Mahatma Fule Arts, Commerce and Sitaramji Chaudhari Science Mahavidyalaya,
Warud, Dist. Amravati

POs, PSOs & Cos

Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

Response:
The college has been successfully running programmes like viz: **BA, B.Com, B.Sc., M.Com, M.A.** (Economics, English, Marathi, Political Science), **M.Sc.** (Chemistry, Computer Science) **Ph.D.**

The institute is affiliated to Sant Gadge Baba Amravati University, Amravati. Affiliated university has mentioned the Cos, POs and PSOs in the syllabus of various faculties/subjects.We follow the same Cos, POs and PSOs at our institutional level.

Bachelor of Arts (B.A)
#English-
(PSOs)

- Comprehend various forms of literature like Prose, Poetry, Drama and Fiction.
- Develop the knowledge of grammatical system.
- Develop four language skills Learning, Speaking, Reading and Writing.
- Widen scope of employability and Entrepreneurship viz. Teaching, Civil Services and Creative Writing.

(COs)

- Understand the basic knowledge of English language and literature
- Understand the relation between literature and real life.
- Understand and interpret the prose, poem, short stories
- Write the News Report, Letter, Essay, Paragraph etc.
- Avail the pleasure of literary forms such as Novel, Poem, Play etc.
- Develop interview technique, Reading Skills, Writing Skills and Speaking Skills.
- Enhance the interest in English Language.

#English Literature-
(PSOs)
- Understand Literary Movements that existed in different ages.
- Define Literary Theories and Terms in Criticism.
- Develop reading, writing and analytical skills.
- Communicate their ideas critically and creatively.

(COs)
- Analyse various forms of literature.

- Acquaint them with the forms of structures and aesthetics of style and techniques of literary works.
- Analyse various elements of literature.
- Communicate in English orally and in writing.
- Kindle their critical thinking skills.

#Philosophy –

(PSOs)

- To develop the insight among students about Fundamentals of Indian and Western Philosophy
- To create an interest among the students about various Indian and Western Schools.
- To classify between Indian and Western Philosophical thoughts.
- To inculcate and develop Ethical Values among the students.
- To apply the various Moral Values in day to day life.
- To analyze the moral thoughts of Contemporary Indian Saints.

(COs)

- To create insight about Nature of Philosophy.
- To develop understanding of Branches of Philosophy.
- To identify various isms in Philosophy.
- To develop insight into Orthodox and Heterodox Schools and Contemporary Indian Philosopher.
- To Evaluate Ancient, Medieval and Modern Western Philosophy and Contemporary Western Philosopher.

#Economics-

(PSOs)

- **Problem analysis:** recognize formulate and study the problems of various sectors of the Indian economy, regional economy and the global economy with the help of the economic ways of thinking, theories, concepts and laws.
- Apply the knowledge of economic concepts, laws and theories, for a better economic environment for the society at large.
- Communicate effectively on the economic activities with the community and the society through the acquiring knowledge of the national and the global economy.
- To build on these concepts to develop deeper understanding of Economy in the future.
- Explain the basic concepts, laws and theories related to the economic behavior of the human being.
- Graduates from our department are effectively taught and explained the cause with the help of visual aids like white board and PowerPoint Presentation.
- They will be able to visualize the real world situation and enhance them to initiate the programmers for pursuing studies and be alert with the importance of entrepreneurial skills for their self-employment, to improve the general attitudes and living conditions of the masses.

(COs)

- Apply knowledge and skill in the field of Economics and will be able to have the employability in these areas.
- Describe and apply the methods for analysing consumer behaviour through demand and supply, elasticity.

- Perform analysis to analyse the impact of economic events on Markets,
- To create a new approach towards the study of Economics.
- The course will illustrate how microeconomic concepts can be applied to analyze real-life situations
- Analyse the performance of firms under different market structures,
- Evaluate the factors affecting firm behavior, such as production and costs
- To have better awareness regarding different Factors Pricing Rent, Wages, Interest, and Profit.

#Political Science-
(PSOs)
- To understand the basic structure of Indian political system
- To Inculcate interest in political field
- To create the leadership qualities in students
- To understand Indian governing system

(COs)
- Understand and explain the significance of Indian constitution as the fundamental law of the land.
- To know the making process of the constitution and salient features of Indian constitution.
- Exercise the fundamental rights in proper sense at the same time identifies his responsibilities in national building.
- Analyze the Indian Political System, the powers and functions of the Union, State Government in detail.
- Critically analyzing the important institutions of Indian Union: The Executive: President, Vice-President, Prime Minister, Council of Ministers, State Executive: Governor, Chief Minister, Council of Ministers, The Legislature: Rajya Sabha, LokSabha, State Legislature, The Judiciary: Supreme Court and High Court: Composition and jurisdictions.
- To make conscious of the social, cultural, economic and political environment that affects politics in India, at the national as well as regional levels.

#Home-Economics-
(PSOs)
- Describe the home management process and apply it in practice for planning and executing inside and outside the home
- Play model role as a home maker, home manager, home Scientist, counselor as well as play a different role in different kinds.
- Build Confidence to create her own business and adjust in it better way.
- Derive certain changes in behavior and attitudes that require for effective communication and as a Entrepreneur.

(COs)
- Explain about Function of Food.
- Define Protecting & Regulating Nutrients.
- Communicate the function and sources of Plant & Animals Food.
- Apply Principals of Food Preservation while handling Methods.

B.Com. course:

(PSOs)
- To enhance competency levels of learners.
- To develop entrepreneurial and analytical skills in finance and accounts etc.
- To instil managerial and global skills.
- To get gainful employment in Banks, Insurance company, Industries, Government departments etc.

B.Sc. course:
#Botony-
(POs)
- **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.
- **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.
- **Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **Effective Citizenship:** Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
- **Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

(PSOs)
- Identify major groups of plants and compare the characteristics of lower (microbes, algae ,fungi, bryophytes and pteridophytes) and higher (Gymnosperms and angiosperms).
- use evidence based comparative botany approach to explain the evolution of organism and understand the genetic diversity.
- explain various plant processes and functions, metabolism, concepts of gene, genome and how organism's function is influenced at the cell, tissue and organ level.
- understand adaptation, development and behavior of different forms of life.
- demonstrate the experimental techniques and methods of their area of specialization in Botany.

#Chemistry-

(POs)

- **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.
- **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. Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **Effective Citizenship:** Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
- **Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development. Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

(PSOs)

Upon completion of the programme successfully, the learners would be able to-

- Understand the scope, methodology and application of modem chemistry.
- Apply theoretical and practical concepts of instruments that are commonly used-in most chemistry field.
- 3. Plan and conduct scientific experiments and record the results of such experiments.
- Get acquainted with safety of chemicals, transfer, and measurements of chemicals, preparation of solutions, and using physical properties to identity compounds and chemical reactions.
- Describe how chemistry is useful to solve social, economic and environmental problem and issues facing our society in energy, medicine, and health.

#Computer Science –

(POs)

- **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.
- **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.
- **Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.

- **Effective Citizenship:** Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
- **Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

(PSOs)

At the end of this program, the students would be able to:
- Understand the computer hardware and software.
- Use the knowledge of software installation.
- Select modern computing tools and techniques for programming task.
- Identify, analyze, formulate and develop computer-based solutions to meet desired needs within realistic constraints.
- Develop databases and perform operations on them.
- Identify research and development areas in multiple disciplines.
- Design and develop the small web applications.

#Electronics-

(POs)
- Utilize the basic knowledge in Electronics science.
- Identify electronic components and ICs.
- Design system components that meet the requirement of public safety and offer solutions to the societal and environmental concerns.
- Apply research based knowledge to design and conduct experiments.
- Construct, choose and apply the techniques, resources and modern electronics tools required for Electronics applications.
- Apply the contextual knowledge to assess societal, health, safety and cultural issues and endure the consequent responsibilities relevant to the professional electronics practice.
- Examine the impact of electronics solutions in global and environmental contexts and utilize the knowledge for sustained development.
- Develop consciousness of professional, ethical and social responsibilities as experts in the field of Electronics and Communication.
- Perform effectively as a member/leader in multidisciplinary teams.
- Demonstrate resourcefulness for contemporary issues and lifelong learning.

(PSOs)
- Acquire knowledge in fundamental aspects of all branches of Electronics.
- Create inquisitiveness and problem-solving skills.
- Apply the principles of Electronics in solutions to real world problems.
- Get prepared for higher education and career in Electronics.
- Develop skills in the proper handling of apparatus and components.
- Apply Electronics in their day to day life.

- Act as a responsible citizen.
- Select and apply cutting-edge engineering hardware and software tools to solve complex Electronics and Communication Engineering problem.
- Apply the fundamental concepts of electronics and communication science to design a variety of components.

#Zoology-

(POs)

- **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.
- **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.
- **Social Interaction**: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **Effective Citizenship:** Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
- **Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

(PSOs)

By the end of the programme, Students would be able to-

- Develop a deeper sense with respect to phylum Protozoa to Echinodermata relation to taxonomy, classification, body organization and general characteristics this strengthens students' capability in basic zoology.
- Grasp various the Systematic positions from Protozoa to Echinodermata their pathogenicity and its epidemiology.
- Describe unique characters and recognize life functions of Protozoa, Porifera, Coelenterate, Helminthes, Arthropoda, Annelida, Mollusca and Echinodermata. Improve ability and apply Knowledge of Nonchordates for its execution in Agriculture especially with the phylum Arthropoda.
- Implement an extensive idea about economic and ecological significance of various non-chordates phylum's in human life.

#Physics-

(POs)

- **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.

- **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.
- **Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **Effective Citizenship:** Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
- **Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

(PSOs)

Upon completion of the Programme successfully, students would be able to-
- Acquire a comprehensive knowledge and sound understanding of fundamentals of Physics.
- Develop laboratory skills, enabling them to take measurement in a physic laboratory and analyze the measurements to draw valid conclusions.
- Be prepared to acquire a range of general skills, to solve problems, to evaluate information, to use computers productively, to communicate with society effectively and learn independently.
- Develop good oral and written scientific communication skill.

#Mathematics-

(POs)
- Enhance the knowledge of student in all basic sciences.
- Identify ,formulate and develop solutions to computational challenges.
- Develop scientific temper and think in a critical manner.
- Build up progressive and successful career in academics, industry and society.
- Develop students abilities and aptitudes to apply the mathematical ideas.

(PSOs)
- Understand major concepts in all disciplines of Mathematics.
- Formulate and develop Mathematical arguments in a logical manner.
- Gain good knowledge and understanding in advanced Mathematics.
- Create an awareness of the impact of Mathematics on the environment, society and development outside the scientific community.
- Create sensitivity towards environmental concerns and contribute in the development of nation.

#Master of Commerce (M.Com)

(POs)
- To acquire a job as an Economist, Market Research Analyst, a banker, management consultant, stockbroker/trader, Actuary, Financial analyst, Financial advisors or Advisor to Tax Law Court etc.

- 2) To acquire the process of managerial economics, demand analysis, production theory, price determination and prizing practices, etc.
- 3) To acquire proficiency in the accounting concepts as well as tools and techniques used for taking managerial decisions.
- 4) To master the knowledge of ratio analysis, cash flow and budgetary control.
- 5) To achieve decision making abilities in the situation of uncertainty in dynamic business environment.

(Cos)

- Students will understand seven phases of marketing of service in depth.
- Student will understand strategic issues peculiar of service marketing.
- Investments are assets held by an enterprise for earning income
- Final Accounts gives an idea about the profitability and financial posting of business to its management, owners and other interested parties.
- Application of CIBIL Score in qualifying the proposal of advances .
- Impact of Monetary Policy on various industries

#MA- English & Marathi (MA)

(POs)

- To educate students in English literary and critical writing with a view to enable them to probe literary & critical theories & contexts that require substantive expertise in literature.
- To develop and foster ideological sense and a sense of social awareness and cultural understanding.
- 3) To acquire proficiency in expression skills and critical thinking skills through exposure to various forms & genre of writing.
- To develop research, critical and analytical attitude & approach in the students.
- To help emerge social thinkers & critics who can take up a study of various social problems and issues that ail the society and impede social change and progress and contribute to the process of social transformation and social progress.
- To help grow great leaders, thinkers, artists, visionaries, pundits / experts, educationists, managers, consultants, guides, coaches, social analysts, reformers, social activists, social pleaders & crusaders, think-tanks, journalists, critical and creative writers professionally in various fields of knowledge.

(COs)

- The students would acquire critical attitude and approach and gain knowledge, intellectual competence and critical scholarship which would help them to improve their performance in competitive exams like MPSC/UPSC/NET/SET in the subject.
- The student will be able to understand and apply the evocative power of language and would be able to apply critical insight and judgment to form an informed and impactful opinion.
- The Student will be fairly acquainted with the background and socio-political as well cultural background of the poets and understand the factors behind their making and evolution. The student will grasp the distinctive writing style and technique of various poets & creative writers.

- The student will acquire enhanced sensibility and emotional depth and maturity in his/her expression.
- The student will understand the socio-political and cultural importance of Literature and Literary Criticism.
- The Course would help emerge social thinkers & critics who can take up various social problems and issues that ail the society and impede social change and progress and thus to achieve social transformation and social progress.

#MA- Economics-

(POs)
- To analyse the Economic Issues related to local to global scenarios.
- This programme helps to understand the various Social, Political and Economic Institutions.
- Applying their knowledge to assess issues in fields of agriculture, industry, banking ,finance environmental and societal issues to provide practical solutions.
- Formulate and execution of field study, and an industrial visit to get practical exposure to the latest issues.
- To understand how economic policies affect the common people through interactions.
- To utilize the research spheres of Economics.

(PSOs)
- Helps to understand the basic theories of economic growth and development.
- Students will be able to understand the working principles of Money Market and Capital Market.
- Students should be able to develop knowledge about production, demand, market and pricing.

#MA- Political Science-

(POs)
- Familiarity with different approaches to the study of Political Science and an ability to apply this to contemporary political problems.
- An ability to formulate and construct logical argument about political phenomena.
- Comprehend the basic structure and functions of government systems and theoretical understandings.
- Analyse political problems, argument, information, theories.
- Apply methods appropriated for accumulating and interpreting data applicable to political science.
- An ability to analyse the election data and to develop leadership qualities among students.

(PSOs)
- Ability to discuss about Indian Constitution and Political process. student to grasp knowledge of provisions in constitution of India regarding fundamental rights, Directive principles, Parliament, judiciary and executive body at centre and state.
- Learn about the various Political thought in Maharashtra like Dr.B.R. Ambedkar, M.G.Ranade, Dr. Punjabrao Deshmukh, and Mahatma Phule etc.
- Student are acquainted with the Indian political thought and western political thought various ideologies like Feminism, liberalism ,socialism, Environmentalism etc.

- Student are acquainted with the Theories and aspects of international relations, nonalignment movement, new world economic order etc.
- Learn about the political process in India and acquainted with Governance and public policy in India.
- Students are able to develop leadership qualities and Election analysis.
- Understanding & Analyzing the nature and developments in national and international politics.

#M. Sc.- Chemistry-

(POs)

- **Deep subject Knowledge and intellectual breadth** - Apply the subject knowledge to the solution of real-world problems.
- **Professional Ethics** - Apply ethical principles and commit to professional ethics and responsibilities and norms of the standard practices.
- **Creative & 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.
- **Innovation, Research and Problem Solving** - Identify, formulate, review research literature, and analyze complex problems reaching substantiated and innovative conclusions. Design solutions for complex problems with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. Use research-based knowledge and research methods to provide valid conclusions. Demonstrate the knowledge of, and need for sustainable development.
- **Team work and Communication Skills** - Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. Present/communicate research at national/international level, write effective articles, reports and design documentation, make effective presentations, and give and receive clear instructions. Communicate disciplinary knowledge to the community and broader public.

(PSOs)

- observe, analyze and interpret chemical phenomena and process
- design and develop new molecules/processes with industrial and societal applications
- formulate new ideas/concepts in chemical sciences and test them
- communicate effectively the principles and practice of chemical sciences
- address issues of environment, health and development from a chemical perspective
- To impart knowledge of various aspects of industry.

#M.Sc.- Computer Science-

(POs)

- Problem Analysis Identify, formulate, review research literature and analyze complex engineering problems in Computer Science and Engineering reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
- Design / Development of Solutions Design solutions for complex engineering problems and design system components or processes of Computer Science and

Engineering that meet the specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.

- Conduct Investigations of Complex Problems Use research-based knowledge and research methods including design of experiments in Computer Science and Engineering, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

- Modern tool usage Create, select and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex activities related to Computer Science with an understanding of the limitations.

- The services to the society Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice in Computer Science and Engineering.

- Project Management Demonstrate knowledge and understanding of the computer science and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. PROGRAMME SPECIFIC OUTCOMES (PSOs) Upon completion of the programme successfully,

(PSOs)

- Deliver efficient solutions for emerging challenges in the computation domain through continuous learning.
- Design, develop, implement computer programs and use knowledge in various domains to identify research gaps and hence to provide solution to new ideas and innovations.