological phenomenon in plants
		Demonstration, examine and classify about various mechanisms of growth, development and functioning of plants
		Differentiate abiotic and biotics factors affecting on functioning of plants
		Discuss, describe and differentiate process of flowering in plants
		Demonstrate, examine and describe process of seed germination
III	USB (BO 233)	Memorize, recognize and explain different plant terminology
		Demonstrate and distinguish and Categorize different plant families
		Compare and differentiate different Ecological grouping of plants

Practical based on Bo231 and Bo 232	Practical	Sampling, testing and structuring of vegetation different group
	based on Bo231 and Bo 232	Experimenting of growth, development and reproduction in plants as well as understand the physiological changes with the environmental impact.
		Demonstrated different experiment of plant physiology and Ecology
		Semester-IV
	USB (BO241) Plants Anatomy and Embryology	Define and explain different terminology of plants anatomy and Embryology
Ι		Discuss and describe the scope & importance of Anatomy and Embryology
		Recognize, compare, describe and classify different tissues systems in internal organization of plants
		Compare and classify internal organization of plant organs
		Demonstrate, explain, classify and describe the structure and development in plant embroyology
		Distinguish, compare and explain process of post fertilization embroygeny

П	USB (BO 242) Plant Biotechnology	Describe, clarify and Summaries Concepts, tools and techniques related to tissue culture
		Demonstrate the different methods used for genetic transformation of plants
		Explain the basic principles and modern age applications of recombinant DNA technology.
		Judge, evaluate and summarize bioinformatics to prepare database
		Demonstrate and application phytoremediation techniques
		Discuss and distinguish biofuel technology and role of plants as source of biofuels
		Classify, distinguish and categories different tissues systems in plants
	USB (BO243) Practical based on BO241 and Bo 242	Demonstrate of biotechnology techniques and anatomy
ш		Examine and experiment related to biotechnology
		Experiment/ demonstrate/ design to different techniques in biotechnology
		Discuss, describe and differentiate in embrogeny
		Experiment/ demonstrate/ design to different techniques in biotechnology

		Class :T.Y.B.Sc
		Semester V
Pap er	Course code & course title	At the end of the course, student will be able to
Ι	USB (BO351)	Define and Describe Lower Cryptogams.

Algae a Fungi	Algae and	Classify various system of Lower Cryptogams
	Fungi	Demonstrate and explain the Life cycle of Lower Cryptogams
		Distinguish And compare Habit and Habitat of Lower Cryptogams
		Judge and evaluate General characters of Lower Plants
		Summaries the Life cycle of Lower Plants.

	USB (BO352)	Describe Archegoniate
		Compare and classify Archegoniate
П		Demonstrate and explain the Life cycle of Archegoniate
	Archegoniate	Compare Habit and Habitat of Archegoniate
		Judge and evaluate General characters of Archegoniate
		Summaries the Life cycle of Archegoniate.
		Define and Describe Angiosperms
	USB (BO 353) (Spermatophyte	Explain the Pseudanthial theory and Transitional-Combinational theory
Ш	and Palaeobotany)	Classify Cronquist's system And APG IV System
	, , , , , , , , , , , , , , , , , , ,	Compare Habit and Habitat of Angiosperms and Gymnosperms
		Evaluate General characters of Angiosperms and Gymnosperms
		Summaries the Life cycle of Pinus and Gnetum.
	USB (BO 354) Plant Ecology	Define Plant Ecology
		Discuss Interrelationship between Living world
IV		Classify Ecology
		Distinguish between Ecology branches
		Evaluate and Summarize Ecological Impact Assessment
		Value of Environmental Audit.
	USB(BO 355)	Define and Explain concepts and terminology
		Recognise and Discuss cell Organelles
V	Molecular	Classify, differentiate and biogenesis of cell organelles
	Biology	Discussed and examine cell signalling and replication
		Summarize Molecular Biology and gene expression
		Experiment of Griffith's and Avery
VI	USB (BO 356)	Define and Explain and terminology of Genetics
	Genetics	Describe and summarised gene interaction

		Compare and discuss linkage and recombination
		Explain and compare the mutation and its types
		Discuss and analysis of inheritance
		Interrelationship to chromosomal behaviour pattern with different mendelian inheritance
		Classify, distinguish and categories different Algae
	USB (BO 357)	Classify, distinguish and categories different Fungi
	Practical based	Demonstrate and Classify of Bryophytes
I.	on BO – 351 and BO-352	Discuss, describe and differentiate Morphological Character of Bryophytes.
		Demonstrate and Classify of Pteridophytes
		Discuss, describe and differentiate Morphological Character of Pteridophytes
		Classify, distinguish and categories different Family
	USB (BO 358) Practical based on BO – 353 and BO-354	Distinguish ,compare and describe Vegetative and Reproductive Character.
П.		Experiment and demonstrate internal and external morphology in Pteridophytes and Gymnosperm
		Demonstrate / Design Fossils
		Experiment / Test on Polluted water
		Discuss of Ecosystem
		Demonstrate / Design Cytological Techniques
	USB (BO 359) Practical based	Distinguish, compare, and describe Mitosis and Meiosis
		Experiment/ Demonstrate Mitosis
111.	on BO – 355 and BO-356	Discuss/Demonstrate RNA and DNA
		Experiment / Demonstrate Onion roots cell
		Memorize, recognize and explain of Multiple Alleles(Blood Group in Human)
		Explain, define terminology the scope of Medicinal plants
	USB (BO 3510) MedicinalRotany	Describe and summarize various system of medicine
Ι	I	Discuss and explain different technique of conservation

	Differentiate and distinguish of propagation of medicinal plants
	Evaluate the application of ethnobotany and folk medicine

		Create formula of ethnobotany or folk medicine
Π	USB (BO 3511) Plant Diversity and Human Health	Describe the different terminology of plant diversity and conservation
		Discuss the types and value of Plants diversity
		Explain ethical, aesthetic values of biodiversity
		Examine and classify management of plant diversity
		Distinguish and evaluate conservation of biodiversity
		Summarize the role of plant human welfare
		Semester VI
		Compare and classify of mineral elements and essential elements
	USB (BO 361) Plant Physiology and Metabolism	Explain Photosynthetic mechanism and distinguish between light reaction and dark reaction
Ι		Discuss and summarize the physiological process
		Mechanism of stomata opening and closing at depend upon the light
		Examine vascular tissue
		Differentiated and compare plant growth hormones Discuss in photomorphogenesis to defend on red and far red light
		Describe and Define Biochemistry
	USB (BO 362) Biochemistry	Discuss and Describe Biomolecules
П		Classify and Relate Amino acid and Proteins Structure
		Write Enzymes Properties
		Categorise Vitamins
		Compare Carbohydrates and Lipids
	USB (BO 363) Plant Pathology	Describe and define terminology of Plant Pathology
		Discuss and describe the of mechanism Plant Disease
Ш		Evaluate and identified the Disease of Plant
		Compare of Viral and Non-Parasitic Disease
	Distinguish Fungal and Bacterial Plant Disease	

		Use of Chemical control to plant Disease
IV	USB (BO364)	Define and describe terminology of Evolution
		Discuss mechanism of Organic Evolution
		Differentiate Lamark's and Darwinism theory

	(Evolution and	Summarise Population
	genetics)	Support Speciation types in isolating Mechanism
		Evaluate Geological Time Scale based on fossils
		Define and Describe Biotechnological terminology
	USB (BO 365)	Discuss Plant Tissue culture techniques
V	biotechnology	Demonstrate and perform Experiment of Tissue Culture
		Differentiate Direct and Indirect gene transfer
		Summarise importance, application of biotechnology
		Distinguish Microbial technology and Nano Biotechnology
	USB (BO 366)	Define and Describe Plant breeding terminology
	and Seed	Discuss the Types and techniques of Plant Breeding
VI	technology	Evaluation and Importance, scope of Plant Breeding
		Summarise Seed Technology techniques
		Application and evaluated seed testing methods
		Generation the application of Seed Production
		Experiment / Demonstrate of osmotic potential of plant cell by plasmolysis method
	USB (BO367)	Describe and Discuss of photosynthesis mechanism
Ι	Practical based on BO – 361 and BO-362	Experiment / Estimate of Amino acid by paper chromatography method
		Estimation /Test of Proteins
		Demonstration/Examine of enzyme activity
		Select Different qualitative test use of biomolecules(Starch, Lipids and Proteins)
		Demonstrate/Recognise Plant Pathogens
	USB (BO368)	Discuss /Describe of various Culture method
		10

Ш	(Practical based on BO – 363 and BO-364)	Demonstrate and Classify of Fungal Disease
		Distinguish / Differentiate Viral and Non-Parasite Disease
		Describe/Discuss of Geological time Scale
		Demonstrate and Collect Fossil Plant
III	USB (BO 369)	Experiment / Demonstrate Preparation of different techniques

	(Practical based on BO – 365 andBO- 366)	Recognise and Predict of Secondary Metabolites in plant
		Demonstration and perform and handling of equipment used in genetic engineering
		Demonstration, estimate and measure to Fermentation technology
		Demonstration of Hybridisation Techniques
		Estimate test seed moisture, seed germination, seed diseases etc
		Describe and define terminology of nursery management and gardening
I	USB (BO3610) Nursery and gardening management	Discuss and classify structure and types of seeds
		Demonstration and explain different methods of propagation and gardening
		Distinguish techniques of management
		Judge and design of gardening
		Develop design of gardening, landscaping
П	USB (BO 3611) Biofertilizer	Define and describe the terminology of biofertilizer production
		Describe techniques of biofertilizer productions
		Demonstration and discuss biofertilizer production
		Classify and categorise various organism biofertilizer production
		Distinguish and estimate effect of biofertilizer on crop
		Design model of biofertilizer production



Arts, Science & Commerce College, Harsul

Tal. Tryambakeshwar, Dist. - Nashik

Department of Marathi

Course Outcomes M.A. - 1

Class - M.A. 1				
Semister- I				
Paper	Course title	Outcome		
CC-1	<u>II:II&qcl6R</u> <u>ctil I</u> 'Bl1T	 भाषिक जाणीव विकसित होईल. भाषेचे विविध व्यवहार व साहित्याच्या संर्भातील भाषाव्यवहार याविषयीच्या आकलन होईल. पदव्युत्तर पातळीवरील विद्यार्थ्यांच्या वाड्मयीन आणि जीवनविषयक जाणीव होईल. साहित्यकृतीच्या चिकित्सक विकसित होईल icl-icfl-i n+=rr.H<>TT'l<rt-:::n<=-:::a-,ct=t-1-16°11+ r="" रोजगार<br="">_ qai 3Tifo, silRIo i'tjl f.mrcftmfu</rt-:::n<=-:::a-,ct=t-1-16°11+> भाषेची सर्जनशील प्रक्रिया समजून घेतील 		
CC-2	<u>Blfu l'i:II</u> <u>\$@t51B</u> (.R <i>l l</i> .R o	कौशल्यात्मक उपयोजनासाठी विद्यार्थांची cfi(dHI'i:) विविध Iffici 11:!!WI:! cfi 1 If"IBId cfi(ffici. साहित्यकृतीच्या चिकित्सक अभ्यासाची प्रवृत्ती विकसित होईल i		

		भाषेचे <u>41c1.:mfta</u> कार्य व महत्व वेगवेगळ्या अभ्यासपद्धतींद्वारे . <u>4JIIc:1 "1</u> -
CC-3	ऐतिहासिक भाषाविज्ञान	भाषाविज्ञानातील प्रक्रिया समजावून घेतील ऐतिहासिक भाषाभ्यासपद्धती, मराठी भाषेचा उत्पत्ती काळ व टप्पा टप्प्याने भाषेच्या वाटचालीचा ऐतिहासिक मागोवा परिचय होईल.
		पद्धताच आकलन हाइल समाज भाषाविज्ञानातील विविध सिद्धांत संकल्पनांचा परिचय mfu.
		साहित्याचा सूक्ष्म पातळीवर अभ्यास करण्याची क्षमता विकसित mfu. mmuT साहित्याच्या परंपरेचे स्थूल ज्ञान मिळेल
CBOP	ग्रामाण साहित्य	वैचारिक जाणिवा प्रगल्भ होण्यास मदत होईल mmu साहित्याच्या परंपरेचे स्थूल ज्ञान होईल <u>4(1a1d1a</u> विविध साहित्य प्रवाहांचा परिचय

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Course Outcomes M.A. - 1

Class - M.A. 1				
	Semister -			
Paper	Course title	Outcome		
CC-5	भाषाव्यवहार आणि <u><-h'h1</u> 'q॥।-	भाषिक जाणीव विकसित होईल. भाषेचे विविध व्यवहार व साहित्याच्या संर्भातील भाषाव्यवहार याविषयीच्या आकलन करू शकतील पदव्युत्तर पातळीवरील विद्यार्थ्यांच्या वाड्मयीन आणि जीवनविषयक mfu. साहित्यकृतीच्या चिकित्सक विकसित होईल . <u>F:I+=fI-I विकत्सक विकसित होईल</u> 		
CC-6	-i:roiJ <u>антаны</u> <u>@sif!</u> (.в. '<, о -а. j, .В. оо)	साहित्यकृतीच्या चिकित्सक अभ्यासाची प्रवृत्ती विकसित होईल <u>"!{Icfailci -:.rt,= TTTt;"=".=:t+:::TT</u> <u>fl IIBc'I Wt-44l'i:O</u> f.li:nu <u>r lcf>dk1</u> 		

CC-7	समाज भाषाविज्ञान	भाषेचे <u>41c1.:mta</u> कार्य व महत्व वेगवेगळ्या अभ्यासपद्धतींद्वारे <u>4-J1lcl"1</u> qffi <u>भाषाविज्ञानातील प्रक्रिया समजावून घेईल</u> सामाजिक 'IRlit cfilo5 "cl" CU:rr	
		m <u>4-J110-1</u> समाज भाषाविज्ञानातील विविध सिद्धांत संकल्पनांचा परिचय होईल.	
СВОР	दलित साहित्य	साहित्याचा सूक्ष्म पातळीवर अभ्यास करण्याची क्षमता विकसित करेल. दलित साहित्याच्या परंपरेचे स्थूल ज्ञान मिळेल वैचारिक जाणिवा प्रगल्भ होण्यास मदत होईल दलित साहित्याच्या परंपरेचे स्थूल ज्ञान मिळते <u>4(laldla</u> विविध साहित्य प्रवाहांचा परिचय करून घेता येईल	

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Course Outcomes M.A. - 2

Class - M.A. 2			
	Semister -		
Paper	Course title	Outcome	
		भाषिक जाणीव विकसित होतील	
		प्रसारमाध्यमासाठी लेखन कौशल्ये आत्मसात करता	
CC-9	<u>SIfII(J.IIUIJ.IifIIo1</u> i <u>: 1</u> i :tI6!I	प्रसारमाध्यमांचे समाजातील महत्व विशद करू शकतील.	
00-9		<u>SIfI I(a IUI i-tia1</u> स्वरूपाचे ज्ञान व आकलन होईल	
		दृकश्राव्य माध्यमांसाठी लेखन करण्याची क्षमता विकसित होईल	
		IRRft साहित्यातील विविध प्रकार विद्यार्थी <u>3-11f"l fl ld cfi(ffic</u> i.	
		कौशल्यात्मक उपयोजनासाठी विद्यार्थ्यांची І <u>cf>(dHI 'c</u> l विविध	
	<u>fi 1f%</u> "BITTa.TT	<u>;IIffici "41 1f¾ 4cf> i:fil:t16!I 3-IkJ.IfIld cfi(ffici</u> .	
		। साहित्य व समीक्षा व्यवहाराच्या क्षमता विकसित होतील	
CC-10		समीक्षेची संकल्पना समजून घेता येईल	
		समीक्षा व्यवहारातील मुल्यमापनाचा परिचय	
		विविध समीक्षापद्धती त्यांचे विचारव्यह7ू"५t fl_li-lll<=_H	

CC-11		साहित्य व साहित्यिकांच्या जीवनप्रेरणा आणि जीवनदृष्टी समजावून घेता येतील
	<u>Jlcif:a</u> l <u>JiUI:alfl-</u> i " <u>B lffif<fpd'ftjl< u=""> 'q11T</fpd'ftjl<></u>	1 <u>-aui:ql fl-</u> i <u>i:hlci©:Sldh.1</u> <u>B'l-:illc:H</u> -
		साहित्यकृतीची वैशिष्ट्ये जाणून घेऊन आकलन होईल.
		साहित्यकृतीतील वाड्मयीनमूल्ये व जीवन मूल्ये जाणून घेता येतील
		कालखंड आणि साहित्यकृतीच्या निर्मितीचा अनुबंध शोधता येईल
		c:fTcf,,, <u>3-tlfcl lc:H</u> , , <u>cplTcfi{01</u> , मल्यनिर्णयन या प्रक्रियेतून <u>cll:S'l<1 3-tli:hci-i141</u> <u>clk}lld</u> -
CBOP	<u>lcf>Blf%f<1141 'Icid</u> 3IBUT1R@T <u>Ctli:hBIffif<1</u> 'qTIT -	साहित्याचा तौलनिक , I_id{4!'liBI , , <u>3-tia{fcl 1 11@<1</u> , <u>B'li:hlffi-i BIIBf<11iffi</u> । <u>Blffif<1I'RI1Blci</u> l <u>af{aofa</u> l \$. ""
		लोकसाहित्याच्या मुलतत्वाची ओळख व परिचय होईल <u>*,a1ffla</u> लोकसाहित्याच्या संकलन, संशोधन र्ज <u>'1 '114-i1B</u>
		-
		लोकसाहित्य संकल्पना समजावून घेता येईल

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Course Outcomes M.A. - 2

Class - M.A. 2			
	Semister - I V		
Paper	Course title	Outcome	
		भाषिक जाणीव विकसित होईल प्रसारमाध्यमासाठी लेखन कौशल्ये आत्मसात करता	
CC-13	<u>SIBI(J.IIUIJ.IiBlo1</u> <u>cfil I</u> m1T-	प्रसारमाध्यमांचे समाजातील महत्व विशद करता येईल <u>Slfl_uauUl<i>i-tia</i></u> स्वरूपाचे <u>3-llc-J.lflld</u> दूकश्राव्य माध्यमांसाठी लेख करण्याची क्षमता विकसित होईल	
		IRRft साहित्यातील विविध प्रकार विद्यार्थी आत्मसात करेल साहित्य व साहित्यिकांच्या जीवनप्रेरणा आणि जीवनदृष्टी समजावून घेता येईल.	
CC-14	साहित्य संशोधन	मध्ययुगीन कालखंडातील साहित्यप्रकाम <u>Bcfif9-i</u> l of समजावून घेता येईल. साहित्यकृतीची वैशिष्ट्ये जाणून घेतील. साहित्यकृतीतील वाड्मयीनमूल्ये व जीवन मूल्ये जाणून घेता येईल	
		<u>cfMF©:S</u> आणि साहित्यकृतीच्या निर्मितीचा अनुबंध शोधता येईल	

CC-15	नेमलेल्या मध्ययुगीन साहित्यकृतींचा अभ्यास भाग - २	साहित्य व साहित्यिकांच्या जीवनप्रेरणा आणि जीवनदृष्टी समजावून घेता येईल. <u>4t4<ptt-1 cfil<:.1©:slffi<:.1<="" u=""> साहित्यप्रकाग संकल्पना व स्वरूप <u>B4-:illcl-</u>i Qffi\$ साहित्यकृतीची वैशिष्ट्ये जाणून घेतील. साहित्यकृतीची वैशिष्ट्ये जाणून घेतील. <u>साहित्यकृती</u>ची वशिष्ट्ये जाणून घेतील. <u>दाति©:S</u> आणि साहित्यकृतीच्या निर्मितीचा अनुबंध शोधता येईल</ptt-1></u>
СВОР	लोकसाहित्याची मुलतत्त्वे आणि मराठी लोकसाहित्य भाग – 2	^{"cfTq} <u>3-tlfcl I -1</u> , विश्लेषण, वर्गीकरण, मूल्यनिर्णयन या प्रक्रियेतून वाड्मय आकलनाची क्षमता वृद्धिंगत होईल. साहित्याचा तौलनिक अभ्यास, भाषांतरमीमांसा, प्रभाव अभ्यास, आंतरविद्याशाखीय दृष्टी, परभाषेतील समकालीन साहित्यकृती यातून विद्यार्थ्यांच्या साहित्याभ्यासाला परिपूर्णता येईल लोकसाहित्याच्या मुलतत्वाची ओळख करून देतील. <u>4{laldlc:.1</u> लोकसाहित्याच्या संकलन, संशोधन of <u>4rll419HlB</u> - लोकसाहित्य <u>Bcfi0-Hl B4-:illcl-1</u> घेता येईल

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Program Outcomes, Program Specific Outcomes, & Course Outcomes

of B. Sc. Physics

Department of Physics

Physics department Programme Outcome, Program Specific Outcomes & Course Outcome

Programme Outcome

Name of the Programme: B. Sc. Physics			
PO Number	Programme Outcome	Skill	
At the end	of the programme, student will be able to		
PO-1	Gain a thorough knowledge and understanding of concepts and principles in all science subjects.Disciplinary knowledge		
PO-2	Communicate the subject knowledge in a clear and simple manner in writing and oral.	Communication skill	
PO-3	Identify the given problem and apply, theories/assumptions for solving the same, related to real life situations	Critical thinking & Problem solving	
PO-4	Plan, execute, interpret and report the results of the experiments to investigate.	Research related skill	
PO-5	Work effectively and respectfully as a team member in the classroom, laboratory and field- based situations.	Cooperation/Team work	
PO-6	Correlate the ideas, evidences and experiences to analyse and interpret the scientific information with learned scientific reasoning	Scientific reasoning	
PO-7	Get sensibly aware with the subject facts that can be applied for the society.	Reflective thinking	
PO-8	Apply modern library search tools to locate, retrieve, and evaluate subject-related information.	Information/Digitally literacy:	
PO-9	Identify the subject resources required for a project and manage different projects	Self-directed learning	
PO-10	Motivate and inspire other colleagues/students in subject related activities	Leadership readiness/qualities	
PO-11	Inculcate continuous learning habit through multiple techniques	Lifelong readiness/qualities	

Program Specific Outcomes (PSO)

PSO No.	Programme Specific Outcome	
At the end of the B. Sc. Physics programmed, student should be able to		
1	Transfer and apply the acquired fundamental knowledge of physics, understanding of basic concepts/ principles/theories of physics, to analyze and demonstrate variety of physical phenomena.	
2	Demonstrate the ability to translate a physical description to a mathematical equation, and also explain the physical meaning of the mathematics to represent key aspects of physics through graphs and diagrams, and use geometric arguments in problem-solving. Solve physics problems using the appropriate methods in mathematical, theoretical and computational physics, Communicate effectively using graphical techniques, reports and presentations within a scientific environment.	
3	Apply knowledge learned in classroom to set and perform simple laboratory experiments; demonstrate the learned laboratory skills, enabling them to take measurements in a physics laboratory and analyze the measurements to draw valid conclusions.	
4	Capable of oral and written scientific communication, and will prove that they can think critically and work independently.	
5	Plan, execute and report the results of a complex extended experiment or investigation, using appropriate methods to analyze data/observations.	
6	Work independently, acquire knowledge effectively by self-study, Capacity to work effectively in a team, Confidence in own capabilities, work comfortably with motivation/inspiration for learning and experimentation.	

Course Outcomes (CO)

Co	ourse Outcomes (O	CO) F. Y. B. Sc. Physics Semester-I
Paper	Course title	Course Outcome
Ι		CO1: Demonstrate an understand knowledge of Newton's Laws and the equations of motion
		CO2: Analyze Frames of reference (Inertial and Non inertial), Laws of motion and its real life applications

		CO3: Determine whether using conservation of energy or	
	PHY-111	conservation of momentum would be more appropriate for solving a	
	Mechanics and	dynamics problem	
	Properties of	CO4: Apply the knowledge and concepts of Work and Energy,	
	Matter	Surface tension, Stress and Strain, Poisson's ratio, Modulus of	
		rigidity and understand the conceptualize different laws of fluid	
		mechanics, related quantities like steady, turbulent flow, concept of	
		Reynolds number, Bernoulli's Principle	
		CO5: To Capable of oral and written communication about all the	
		topics covered in this Course.	
		CO6: To Work independently/in a team for problem solving skills in	
		all the topics covered in this Course.	
		CO1: To understand the general structure of atom. spectrum of	
		hydrogen atom.	
		CO2: To demonstrate the learned laboratory skills of LASER	
		principles.	
		CO3: To study describe classify and analyze the bonding	
	PHY-112 Physics	mechanism and their different types	
II	Principles and	CO4: To apply knowledge and perform simple laboratory	
	Applications	experiments to understand Electromagnetic waves and its spectrum	
		CO5: To Conchlo of oral and written communication about all the	
		topics covered in this Course	
		CO6: To work independently/in a team for problem solving skills in	
		all the topics covered in this Course.	
		CO1: Demonstrate an ability to collect data through observation.	
		CO2: Acquire work independently/in a team for technical and	
		manipulative skills in using laboratory equipment, tools and materials	
		CO3: Capable of Experimentation and interpreting data.	
	PHY-113 Physics Laboratory 1A	CO4: Demonstrate an understanding of laboratory procedures	
		including safety, and scientific methods.	
		CO5: Demonstrate a deeper understanding of abstract concepts and	
III		theories gained by experiencing and visualizing them as authentic	
		phenomena.	
		CO6: Acquire the complementary skills of collaborative learning and	
		teamwork in laboratory settings.	
	Course Outcomes (CO) F. Y. B. Sc. Physics Semester-II		
		CO1: Demonstrate and understand Fundamentals concept of	
		thermodynamics, laws of thermodynamics. Concept of heat &	
I	PHY-121 Heat and	temperature.	
	Thermodynamics	CO2: Analyze the thermodynamic processes Reversible and	
		Irreversible changes	

		CO3: Understand Temperature scales & inter-conversions,
		Categorize thermometers and state its applications
		CO4: Apply conceptually the second law thermodynamics.
		CO5: To Capable of oral and written communication about all the
		topics covered in this Course.
		CO6: To Work independently/in a team for problem solving skills in
		all the topics covered in this Course.
		CO1: To understand electric field, electric potential, magnetic
		intensity, magnetic induction, magnetic susceptibility and electric
		and magnetic flux.
		CO2: To demonstrate the learned laboratory skills of basic laws in
		Electricity and Magnetism.
		CO3: To calculate electrostatic field and potential of charge
	PHY-122	distributions using Coulomb's law and Gauss's law.
II	Electricity and	CO4: To Study and understand concept of the electric force, electric
	Magnetism	field and electric potential for stationary charges. Magnetic field for
		steady currents using Biot-Savart and Ampere's Circuital Laws, the
		dielectric phenomenon and effect of electric field on dielectric.
		COS: To Capable of oral and written communication about all the
		COG. To Work independently/in a team for quantitative mehlem
		solving skills in all the topics covered in this Course
		CO1: Demonstrate an ability to collect data through observation
		CO2: Acquire work independently/in a team for technical and
		co2. Require work independently/in a team for teermitear and
		manipulative skills in using laboratory equipment, tools and materials
		manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data.
		 manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures
Ш	PHY-123 Physics	 manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods.
ш	PHY-123 Physics Laboratory 1B	 manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO5: Demonstrate a deeper understanding of abstract concepts and
Ш	PHY-123 Physics Laboratory 1B	 manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO5: Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic
Ш	PHY-123 Physics Laboratory 1B	 manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO5: Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena.
Ш	PHY-123 Physics Laboratory 1B	 manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO5: Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena. CO6: Acquire the complementary skills of collaborative learning and
Ш	PHY-123 Physics Laboratory 1B	 manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO5: Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena. CO6: Acquire the complementary skills of collaborative learning and teamwork in laboratory settings.
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III Paper	PHY-123 Physics Laboratory 1B Course Outcome Course title PHY-231: Mathematical	manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO5: Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena. CO6: Acquire the complementary skills of collaborative learning and teamwork in laboratory settings. es (CO) S. Y. B. Sc. Physics Semester-III CO1: To understand the concept of partial differentiation. CO2: To discuss vector algebra useful in mathematics and physics. CO3: To study, describe and analyze the concept of singular points of differential equations.
III Paper	PHY-123 Physics Laboratory 1B Course Outcome Course title PHY-231: Mathematical Matheds in	manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO5: Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena. CO6: Acquire the complementary skills of collaborative learning and teamwork in laboratory settings. es (CO) S. Y. B. Sc. Physics Semester-III CO2: To understand the concept of partial differentiation. CO2: To discuss vector algebra useful in mathematics and physics. CO3: To study, describe and analyze the concept of singular points of differential equations. CO4: To apply knowledge and perform the role of partial differential
III Paper	PHY-123 Physics Laboratory 1B Course Outcome Course title PHY-231: Mathematical Methods in Physics_I	manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO5: Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena. CO6: Acquire the complementary skills of collaborative learning and teamwork in laboratory settings. es (CO) S. Y. B. Sc. Physics Semester-III CO2: To understand the concept of partial differentiation. CO2: To discuss vector algebra useful in mathematics and physics. CO3: To study, describe and analyze the concept of singular points of differential equations. CO4: To apply knowledge and perform the role of partial differential equations in physics.
III Paper I	PHY-123 Physics Laboratory 1B Course Outcome Course title PHY-231: Mathematical Methods in Physics-I	manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO5: Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena. CO6: Acquire the complementary skills of collaborative learning and teamwork in laboratory settings. es (CO) S. Y. B. Sc. Physics Semester-III CO1: To understand the concept of partial differentiation. CO2: To discuss vector algebra useful in mathematics and physics. CO3: To study, describe and analyze the concept of singular points of differential equations. CO4: To apply knowledge and perform the role of partial differential equations in physics. CO5: To Capable of oral and written communication about all the
III Paper	PHY-123 Physics Laboratory 1B Course Outcome Course title PHY-231: Mathematical Methods in Physics-I	manipulative skills in using laboratory equipment, tools and materials CO3: Capable of Experimentation and interpreting data. CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO5: Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena. CO6: Acquire the complementary skills of collaborative learning and teamwork in laboratory settings. es (CO) S. Y. B. Sc. Physics Semester-III CO1: To understand the concept of partial differentiation. CO2: To discuss vector algebra useful in mathematics and physics. CO3: To study, describe and analyze the concept of singular points of differential equations. CO4: To apply knowledge and perform the role of partial differential equations in physics. CO5: To Capable of oral and written communication about all the topics covered in this Course.

		all the topics covered in this Course.
		CO1: To apply different theorems and laws to electrical circuits.
		CO2: To understand the relations in electricity. Parameters,
		characteristics and working of transistors.
		CO3: To study and analyze parameters, characteristics and working
		of transistors.
Π	PHY-232 (A):	CO4: To describe the functions of operational amplifiers and perform
	Electronics	simple laboratory experiments to understand.
		CO5: To Capable of oral and written communication about
		transistors and applications of operational amplifiers.
		CO6: To Work independently/in a team for problem solving skills in
		Boolean algebra and logic circuits.
		CO1: To understand the concept of measurement.
		CO2: To demonstrate and design experiments using sensors.
		CO3: To study and analyze the performance of measuring
		instruments.
т	PHY-232 (B):	CO4: To apply knowledge of measuring instruments for laboratory
11	Instrumentation	experiments.
		CO5: To Capable of oral and written communication about all the
		topics covered in this Course.
		CO6: To Work independently/in a team for problem solving skills in
		all the topics covered in this Course.
		CO1: Demonstrate an ability to Use various instruments and
	PHY-233: Practical Course (Laboratory 2A)	equipment.
		CO2: Acquire work independently/in a team to Investigate the
		theoretical background of an Experiment, to plan, implement and
		report on a project/experiment.
		CO3: Analyze the data, plot appropriate graphs and reach conclusions
Ш		from data analysis.
		CO4: Demonstrate an understanding of laboratory procedures
		including safety, and scientific methods.
		CO5: Demonstrate a deeper understanding of abstract concepts and
		theories gained by experiencing and visualizing them as authentic
		phenomena.
		CO6: Acquire the skills to setup experimental equipment to
		implement an experimental approach.
	Course Outcome	es (CO) S. Y. B. Sc. Physics Semester-IV
		CO1: To understand the phenomenon of resonance, damped,
		undamped, forced oscillations and superposition of oscillations.
	PHY-241:	CO2: To demonstrate and explain oscillations in terms of energy
Ι	Oscillations,	exchange with various practical applications.
	Waves, and Sound	CO3: To study and analyze the underlying principles of oscillations
	waves, and bound	and its scope in development.
		CO4: To apply knowledge and perform simple laboratory
		experiments to understand characteristics of sound, decibel scales and

			applications.
			CO5: To Capable of oral and written communication about all the
			topics covered in this Course.
			CO6: To Work independently/in a team for solving the equations /
			graphical representations of motion for simple harmonic, damped,
			forced oscillators and waves.
	П	PHY-242: Optics	CO1: To understand the optical phenomenon such polarization,
			diffraction and interference in terms of the wave model.
			CO2: To demonstrate the learned laboratory skills about a light beam
			spread out after passing through an aperture.
			CO3: To study, describe and analyze the simple example of
			interference and diffraction.
			CO4: To apply knowledge of basic concept of wave optics and
			describe how light can constructively and destructively interfere.
			CO5: To Capable of oral and written communication about operation
			of many modern optical devices that utilize wave optics.
			CO6: To Work independently/in a team for problem solving skills in
			all the topics covered in this Course.
F	Ш	PHY-243: Practical Course (Laboratory 2B)	CO1: Demonstrate an ability to Use various instruments and
			equipment.
			CO2: Acquire work independently/in a team to Investigate the
			theoretical background of an Experiment, to plan, implement and
			report on a project/experiment.
			CO3: Analyze the data, plot appropriate graphs and reach conclusions
			from data analysis.
			CO4: Demonstrate an understanding of laboratory procedures
			including safety, and scientific methods.
			CO5: Demonstrate a deeper understanding of abstract concepts and
			theories gained by experiencing and visualizing them as authentic
			phenomena.
			CO6: Acquire the skills to setup experimental equipment to
			implement an experimental approach

Head Dept. Of Physics