



Kisan Shikshan Prasarak Mandal's

SHIVAJI MAHAVIDYALAYA, UDGIR

Dist: Latur 413517 (Maharashtra State)

NAAC Reaccredited "B" Grade (2.78 CGPA), Covered under UGC 2(f) & 12B Statu

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(M.Sc. Ph. D.)
PRINCIPAL

PROGRAM SPECIFIC OUTCOMES FOR ALL PROGRAMMES

BACHELOR AF ARTS

PSO's English

1. Through responding to and composing a wide range of texts, the learners will begin to use the English language in the best possible manner.
2. Through the close study of texts, students will develop knowledge, understanding and skills in order to communicate effectively in English.
3. Learners will value and appreciate the importance of the English language as a key to learning.
4. Learners will gain the personal enrichment from study of literary pieces in English.
5. Learners will acquire ability to communicate through oral and written texts..
6. The learners will be able to use the English language in a refined way for the personal and social purposes.
7. The students will attain a higher level of understanding and skills in order to carry out Communicative activities.
8. Learners will be able to make practical use of the mechanics of the English language.
9. Learners will be acquiring the skill of using English for media and electronic communication.
10. The ability to communicate and interpret written texts shall be augmented.
11. Learners will be able to understand the historical background of the canon of Western Literary Criticism.
12. Learners will appreciate the various theories developed during the Classical times and European Renaissance.
13. Learners will be sensitized to the foundations of different critical traditions.
14. To provide in depth knowledge of language and literary concepts.
15. To familiarize with contemporary and recent trends and advances in language and literature.

16. To improve language competence.
17. To introduce students to some advanced areas of language study.
18. To prepare students to go for detailed study and understanding of literature and language.

PSO's Hindi

उद्देश्य एवं महत्व :

- i) हिंदी साहित्य के बृहत इतिहास का परिचय कराना।
 - ii) हिंदी साहित्य के सृजन की पृष्ठभूमि को समझना।
 - iii) साहित्यिक प्रवृत्तियों की परम्परा को समझना।
 - iv) साहित्य के माध्यम से जीवनमूल्यों एवं जीवन दर्शन को समझना।
 - v) भाषाई शिल्प के परिवर्तनों को समझना।
 - vi) हिंदी साहित्य के आदिकाल तथा रीतिकाल का संक्षिप्त परिचय देना।
 - vii) भक्तिकाल तथा आधुनिक काल की प्रवृत्तियों से छात्रों को अवगत कराना।
1. Introducing autobiography and long poem to students.
 2. To make students aware of the method of official letter writing.
 3. Introducing students to journalism.
 4. To develop the art of translation from English to Hindi in students.
 5. To make students familiar with the Hindi used in the government office through the terms defined.
 6. Creating an interest in literature.
 7. Imbuing the literary research attitude.

PSO's Marathi

उपयोगिता

- कथा वाढण्याच्या विविध प्रकारांची ओळख.
विद्यार्थ्यांची कथात्मक दृष्टी विकसित करणे.
साहित्य भीरुचीचा आकलन कक्षा रुंदावणे.
भाषिक आणि वाङ्मयीन सौंदर्यदृष्टीचा विकास हे.
मराठीच्या विविध बोलींचा परिचय.

1. To create interest in students about Marathi language.
2. Explain the importance of language in personality development.
3. Creating an interest in literature.
4. Learn how to use Marathi language in administrative practice.
5. Review of science literature.
6. Explain the nature of essay writing.

PSO's Sanskrit

1. To provide in depth knowledge of socio-economic aspects.
2. To familiarize with current and recent developments in Economics.
3. To enrich knowledge through problem solving, hands-on activities projects.
4. To provide a broad and comprehensive knowledge in micro and macro Economics, Public Economics, Indian Economy and Agricultural Economics.
5. To develop analytical abilities towards real world problems .

PSO's Urdu

1. A knowledge of this language will indeed help you to find jobs and to expand social works.
2. To improve the knowledge about the Urdu language and its origin.
3. To improve and understanding the knowledge about social, cultural and historical background of Urdu language and literature.
4. To improve the knowledge and understanding about the Urdu literature and its Specialty. To improve the knowledge of various genera of literature.
5. To improve the knowledge about scope and future of Urdu.

PSO's Economics

PSO1

1. Meaning, nature and scope will be studied in this course.
2. Student's ability will be utilized to tackle the current economic problems.
3. Students will adept more knowledge in the field of modern economics by studying this course.
4. This course will increase the utility and application to acquire more satisfaction in life.

PSO2

1. This course aims to develop the broad conceptual frameworks, which will enable students to understand and comment upon real economic issues like inflation, money supply, GDP and their interlinkages
2. To provide in depth knowledge of socio-economic aspects.
3. To familiarize with current and recent developments in Economics.
4. To enrich knowledge through problem solving, hands-on activities projects

PSO3

1. Pupils will understand the basic economic concepts by studying the course.
2. Students will be able to solve the economic problems by studying this course.
3. Students will acquire the judgment power by studying the comparative approach.
4. Understanding how different degrees of competition in a market affect pricing and output.
5. Understanding the efficiency and equity implications of market interference, including Government policy.
6. To provide a broad and comprehensive knowledge in micro and macro Economics, Public Economics, Indian Economy and Agricultural Economics.
7. To develop analytical abilities towards real world problems.
8. Developing research knowledge in economics.

PSO's Geography

PSO1

1. To help students to know the different races of the world and respect them for peaceful coexistence.
2. To develop abilities among the students to interpret the toposheets, calculate time using longitudes.
3. To learn the techniques of showing the relief and landforms.
4. To help students to know the evolutionary process of various features of landforms.
5. After completion of program, students will be able to have in-depth knowledge of basic concepts in Geomorphology.

PSO2

1. To help students to know the agriculture, farming, production of crops, various resources, industries, transportation and trade which govern economic development.

2. To understand the geopolitics, its significance, and international relations.
3. To develop skills among the students to analyze climatic variations through the study of Weather Instrument and Indian Daily Weather Reports
4. To help students to learn the skills of arrangement and organization of tours.
5. Students will be able to get acquainted with latest concepts in Geomorphology.
6. Students will get Acquaint with utility and applicaton of geomorphology in different regions and environment.

PSO3

1. To help students to know the social and cultural fabrics.
2. To work for social justice and fair society.
3. To appreciate the regional diversity and to develop acclimatizing temperament among the students.
4. To know the use of particular projection for making particular map.
5. Students will be aware of the need of protection and conservation of different land forms.

PSO's History

PSO1

1. This paper will helps students to know the archaeological and literary sources.
2. The Students will know about the great kings in Ancient India.
3. The Students will study the different religions.
4. The students will study the process of decline of the great Dynasties.

PSO2

1. It will help the students to understand the most important and inspiring history of Medieval Maharashtra.
2. It will help the students to understand the political and administration of this period.
3. It will aware the students about various policies regarding Agriculture, Water management, Environment and Scientific approach of Chhatrpati Shivaji Maharaj.
4. The students will study the process of Mughal kings and British Governors.
5. Students were able to explain and critique the historical schools of thought that have Shaped.
6. Scholarly understand of their fields of study.

PSO3

1. To enhance the national interest among the students.
2. To support the spirit of competency.
3. To inculcate the National and International virtues in the minds of students.
4. To enlighten the spirit of fellow feeling.
5. To elaborate the Modern Indian History in various contexts.
6. Students were able to demonstrate broad knowledge of historical events and periods and their significance.
7. Reviewing the state of the field to identify a new topic and locate their work within larger scholarly conversations.
8. Many students got greate success in teaching and public sector fields.

PSO's Library & Information Science

1. To familiarize the students with various techniques of Information Storage & Retrieval.
2. To provide knowledge about various indexing systems and services and to introduce National and International Information Systems and Centers.
3. To understand the theory and principles of classification and to get familiar with select schemes of classification.
4. To introduce various concepts, theories and principles in cataloguing & document description and to impart knowledge about various standards in document description and bibliographic exchange.

PSO's Political Science

PSO1

1. Pupils will understand the basic Political concepts by standing the course.
2. Students will be able to solve the Political problems by standing this course.
3. Students will acquire the judgment power by standing the various Political
4. ideas, concepts and other Political issues concern with Politics.
5. It emphasizes on local influences that derive from social stratification of castes and Jatis,
6. from language, religion, ethic and economic determinants and critically assesses its impact on the political processes.
7. The purpose of this course is to explain the non -institutional political processes and
8. There by to sensitize the students on informal processes of politics.

PSO2

1. To Prepare students for competitive exams like UPSC, MPSC and other Exams.
2. To expose the students with basic concepts and political institutions like Parliament, Supreme Court, Political Parties Constitution and Democracy etc.
3. To introduce the students with the administrative and Political setup and Mechanism with roll and functions.
4. To develop sensitive citizenship among the students.

PSO3

1. This course will encourage students to understand and decipher the diverse and often contesting ways in which the ideas of nationalism, democracy and social transformation were discussed in Pre and Post-independence India.
2. It focuses in detail on the political processes and the actual functioning of the political system.
3. It simultaneously studies in detail the political structure both Constitutional & administrative.
4. To provide a deeper understanding of the concepts and approaches related to political sociology.
5. To explain the social context of politics to the students.

PSO's Sociology

PSO1

1. Student will be able to demonstrate on understanding of how social call affects
2. individual life. To understand society in context of the sociology theory: knowledge
3. concepts.
4. Students will obtain a sociological understanding of diverse: social groups: organization and social institutions. Social institutions are usually conceived of as the basic focuses of social organization: common to all societies.
5. To get an idea regarding development of the subject.
6. A good academic background to be able to seek admission for masters degree in geography.
7. Capability of applying the knowledge in solving the real world problems.
8. Skill in cartography for data representation.

PSO2

1. Sociologist are typically motivated the desire to better understand the principle of social life and by the conviction that understanding these principles may aid in the formulation of enlightened and effective social policy. India is a land of divers religions.

Social Structure of India underwent some changes. The Indian society in the recent past, particularly since the Independence. There are two main forms of social

2. Stratification caste and class both are the agencies of social mobility and selection.
3. Position that man occupies in society Democracy is very much linked with modernization. Secularism and
4. National integration are soul of India. This course gives insights about social change in India.
5. To know the origin of the earth, universe and solar system etc.
6. To know the demographic data.
7. To know the different settlement pattern, types, characteristics etc.

PSO3

1. Sociology is branch of social sciences that uses systematic methods.
 2. This course is to provide to the sociology students with the understanding of sociological theory.
 3. To train students for the application of these theories to social situations, acquaintance with the writing of these four thinkers, so as to equip the students with theoretical insights to know analysis and interpret the social scenario around them. An attempt to familiarize students with the different sociological perspectives and theories.
 4. To know the different GIS Software, computer knowledge etc.
 5. To briefly analyze bivariate and categorical data.
 6. Ability to follow new stream of thoughts and theories of social thinkers.
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PROGRAMME SPECIFIC OUTCOMES COMMERCE

(B.COM.)

PSO1

1. Accounting Knowledge.
2. Application of Accounting in Business.
3. Students will be acquainted with the business economic principles and theories as are applicable in business. Students can understand the basic concept of statistics and its application in business and data analysis.
4. After completion of the program, students will be able to have in-depth knowledge of basic concepts in computer fundamental Technologies.
5. Students will be able to apply the knowledge in real-life situations to solve the problems.
6. Students will get employment opportunities to the rural area.

PSO2

1. The course is beneficial to understand the provision of company act 1956 regarding the preparation of accounts.
2. It is beneficial for students to move in to advance areas i.e. C.A, I.C.W.A, CS etc
3. It could help graduates to work as financial analyst, HRM officers.
4. It provides the knowledge of differentiating the profit Prior and post Incoorporation.
5. It provides the basic concept of knowledge of buyback, forfeatures of shares.
6. Students develop aptitude of doing self-employment through undertaking small projects and become responsible and self-confident.
7. Students got a professional learning experience through vigorous work that is deliberated with the application of daily life phenomenon.
8. Student employability skills with a graduate's academic knowledge.

PSO3

1. Student can acquire knowledge of advance level of accounting for professional.
2. Students can take managerial decisions regarding finance of the business.
3. Regarding minute study to find out the fraud and errors in accounting.
4. To get oneself acquaint with the direct taxes and individual income.
5. Students are aware about the safety practices and regulations inside the industry.

6. Student works with a spirit of teamwork and maintain good relationship with employer.
7. Acquaint the students with the fundamentals of Banking & Finance.
8. Students will develop the new capabilities and skills of students in the concept and operations of Banking & Finance.
9. Students will confident to start self-employment.

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PROGRAMME SPECIFIC OUTCOMES BACHELOR OF SCIENCE (B.Sc.)

PSO's Botany

PSO1

1. This program will train and orient the students in the field of diversity of different life forms of plants and microbes, Plant Ecology, Taxonomy of Angiosperms, Plant Anatomy, Plant Embryology, Plant Physiology, Plant Metabolism and Biochemistry, Cell Biology, Genetics & Molecular Biology, Plant Pathology, Analytical Techniques in Plant Sciences, Herbal Drug Technology, Plant Breeding & Biotechnology, Plant Systematics, Research Methodology and Bioinformatics in relation to Environment and Agriculture as well as Biotechnological, Pharmaceutical and Herbal Industries.
2. This will help the students for their career development. Skill Enhancement Courses being offered during this program will provide job opportunities and additional specific skills to the students for self employability through the development of their own enterprises.
3. To provide thorough knowledge about various primitive to highly evolved plant groups.
4. To make the students aware of applications of different plants in various industries.
5. To highlight the potential of these studies to become an entrepreneur.
6. To get acquainted with the subject in live form and visits to industries. To make the students aware about conservation and sustainable use of plants.
7. To provide thorough knowledge about various highly evolved plant groups and their community structure.

PSO2

1. This program will train and orient the students in the field of diversity of different life forms, Plant Anatomy, Plant Embryology, Plant Physiology, Plant Metabolism and Biochemistry.
2. This program will help the students for their career development.
3. This program will provide updated curriculum with recent advances in the subject and enable the students to face NET, SET, UPSC and other competitive examinations successfully.
4. This program shall train and orient the students for laboratory skills and serve as human resource for the educational institutes, industries and other organizations.
5. The programme also has a strong interdisciplinary component. Emphasis is given on the experimental learning through hands-on laboratory exercises, field trips and assignments.

6. To study the different metabolic process for synthesis of food material.
7. Internal structure will be observed for further studies as well as to study the developmental pattern of plant.
8. To study the techniques of multiplication and nanotechniques.

PSO3

1. This program will train and orient the students in the field of cell biology, molecular biology, genetics, plant breeding, plant pathology, systematic botany and herbal technology.
2. This program will help the students for their career development.
3. This program will provide updated curriculum with recent advances in the subject and
4. enable the students to face the competitive examinations successfully.
5. This program shall train and orient the students for laboratory skills and serve as
6. human resource for the educational institutes, industries and other organizations.
7. The programme also has a strong interdisciplinary component. Emphasis is given on
8. the experimental learning through hands-on laboratory exercises, field trips and assignments.
9. Students will be able to understand and explain different specializations in Botany
10. To equip the students with skills related to laboratory as well as field based studies.
11. Interpret the performance characteristics & life cycles of various lower plants.
12. To develop the mind from the cellular to molecular level. Analyze the evolution with genetical characteristics for future aspects.

PSO's Microbiology

PSO1

1. The syllabus of B. Sc. microbiology course will orient and train the students in view of general microbiology, medical microbiology and laboratory technology, microbial genetics and molecular biology, occurrence of metabolic events and its relation to environment and agriculture, Industrial and Pharmaceutical Microbiology to understand and apply this knowledge for carrier orientation.
2. SE Course will provide additional opportunity for a student to develop skills of interest in this field of study.
3. The practical at third year will be planed more intensively, with exposure to applied fields.

4. The practical at third year will be planned more intensively, with exposure to applied fields.

PSO2

1. The syllabus of B. Sc. microbiology course will orient and train the students in view of general microbiology, medical microbiology and laboratory technology, microbial genetics and molecular biology, occurrence of metabolic events and its relation to environment and agriculture, Industrial and Pharmaceutical Microbiology to understand and apply this knowledge for career orientation.
2. SE Course will provide additional opportunity for a student to develop skills of interest in this field of study.

PSO3

1. Industrial application of enzymes and their function for upbringing of society. Knowledge of different aspects of Microbiology has become crucial and indispensable to everyone in the society.
2. Study of microbes has become an integral part of education and human progress. Development of basic techniques in fermentation.
3. For sustainable development with the use of microbes this course has been included.
4. The practical at third year will be planned more intensively, with exposure to applied fields.

PSO's CHEMISTRY

PSO1

1. Student should learn basic concept of organic chemistry, Nomenclature.
2. Student get well acquainted with functional group in organic chemistry.
3. To understand the basic concepts and differences aliphatic hydrocarbons.
4. To know about term cycloalkane, cycloalkene and diene.
5. Learn and practice about organic compounds with their names.
6. Students learn some exceptional electronic configuration, trends and Periodicity in the following properties like atomic size, ionization energy, electron affinity & electronegativity.
7. Learning and understanding rules of logarithm, Rules of drawing graph,
8. Derivatives, Integration, different mathematical concept and SI units, and their use in solving numerical. Learning surface phenomena at heterogeneous surfaces.
9. This involves preparations of organic compounds through single, double and multistep synthesis.

10. They get training to set up new reactions, follow-up of progress of reaction by techniques like TLC, MP/BP and workup of reactions to purify desired products.
11. Students are expected to carryout basic experiments related to biochemistry like isolation, separation and purification of drug targets like proteins or enzymes.

PSO2

1. Learn the mechanism of name reactions.
2. Know the Synthesis, and Reactions of Aromatic Carboxylic and Sulphonic acids.
3. Know the Synthesis, and Reactions of Organometallic compounds.
4. Learn the synthesis, mechanism, applications of active methylene compounds.
5. Gathering basic knowledge of Oils, Fats, Soaps and Detergents.
6. Understand the basic principle and application of Qualitative Analysis.
7. Know the Classification, Properties of Non- aqueous solvents.
8. Write an expression of Davisson-Germer experiment.
9. Derive Schrodinger wave equation.
10. Understand De-Broglie's hypothesis and uncertainty principle.
11. Solve the numerical problems based on De-Broglie.
12. Understand concept of entropy

PSO3

1. After completion of this course, student will be able to Organic reaction and mechanism pathways. Nomenclature of various heterocycles recognize and comment on different synthetic drugs and dyes.
2. Able to discuss the uses and synthesis of some vitamins and pesticides.
3. Understand the concepts of molecular Spectroscopy and its applications.
4. Know the theory and application of Distribution law.
5. Illustrate the classification and application of Metal Carbonyls.
6. Understand the basic principle and application of coordination complexes.
7. Students are able to understand principles of various instruments.
8. Students can prepare various solutions and can perform the dilutions appropriately.
9. Students can handle various instruments.
10. Students are able to prepare graphical result sheets of experiment.
11. The Practical course provides opportunity to students to learn about the various organic transformations in laboratory.

PSO's BCA

PSO1

1. Apply knowledge of mathematics, science and algorithm in solving Computer problems and applied use of banks.
2. Learn various custom software.
3. Design component, or processes to meet the needs within realistic constraints.
4. Identify, formulate, and solve problems using computational temperaments.
5. Comprehend professional and ethical responsibility in computing profession.
6. Express effective communication skills.
7. Recognize the need for interdisciplinary, and an ability to engage in life-long learning.
8. Actual hands on technology to understand it's working.
9. Knowledge of contemporary issues and emerging developments in computing profession.

PSO2

1. Apply knowledge of mathematics, science and algorithm in solving Computer problems and applied use of banks.
2. Learn various custom software
3. Design component, or processes to meet the needs within realistic constraints.
4. Identify, formulate, and solve problems using computational temperaments.
5. Comprehend professional and ethical responsibility in computing profession.
6. Express effective communication skills.
7. Recognize the need for interdisciplinary, and an ability to engage in life-long learning.
8. Actual hands on technology to understand it's working.
9. Knowledge of contemporary issues and emerging developments in computing profession
10. Apply knowledge of mathematics, science and algorithm in solving Computer problems and applied use of banks.
11. Learn various custom software.
12. Design component, or processes to meet the needs within realistic constraints.

PSO3

1. Upon successful completion of this course, you will be able to gather data to analyze and specify the requirements of a system. Design system components and environments & build general and detailed models that assist programmers in implementing a system. It also design a database for storing data, a user interface for data input and output, and controls to protect the system and its data
2. Identify, formulate, and solve problems using computational temperaments.
3. Comprehend professional and ethical responsibility in computing profession.

4. Express effective communication skills.
5. Recognize the need for interdisciplinary, and an ability to engage in life-long learning.
6. Actual hands on technology to understand it's working.
7. Knowledge of contemporary issues and emerging developments in computing profession.

PSO's Computer Science

PSO1

1. Apply knowledge of mathematics, science and algorithm in solving Computer problems.
2. Generate solutions by conducting experiments and applying techniques to analyze and interpret data
3. Design component, or processes to meet the needs within realistic constraints.
4. Identify, formulate, and solve problems using computational temperaments.
5. Comprehend professional and ethical responsibility in computing profession.
6. Express effective communication skills.
7. Recognize the need for interdisciplinary, and an ability to engage in life-long learning.
8. Actual hands on technology to understand it's working.
9. Knowledge of contemporary issues and emerging developments in computing profession.

PSO2

1. To learn the Fundamentally concept of Digital Image Processing.
2. To study the basic image processing Operation.
3. To Understand Image Analysis Algorithm.
4. To Expose the Students to current applications in the field of the digital image processing.
5. To understand the functions of Operating system.
6. Provide insight into functional model of operating system.

PSO3

1. Review the fundamental concepts of Windows Programming in C#.Net
2. Evaluate the logic of different programming concepts.
3. Evaluate the techniques of application development in windows environment.
4. To develop database connectivity application.
5. To evaluate different techniques to develop windows applications.
6. Design & implementation of operating system Science.

PSO's Dairy Science

PSO1

1. Skill oriented course which is beneficial to the students to become self entrepreneur.
2. Skill oriented course which is beneficial to the students to become self entrepreneur.
3. Students taken intrest in Research which is beneficial for to start own Business.
4. Skill oriented course which is beneficial to the students to become self entrepreneur.
5. Students taken interest in Research which is beneficial for to start own Business

PSO2

1. After completing, one can work as a supervisor in a dairy plant either in equipment and plant design or project execution.
2. He or She can also be a dairy consultant or take up entrepreneurial ventures in milk plants or ice cream, cheese, butter units. One can work as Dairy Farm manager.

PSO3

1. This course development personnel interest in skills.
2. To get Proper training for local employees.
3. The Students to become Self entrepreneur.
4. This course development personnel interest in skills.
5. To get Proper training for local employees (Students).
6. Skill oriented course which is beneficial to the students to become self entrepreneur.

PSO's Mathematics

PSO1

1. Understanding concept of Limit, Continuity of Single and two variable Functions.
2. Find the Higher order derivatives of Product of Functions
3. Expand functions in terms of infinite series.
4. Find Equation of Tangent, Normal and Length of Tangent, Normal, Sub-tangent,Sub-normal.
5. Understanding of Mean Value Theorem concepts.
6. Understand the concept of Partial differentiation.
7. On completion of this unit successful students will be able to understand the significance of differentiability for complex functions and be familiar with the Cauchy-Riemann equations.
8. Evaluate integrals along a path in the complex plane and understand the statement of Cauchy's Theorem.

PSO2

1. Understanding the basic concept of sets and their properties.
2. Understanding the concept of a neighborhood of a point, interior points of a set, open set.
3. Understanding concept of limit points of a set, closed set, closure of a set, dense set.
4. Understanding the basic concept of sequences, subsequences, bounds of sequences,
5. limit point of sequences, general principle of convergence, different types of sequences.
6. Understanding the concept of infinite series, different types of series, the general principle of convergence.
7. Compute the Taylor and Laurent expansions of simple functions, determining the nature of the singularities and calculating residues.
8. Use the Cauchy Residue Theorem to evaluate integrals and sum series.
9. Understand terms, definitions and theorems related to topology.

PSO3

1. Demonstrate an understanding of metric spaces and subspaces by proving unseen results.
2. Produce examples and counterexamples illustrating the mathematical concepts.
3. Understand the concepts of open and closed sets
4. Understand the concepts and develop skill to check the positions of a point in the space.
5. Understand the concepts of convergences and completeness.
6. Demonstrate knowledge and understanding of concepts such as connectedness and compactness.
7. Apply theoretical concepts in topology to understand real world applications. The aim of the course is to provide for the students an introduction to theory of metric and topological spaces with emphasis on those topics that are important to higher mathematics.
8. Focused on the basic notions of metric and topological spaces, properties of continuous mappings selected types of topological spaces (compact and connected spaces) and basic theorems on topological spaces.

PSO's Physics & Electronics

PSO1

1. able to identify variety of electronic components viz. resistors, inductors capacitors and their types & uses.
2. Able to understand I-V characteristics of basic electronic components.
3. Able to apply network theorems to simplify given network.
4. Able to distinguish between DC/AC sources, relate various characteristics of sinusoidal voltage and understand use of resonant circuits.

5. After completing this practical course students will be able to Use various instruments and equipment.
6. Design experiments to test a hypothesis and/or determine the value of an unknown quantity.
7. Investigate the theoretical background to an experiment.
8. Set up experimental equipment to implement an experimental approach.

PSO2

1. Knowledge of transistor biasing.
2. Analysis of small signal amplifier using h-parameters and designing of CE amplifier.
3. Concept of an ideal amplifier, knowledge of IC 741 and its applications.
4. Analyze data, plot appropriate graphs and reach conclusions from your data analysis
5. Work in a group to plan, implement and report on a project/experiment.
6. Keep a well-maintained and instructive laboratory logbook.
7. The student should be familiar with certain Nano electronic systems and building blocks such as: low-dimensional semiconductors, heterostructure, carbon nanotubes, quantum dots, nanowires etc.

PSO3

1. Understanding of communication systems.
2. Working of analogue modulation techniques.
3. Understanding of analogue pulse modulation.
4. Understanding of digital pulse modulation.
5. The student should be able to set up and solve the Schrödinger equation for different types of potentials in one dimension as well as in 2 or 3 dimensions for specific cases.
6. The student should be able to use matrix methods for solving transport problems such as tunneling, resonant tunneling and know the concept of quantized conductance.
7. The student should be experimentally familiarized with AFM and PL methods and know their approximate performance as well as applications.
8. Through the mini-project, students should get familiarized with searching for scientific information in their subject area, practice report writing and presenting their project in a seminar.
9. Finally, a goal is to familiarize students with the present research front in Nanoelectronics and to be able to critically assess future trends.

PSO's Zoology

PSO1

1. Study of the fields of Biodiversity of Invertebrates & Chordates and Comparative Anatomy of Vertebrates & Developmental Biology of Vertebrates equips students to pursue further study in a wide variety of subjects.
2. It also prepares the students for future research in any of the related fields. Such a broad coverage of topics in the first year of the course also helps in widening their perspective of biological sciences.
3. The course contents offered are related to Animal Morphology, Taxonomy, Anatomy and Development.
4. These courses would induce understanding of the subject so that the student could later take up specialized post-graduate courses and also pursue research in the relevant field.
5. The students could also explore possibilities in developing themselves in such specialized fields to fit in the competitive environment.

PSO2

1. Learning of such areas of zoology as Physiology, Biochemistry, Cytology, Genetics, Evolution & Genetic Engineering equips students with necessary skills to pursue further study in a wide range of subjects. It also prepares the students for future research in any of the related fields.
2. Such a broad coverage of topics in the second year also helps them widen their perspective of biological sciences.
3. These courses would induce understanding of the subject so that the student could later take up specialized post-graduate courses and also pursue research in the relevant field.
4. The students could also explore possibilities in developing themselves in such specialized fields to fit in the competitive environment.
5. We get to learn about the various skills that are necessary for self employment in the mulberry and seed production.
6. Course gives us employment and job opportunities in the public, private and government sector.

PSO3

1. Study of the subjects of Ecology & Zoogeography and Ethology in conjunction with Biometry and Bioinformatics equips the student to take up further study in a wide variety of subjects. It also

prepares the student for future research in any of the above or related fields. Such a broad coverage of topics in the final year of the course also helps in widening their perspective of biological sciences.

2. The elective courses offered are related to Fishery Science, Applied Parasitology, Entomology and
 3. Environmental Biology. These courses would crystallize the understanding of the specific subjects so that the student could take up specialized post-graduate courses and also pursue research in therelevant field.
 4. The students could also explore possibilities in developing themselves in such specialized fields like Fish farming, Fishery management, Parasite control, Parasite related health services, Pest control and management, industries like Sericulture & Apiculture, Environmental Consultancy and Environmental Management services.
 5. Knowledge about the cultivation of mulberry, maintenance of the farm, seed technology, silkworm rearing and silk reeling.
 6. Knowledge about the cultivation of mulberry, maintenance of the farm, seed technology, silkworm rearing and silk reeling.
 7. Course gives us employment and job opportunities in the public, private and government sector.
 8. We get to learn about the various skills that are necessary for self-employment in the mulberry and seed production.
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Kisan Shikshan Prasarak Mandal's

SHIVAJI MAHAVIDYALAYA, UDGIR

Dist: Latur 413517 (Maharashtra State)

NAAC Reaccredited "B" Grade (2.78 CGPA), Covered under UGC 2(f) & 12B Statu

Affiliated to : Swami Ramanand Teerth Marathwada University, Nanded

Sr. College Code No. 309 Jr. College Index No. 62.10.002

Dr. V. A. Jadhav
(M.Sc. Ph. D.)
PRINCIPAL

Phone: 02385-256116, 252991

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PROGRAMME SPECIFIC OUTCOMES MASTER OF ARTS (M.A.)

PSO's M.A. Marathi

PSO1

१. मराठी पदव्यत्तुर अभ्यासक्रम पूणथ करताना प्रगल्ि व्यविमत्त्व वनमाथण िोण्यासाठी मदत..
२. स्पधाथपरीक्ांच्या तयारीसाठी मराठी वाङ्मयाचा अभ्यास उपयुि आ.े
३. स्वातंत्र्यपवूकथ ालीन सांस्कृतक, वाङ्मयीन व ऐवतिवसक पार्श्विमीचेआकलन.
४. आधवुनक काळातील मराठी वाङ्मयीन वारसा जतन करण.े
५. मराठी लेखनातील ठळक प्रवृत्ी, ग्रंकारि आवण सावित्यकृती या अनरूगं ानेसावित्याचा अभ्यास करण.े

PSO2

सावित्याचे स्वरूप, प्रयोजने आवि वनवमथती प्रवक्रया, प्रयोजनेआवि वनवमथती प्रवक्रया यांचा अनुबंध लक्षात येईल सावित्याची भाषा आवि आस्वाद प्रवक्रया समजनु घेता येईल. सावित्य आवि समाज अनुबंध उलगडता येईल सावित्याचे आकलन, मलूयमापन आवि ववश्लेषि करण्याची समीक्षादृष्टी वनमाथि िोईल.

1. To prepare for the examinations like SLET.
2. To understand the communication process and method.
3. To increase vision regarding literary value.
4. To know the importance of language in human life
5. To understand history of Literature.

PSO's M.A. Economics

PSO1

1. The paper is useful for the students to understand consumer's behaviour, production and cost, price determination, distribution and welfare. It is also helpful to understand all the branches of economics.

2. The course is useful for the students to understand the functional relationship between the large aggregates. The course equips the students at the postgraduate level to understand systemic facts and latest theoretical developments for empirical analysis.
3. The course is useful for the students to understand the functional relationship between the domestic markets with the world market. The course equips the students at the postgraduate level for the globalised world.
4. Use and explain the terminology, methods, techniques and conventions used in the study of banking and financial market;
5. Identify and explain the main functions of the banking and non-banking financial institutions; Critically assess the impact of monetary policy on various aspects of economy; Possess a solid grasp of the working of various financial institutions and markets required for the further studies in economics.

PSO2

1. At the end of the course, a student should be able to understand the development paradigm adopted in India since independence and evaluate its impact on economic as well as social indicators of progress and well-being.
2. The course aims to introduce students to the main theoretical and empirical concepts in public economics, equip students with a thorough analytical grasp of implications of government intervention for allocation, distribution and stabilization, and familiarize students with the main issues in government revenues and expenditure. At the end of the course, the students should be able to demonstrate their understanding of the public economics.
3. The paper is useful for the students for illustrating concepts of economics by econometric techniques. It is also helpful to understand more advanced branches of economics and research.
4. Learn how to select research problem.
5. To learn different methods of data collection.
6. Learn how to organise and describe data.
7. To learn basic techniques of good research.
8. To understand how to write good research.
9. To prepare the students to understand the principles of microeconomic theory.
10. The emphasis will be on thinking like an economist and the course will illustrate how.
11. Microeconomic concepts can be applied to analyze real-life situations.
12. To facilitate understanding of the basic concepts of Economics with the help of Mathematics.
13. To encourage students to analyze economic theories by mathematical methods.

PSO's M.A. Political Science

PSO1

1. These courses will help students to encourage and update them with recent trends in political theory.
2. These courses will help learners to understand the basic Political Institutions in India. This paper will be helpful or beneficial to students to learn more about institutions and gain knowledge about Indian institutions.
3. Students need to understand why we study the subject and how current scholarship is informed by what preceded it. This paper may be useful for students to gain all knowledge of international relations as a student of Political Science.
4. This course will help learners to understand the basic administrative theory, organization of administration in India and as well as the world administration.

PSO2

1. It is important for the development of Research interest of the Research students. It also gives research knowledge, awareness about Social problems and its solutions. It also gives fundamental information about research, research problem, solutions and its social relevance. To increase or development of research activities about political concerns which are related to the political human life of the people or society. To promote research in political science like other disciplines of the knowledge.
2. This course will help learners to understand dynamics within political action, power and process and society in India and across the country.
3. The main objective of this paper is to understand and explain the structure of Public Policy. How to decide and Implement Public Policy in Democratic system. This paper is very useful for students and people in society.
4. This course will help learners to be aware about contemporary International and regional organizations with their historical background, performance and relevance.
5. The main purpose is to develop the critical approach within students towards political system and orient them about their duties towards it.
6. The dominant theories of power and the question of equity and justice, the different aspects of balance of power leading to the present situation of a unipolar world are included.
7. The essence of Public Administration lies in its effectiveness in translating the governing philosophy into programmes, policies and activities and making it a part of community living.



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PROGRAMME SPECIFIC OUTCOMES

MASTER OF COMMERCE (M.COM.)

PSO1

1. Participants will become more self-aware and will have identified areas of development for long term effectiveness.
2. Student can understand the i)Management Knowledge ii)Application of management accounting and skill of decision making in business.
3. To impart the students relevant knowledge in the field of Commerce Trade and practices.
4. To equip and train the students to accept the challenges of 21st century in both Academic and Professional area.
5. To enable them to understand complex environment and handle their employment or self employment effectively and efficiently.
6. To learn the basic management concepts and process. Students aware about the safety practices and regulations inside the industry.

PSO2

1. The students will be able to handle finance function.
2. The students will become Successful Finance Manager.
3. The students will become Successful Business Person by handling Finance Function.
4. The students will become skillful account and finance manager.
5. The students will become skillful NET/SET qualified account and finance teacher.
6. The students will become scientific researcher.
7. The students will be able to carry research and survey in area of marketing, HR, Production, account and finance.



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PROGRAMME SPECIFIC OUTCOMES

MASTER OF SCIENCE (M.SC.)

PSO's M.Sc. Chemistry

PSO1

1. Learn various approaches in analyzing structures of simple molecules.
2. Understand the proposed pathways for reactions taking place in coordination complexes such as substitution reactions, redox reactions etc. and the various factors affecting to rates of these reactions.
3. Learn about mechanisms proposed for reactions taking place in coordination complexes, and will be able to understand to explain the product formation based on these mechanisms.
4. Understand how to construct molecular orbital diagrams for simple molecules as well as coordination complexes.
5. Draw molecular orbital diagrams for sigma and pi bond formation in coordination complexes and will be able to understand and explain the difference between respective molecular orbital diagrams.
6. Understand the various types of Reaction Mechanism.
7. Adopt the concept of Bonding in Organic Molecules.
8. Learn the concept of Stereochemistry and to identify the Stereo chemical reactions.
9. Explain the various problems of aromaticity, homoaromaticity and antiaromaticity.
10. Familiarize the various types of Substitution reactions and their mechanism
11. Gain knowledge of free radical reactions.
12. Justifies the various effect of substrate.

PSO2

1. Global level research opportunities to pursue Ph. D. program targeted approach of CSIR–NET examination.
2. Enormous job opportunities at all level of chemical, pharmaceutical, food products, life oriented material industries.
3. Specific placements in R & D and synthetic division of polymer industries as well as in allied division.
4. To impart the chemistry knowledge of global standard.
5. Discipline specific competitive examinations conducted by different organization.
6. Learn the structure determination of organic molecules by spectroscopic methods.
7. Know the complete structure of compounds using UV, IR, PMR, CMR and Mass spectroscopic methods.
8. To understand the Dakin reaction, Etard reaction, HVZ reaction, Umpolung synthesis and Stephen reaction .
9. To know about the Barton reaction, Jones oxidation, Oppenauer oxidation and Michel addition.
10. To update curriculum by introducing recent advances in the subject and enable the students to face NET, SET, MPSC, UPSC and other competitive examinations successfully.
11. To impart the chemistry knowledge of global standard.
12. Global level opportunity for research and Ph.D. program.
13. Discipline specific competitive examinations conducted by different organizations.
14. Enormous job opportunities in chemical, pharmaceutical, food and material industries including academic institutions.
15. Specific placement in R and D in various industries
16. To motivate students for higher education.

PSO's M.Sc. Physics

PSO1

1. Be eligible to get employment as an assistant professor, teacher, etc. in private, semigovernment, government in colleges and schools after fulfilling the requirements and can rise up to the top positions.
2. Work as entrepreneurs pursue their higher studies in related fields including M Phil, Ph D in the national and international universities depending upon the eligibility conditions of the concerned universities.

3. Work as research fellow, scientist in research institutes and carry out research after qualifying the NET/SET/PET examinations handle standard and advanced laboratory equipment, modern instrumentation and classical techniques to carry out experiments.

PSO2

1. Students after completing their post graduation in Physics (M Sc Physics) will be eligible to get employment as an assistant professor, teacher, etc. in private, semi-govt, government in colleges and schools after fulfilling the requirements and can rise up to the top positions.
2. Pursue their higher studies in related fields including M Phil, Ph.D. in the national and international universities depending upon the eligibility conditions of the concerned universities.
3. Work as research fellow, scientist in research institutes and carry out research after qualifying the NET/SET/PET examinations.
4. Handle standard and advanced laboratory equipment, modern instrumentation and classical techniques to carry out experiments.
5. Work as entrepreneurs.

PSO's M.Sc. Zoology

PSO1

1. Classify animals from different groups based on their features.
2. Explain the similarity and differences in structure and function of organs in different groups of animals.
3. Understanding about importance of integument and skeletal systems.
4. Compare the functional morphology different groups of invertebrates.
5. Classify animals from different groups based on their features.
6. Describe different taxa and elaborate on their anatomical and morphological features.
7. Identify and describe homologies between different groups of animals.
8. Identify and access taxonomic information in different online databases.
9. Describe evolutionary relationship between different taxa.
10. Explain about evolutionary distance between different taxa.
11. Infer phylogenetic information and prepare phylogenetic trees.
12. To expose students to updated curricula and to recent advances in the subject and enable the students to face NET, SET and other competitive examinations successfully.

13. To create awareness among students about the latest streams of life sciences including biotechnology, tissue culture, genetic engineering and bioinformatics.

PSO2

1. Able to explain the broad classification of vertebrates based on features.
2. Describe relation between organ systems in different vertebrate groups.
3. Explain the significance of integument and skeletal systems of vertebrates.
4. Compare the structural and functional morphology of vertebrates Elaborate about contemporary developments in the field of molecular biology.
5. Explain the differences between prokaryotes and eukaryotes.
6. Describe the processes of cell communication and carcinogenesis.
7. Learn about latest in gene and genome structure, functions and organization.
8. To improve the quality of laboratory and field work for which zoological study tours and excursions have been made compulsory so that the students can become familiar with field status of ecosystem and surrounding study.
9. To prepare students to attract and develop interest in applied parasitology, animal physiology, genetics, cell biology, fisheries science, toxicology so that the students can select zoology as their career.

PSO's M.Sc. Botany

PSO1

1. This program will train and orient the students in the field of Botany. The students will be placed in plant based industries, research and educational institutes. They can establish their own tissue culture labs. They can provide consultancy services for cultivation of medicinal plants and Identification of plants.
2. Understand the morphology, structure and importance of the various organisms
3. Differentiate between various groups of Fungi, Bacteria, Viruses, and Lichens &
4. Mycorrhiza.
5. Learn the life cycles of individuals belonging to Fungi, Bacteria, Viruses, Lichens & Mycorrhiza.
6. Understand the morphology, structure and importance of the various organisms Differentiate between various groups of Algae, Bryophyta and Pteridophyta.
7. Learn the life cycles of individuals belonging to Algae, Bryophyta and Pteridophyta.
8. To update curriculum by introducing recent advances in the subject and enable the students to face NET, SET, MPSC, UPSC and other competitive examinations successfully.

9. This program will train and orient the students in the field of Botany.
10. The students will be placed in plant based industries, research and educational institutes.

PSO2

1. This program will train and orient the students in developing skill in plant sciences.
 2. They will perform experiments, handle sophisticated equipments. They will acquire the knowledge for interpretation of plant materials and data.
 3. This program will also generate human resource for plant based and seed industries.
 4. This program will also generate human resources for diagnosis and management of plant diseases.
 5. This program will generate expertise in the field of plant identification and phytochemistry and plant tissue culture.
 6. This program will generate employment in the field of agriculture and seed industries, Forestry, Botanical gardens, plant breeding centers.
 7. They can establish their own tissue culture labs.
 8. They can provide consultancy services for cultivation of medicinal plants and identification of plants.
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Co-ordinator, NAAC
Shivaji Mahavidyalaya, Udgir



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