

Vidya Bharati Shaikshanik Mandal, Amravati's

VidyaBharatiMahavidyalaya, Amravati

Affiliated to SantGadge Baba Amravati University, Amravati, Maharashtra
Accredited with grade 'A' by the NAAC (CGPA 3.26: Second Cycle)
CPE Status Thrice by the UGC, 'Star College' status from the DBT,
'Mentor College' under 'Paramarsha' scheme of the UGC
'Lead College' of S.G.B.A.U., Amravati



TITLE OF THE PROGRAM

Program Outcomes

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Department of Physics

Programme Outcomes (PO's):

Preamble:

The systematic and planned curricula from first year to the third year shall motivate and encourage the students for pursuing higher studies in Physics and for becoming an entrepreneur.

Objectives:

- To familiarize with current and recent scientific and technological developments.
- To provide in depth knowledge of scientific and technological aspects of Physics.
- To enrich knowledge through problem solving, hand on activities, study visits, projects etc.
- To train students in skills related to research, education, industry, and market.
- To develop analytical abilities towards real world problems.
- To create foundation for research and development in Electronics.
- To help students build-up a progressive and successful career in Physics

Department of Electronics.

Program Outcomes:

B. Sc. Electronics (Instrumentation)

- PO1: **Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives
- PO2: **Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
- PO3: **Social Interaction :** Elicit views of others were decreased through evaluation of various Projects and Quizzes developed to provide ease of knowledge in electronics among local citizens. Work in Multi disciplinary environments and be responsive to the changing needs to the society.
- PO4: **Effective Citizenship :** Communicate effectively display leadership skills and demonstrate professionalism. Work in multi disciplinary environments and be responsive to the changing needs of the society.
- PO5: **Ethics:** Recognize different value systems of Moral Principles that Govern a person's behavior or conducting of an activity.
- PO6: **Environment and Sustainability:** Generate awareness among them related to environment. Understand the issues of environment.
- PO7: **Self Directed and Life Long Learning:** Engage in lifelong learning, apply the knowledge judiciously and remain continuously employable. Carry out projects and develop new projects in the area of computer science and pursue higher studies.

Department of Zoology

Program Outcomes:

- PO1: **Critical Thinking:** Apply the knowledge of Zoology to identify the animal structure, functions, physiology, genetical problems, environmental studies etc to provide and spread information and awareness among the society.
- PO2 **Effective Communication:** Students use of electronic media . They can read latest articles, writes on specific zoological article speak on zoological knowledge in the common language English.
- PO3: **Social Interaction :** Students will be able to explicate that the relationship between human beings and all ecological factors on the earth by tracing energy and nutrient flows through the environment. They will be able to narrate the physical features of the environment to the structure of populations, communities and whole ecosystem. Students will be understand the concepts of physiology of reproductive system, Menstrual cycle ,Placentation and Birth control measures so that they has the awareness program of social issues related to physical violence, BetiBachav etc.
- PO4: **Effective Citizenship :** Students will be effectively communicate ,that's why develop the leadership skill , and be responsive to the changing needs of the society.
- PO5 : **Ethics :** Zoological students are very well regarding the Human - animal relationship, their system, their physiological functions, animal behavior science, reproductive and embryological information. They observed and prepared micro preparation with the help of micro techniques even staining procedure and then observed the cell under the binocular and Trianacular compound microscope. Even students also studied of lify cycle, life history of invertebrates and vertebrates animal. Departments have official animal Ethical committee
- PO6: **Environment & Sustainability-** Human being plays a special role in eco system they have essential connections between natural ecosystem and socio economic system. Zoology students understanding our impact on environment and they understand the important of managing it sustainability.
- PO7: **Self Directed and Lifelong learning :** The subject zoology is useful and knowledgeable related to human being as well as all invertebrates and vertebrates animals even the study of zoology is continued after the completion of Degree and P. G. Courses up to the end of the life like ageing process.

Department of Botany

Programme Outcome- B.Sc. (Biology)

1. Students will be able to apply the scientific method to questions in biology by formulating testable hypotheses, gathering data that address these hypotheses, and analyzing those data to assess the degree to which their scientific work supports their hypotheses.
2. Students will be able to present scientific hypotheses and data both orally and in writing in the formats that are used by practicing scientists.
3. Students will be able to access the primary literature, identify relevant works for a particular topic, and evaluate the scientific content of these works.
4. Students will be able to apply fundamental principles to the analysis of relevant biological situations.

5. Students will be able to identify the major groups of organisms with an emphasis on plants and be able to classify them within a phylogenetic framework. Students will be able to compare and contrast the characteristics of plants, algae, and fungi that differentiate them from each other and from other forms of life.
6. Students will be able to use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth. They will be able to use specific examples to explicate how descent with modification has shaped plant morphology, physiology, and life history.
7. Students will be able to explain how organisms function at the level of the gene, genome, cell, tissue, organ and organ-system. Drawing upon this knowledge, they will be able to give specific examples of the physiological adaptations, development, reproduction and behavior of different forms of life.
8. Students will be able to explicate the ecological interconnectedness of life on earth by tracing energy and nutrient flows through the environment. They will be able to relate the physical features of the environment to the structure of populations, communities, and ecosystems.
9. Students will be able to demonstrate proficiency in the experimental techniques and methods of analysis appropriate for their area of specialization within biology.

Department of Chemistry

Program Outcomes:

- PO1 **Critical Thinking** : The curriculum is aimed to inculcate ability to solve the problems and also think scientifically, independently and draw rational conclusions. The students acquire prominent ability to observe accurately and objectively.
- PO2 **Effective Communication** : The medium of instruction for this course is English. English being used in many countries, students develop habit to communicate in English using language and terminology used in Chemistry.
- PO3 **Social Interactions**: This course is designed to inculcate awareness for environment related issues in students. They are made aware of optimal use of Chemicals, resources viz. water, fuels and time and money.
- PO4 **Effective Citizenship** : The program helps students to understand pollution problems, waste water management, effective use of resources, etc. They are also made conscious regarding importance of energy and water, food, fuels, general hygiene and cleanliness, etc.
- PO5 **Ethics** : In this program students are made sensible regarding misuse of chemicals and resources. They work in team to complete projects, during which they follow the ethics of team work.
- PO6 **Environment and Sustainability** :Being Chemistry students they become very familiar with various pollutants, their sources and their impact on eco-system. So they become sensible for protection and conservation of environment.
- PO7 **Self Directed and Life Long Learning** : Chemistry curriculum instills curiosity and problem solving approaches which make them self-sufficient and learning becomes a continuous process throughout their life.

Department of Mathematics

Programme Outcome (PO's) for B.Sc., Mathematics

By the end of this course, the student will be able to:

- To equip students with analytic and problem solving skills.
- Think in a critical manner.
- Formulate and develop mathematical arguments in a logical manner.
- Acquire good knowledge and understanding in advanced areas of mathematics.
- To develop student abilities and aptitudes to apply mathematical methods and ideas not only to problems in mathematics and related fields such as the sciences, computer science but also to virtually any area.

Department of Computer Science

Program Outcomes(Pos)

- PO1 Critical Thinking: Apply knowledge of Computer Science to identify, analyze problems and to provide effective solution in the area of Computing
- PO2 Employability Skills: Inculcate skills to excel in th fields of Information Technology and its Enabled services, Government and Private sectors, Teaching and Research.
- PO3 Analytical Skill: Ability to design, develop algorithms and provide software solutions to cater the industrial needs.
- PO4 Self Directed and Life-long Learning: Engaged in lifelong learning to equip them to the changing environment and be prepared to take-up mastering programmes.

B.Sc. (Computer Application)

Program Outcomes(Pos)

- PO1 Able to design and develop reliable software applications for social needs and excel in IT enabled services
- PO2 Able to analyze and identify the customer requirements in multidisciplinary domains, create high level design and implement robust software applications using latest technological skills.
- PO3 Proficient in successfully designing innovative solutions for solving real life business problems and addressing business development issues with a passion for quality, competency and holistic approach
- PO4 Perform professionally with social, cultural and ethical responsibility as an individual as well as in multifaceted teams with positive attitude
- PO5 Capable of adapting to new technologies and constantly upgrade their skills with an attitude towards independent and lifelong learning.

Department of Marathi

Program Outcomes (PSOs)

1. Literal sense
Literature is developed for students studying Marathi literature.
2. Story writing
The ability to write capacity stories is developed in the students.
3. Skill development
Marathi Practical Writing, Writing, Writing, Writing etc. The skills are developed by practicing them.
4. Authoring writing
The ability of the Marathi-language scholars to write self-poems and develop their ability to write life stories.
5. Poetry inspiration
Poetry, inspired by the study of inspiration for writing songs.
6. Poetry inspiration
The language learners from Marathi, drama and films, inspired the writing and writing of script.

Department of Commerce

Bachelor of Commerce (Accounting & Finance)

Program Outcome (POs)

This program could provide well trained professionals for the Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., to meet the well trained manpower requirements.

Bachelor of Commerce (Grant in aid Course)

Program Outcome (POs)

The B.Com graduate will be -

- PO-1 Posses wide spectrum of commercial activities skill along with competency building qualities in specific areas of business studies.
- PO-2 Practicing Professional Skills, Value, Team Spirit & leadership qualities & to accept the 21st century challenges of the industry & society.
- PO-3 Proficient in contemporary knowledge of business, Commerce & Developing towards lifelong Learning.

Department of English

Program Outcomes (UG-Level)

- PO 1: Students will be able to overcome over the communication barriers those they were facing before in English Language.
- PO 2: Students will begin to take an interest in English Literature and Writings.
- PO 3: Students will learn to use grammatically correct language. They will have grammatical accuracy in English.
- PO 5: Students will be able to set the correlation between literature and society.
- PO 6: Students will be able to value literature and humanity.

Department of Cosmetic Technology

Program Outcomes (PO)

- PO1. **Cosmetic Knowledge:** Apply the knowledge of cosmetic formulation, manufacturing, analysis and marketing, and cosmetic specialization to enhance knowledge of the science of cosmetic and toiletries and special emphasis on the preparations from herbal and natural origin.
- PO2. **Problem Analysis:** Identify, formulate, research and analyze complex problems, while developing cosmetic product, reaching substantiated conclusions using first principles of chemistry, dermatology, natural sciences and cosmetic sciences.
- PO3. **Design & Development of Products:** Design a perfect formulation and development of a proper cosmetic product and design solutions for problems occur during the process or completion of process that meet with appropriate consideration for the public health and safety.
- PO4. **Conduct investigations of complex problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern appliances and digital tools including predictions and designing cosmetics with an understanding of the limitations.
- PO6. **The cosmetologist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and other issues and the consequent responsibilities relevant to the professional cosmetics practice.
- PO7. **Environment and sustainability:** Understand the impact of the development, testing and marketing of cosmetics in social and environmental context, and demonstrate the knowledge and need for sustainable development.
- PO8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the cosmetic technologies.
- PO9. **Individual and team work:** Works effectively as an individual, as a member or a leader in diverse teams or groups and in multidisciplinary settings.
- PO10. **Communication:** Communicate effectively on cosmetics activities with the industrial community and with society at large, such as, being able to grasp and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

- PO11. **Critical thinking:** Take knowledgeable actions after identifying the assumptions that surround our thoughts and actions, checking out the points to which these assumptions are accurate and valid and looking at our ideas and decisions from different perspectives.
- PO12. **Project Management and Finance:** Exhibits knowledge and perceptiveness of cosmetics and management ethics and apply these to one's own job, as an associate or a person in charge of project to manage well in multidisciplinary environments.
- PO13. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the wide perspective of technological change.

Department of Computer Application (BCA Course)

PO of BCA

- Impart proficiency in the basic mathematics and programming methods as employed in computer science.
- Provide knowledge of algorithms and explain their role in computer science.
- Train participants in understanding and applying fundamental structured programming techniques.
- Cultivate the ability to adapt to technological changes and innovations in the discipline.
- Demonstrate the critical thinking and communication skills required in a technical environment.
- Teach the appropriate computer application methods such as functional programming and object-oriented programming paradigms to enable participants to analyze, design, implement and evaluate computerized solutions (such as developing computer programmes) to real-life problems.
- Enable participants to be part of live projects to implement and test their computer application skills and provide feedback and a roadmap for progress.
- Help participants acquire the knowledge, skills, experience and values to become lifelong learners and be able to obtain employment in a computer-related field or go on to graduate study.

Department of Psychology

Program Outcomes-

- PO 1. Behavior and the processes underlying it. Understand human behavior and the processes underlying it including normal and deviant behavior.
- PO 2. Learning strategies. Analyze principles of learning, models of learning and memory.
- PO 3. Problem solving strategies. To understand various strategies of problem solving and impediments in problem solving behavior.
- PO 4. Applications of psychology principles in daily life. Theories into practice so as enhance well being.
- PO 5. Self regulation, resilience and self control. Elicit self regulation, resilience and understand self.

- PO 6. To become a professional practitioner. To use psychological principles in understanding human behavior and to become a counselor and a therapist.
- PO 7. Professional ethics. Psychological testing, therapy, selection of proper test, knowledge of technical aspects of test, test administration, communication of test results, administration of test.

Program Outcomes of Post-Graduate Courses Department of Botany

Program Outcomes (PO) - M.Sc. Botany

1. **Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
2. **Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
3. **Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
4. **Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
5. **Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
6. **Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio- technological changes

Commerce Department

M.Com.

Program Outcomes (P.O) :

- PO1: **Accounting Knowledge:** This course acquaints the students with accounting knowledge related to Corporate Firms, Mergers & acquisitions, Costing Concepts related to Management Decisions.
- PO 2: **Computer Knowledge:** This course acquaints the students with applications used in business and various other computer tools for communication purpose.
- PO 3: **Management Theories:** This course acquaints the students with Management concepts and how management theories will help in development and growth of Business Organizations.
- PO4: **Marketing & Relationship Management:** This course acquaints the students with marketing concepts and how business organization growth depends on Marketing & Tie-up relationships with other Business Organizations.
- PO 5: **Career Opportunities:** To equip the Post graduate students to accept the challenges of Business world and seek suitable careers in Management & Entrepreneurship.

Department of Computer Science

Program Outcomes(PO's)

- PO1 **Domain Expertise:** Communicate computer science concepts, designs, and solutions effectively and professionally
- PO2 **Computing Skills and Ethics:** Apply knowledge of computing to produce effective designs and solutions for specific problems
- PO3 **Lifelong Learning and Research:** Identify, analyze, and synthesize scholarly literature relating to the field of computer science
- PO4 **Modern Tool Usage:** Use software development tools, software systems, and modern computing platforms.
- PO5 **Social Contribution:** An understanding of professional, ethical, legal, security and social issues and responsibilities

Department of English

Program Outcomes (PG-Level)

- PO 1: Students will be able to have a complete picture of British as well as World Literature.
- PO 2: They will be able to interpret and evaluate the social and literary text with the help of their critical and analytical skills.
- PO 3: Students will be able to acquire thorough knowledge about literary criticism and contemporary critical theory.
- PO 4: They will be able to gain an insight into research and research methodology.
- PO 5: Students will learn to manifest their expertise in Literature, Literary History and Literary Theory.

Department of Mathematics

Programme Outcome (PO's) for M.Sc., Mathematics

- Apply knowledge of Mathematics, in all the fields of learning including higher research and its extensions.
- Innovate, invent and solve complex mathematical problems using critical understanding, analysis and synthesis.
- Adjust themselves completely to the demands of the growing field of Mathematics by lifelong learning.
- Effectively communicate about their field of expertise on their activities, with their peer and society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations
- Crack lectureship and fellowship exams approved by UGC like CSIR NET and SET.

- PO 6. To become a professional practitioner. To use psychological principles in understanding human behavior and to become a counselor and a therapist.
- PO 7. Professional ethics. Psychological testing, therapy, selection of proper test, knowledge of technical aspects of test, test administration, communication of test results, administration of test.

Program Outcomes of Post-Graduate Courses

Department of Zoology

Program Outcomes (PO) - M.Sc. Zoology

1. **Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
2. **Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
3. **Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
4. **Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
5. **Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
6. **Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio- technological changes