



SMT. G.G. KHADSE COLLEGE, MUKTAINAGAR.

DEPARTMENT OF GEPGRAPHY

PROGRAMME OUTCOME

AND

PROGRAMME SPECIFIC OUTCOME

Program Outcome

On completion of the B.Sc.(Chemistry) students are able to:

1. With the help of different educational modules, figures facts and animated slides of basic science as well as interdisciplinary science enhanced them to acquire quality education and knowledge.
2. Scientific theories, Principles and basic concepts visualisation and increased imagination helps students for better understanding and relate with academic syllabus
3. Having good hand in all scientific instruments prescribed in their academic syllabus so they are able to represent comprehensively all their experimental observations and results.
4. Able to express his/her opinions and ideas to excel his or her personal activities consequently which helps to achieve institutional excellence and goals.
5. All round and interdisciplinary approach of teaching and learning environment in institution is helpful for students to tackle the problems in their competitive life and career.

Program Outcome

On completion of the M.Sc.(Chemistry) students are able to:

1. Learned to work hard with commitment to pursue challenges in the career of science field and able to work hard for growth of himself/herself as well as for the organisation by adding value in it.
2. Comprehensively able to face the challenges of the practical work and raised at the confident position with developed determination and dedication. Also, encouragement to use of different reference book, research journals, periodicals and internet adding values in their career.
3. Harmonious environment in different lectures, guest lectures, workshops while understanding and discussing of important theories, inventions, struggle stories of scientists encouraged them for more efforts and hardwork.
4. Encouragement to participate in different seminars, research conferences and festivals helping them in development of their own independent designing of academic research project works and also in independent execution of the same.

5. Comprehended in all necessary instrumental handling decided in academic syllabus resulted become capable to handle research projects in different esteemed research labs and various industrial R & D labs.
6. Development of environmental concern and awareness along with moral, ethical values in students through the institution.

Program Outcome

On completion of the B.Sc.(Botany) students are able to:

1. Understand the diversity among Vascular and non vascular plants.
2. Understand the Biochemical nature of cell and know the chemical nature of biomolecules.
3. Understand the different process occurred in higher plants like photosynthesis, Respiration, Nitrogen metabolism, Transpiration, Growth etc.
4. Learn about the movement of sap and absorption of water in plant body.
5. Understand plant communities and ecological adaptations in plants.
6. Gain knowledge about “Cell Science”.
7. Understand the fundamentals of Recombinant DNA Technology.
8. Create platform for higher studies in Botany

Program Outcome

On completion of the B.Sc.(Bio-technology) students are able to:

Job prospectus after completing this course

Employment - A Biotechnology graduate can get has ample opportunities in various fields can get positions as Technologist, Scientist, Executive, Officer, Assistant manager, Deputy Manager and Manage, Head in Production units, Quality control Units, Research and development Units in following sectors -

- 1) Food and dairy Sector –for checking the quality of food/milk, for developing the process for consumer needed products or their quality.
- 2) Industrial Biotechnology Sector- For monitoring, regulating and developing, quality controlling of fermentation process for enzymes, amino acids, vitamins, antibiotics, organic acids, and alcohols production

3) Pharmaceutical biotechnology sector- For microbial testing and validation of drug, prevention of risks of contamination, toxins, pyrogens etc. Quality assurance, environmental monitoring, sterility test, antibiotic assay, microbial limit test.

4) Medical Biotechnology – for studying the cause, transmission, treatment, control and prevention of various diseases. For implementation and awareness of hygiene, prophylaxis, immunization etc.

5) Microbial Ecology field –For examining biotransformation of inorganic matter, plant microbe interaction, biogeochemical cycles.

6) Agricultural Biotechnologists – For studying various plant diseases their prevention and control by using suitable control measures. Preparation and development of region specific biofertilizers, biogas production and composting
Self Employment –as small scale entrepreneur

1) Dairy unit – For manufacturing of curd, pro-biotics, cheese, fermented milk etc

2) Agriculture units - For manufacturing of biofertilizers, biopesticides, plant growth regulators, consultancy for soil analysis and examination of plant diseases and their control.

3) Solid waste management unit– For composting of solid waste and preparation of compost

4) Pathology/Diagnostic laboratory – Histological/pathological/microbiological/biochemical examination of blood, urine, sputum, serum and other types of samples.

5) Mushroom cultivation unit

6) Tissue culture unit – Preparation if tissue culture of cash crop plant, hardening of plantlets

7) Consultant microbiologist/pathologist/biochemist

8) Consultant plant pathologist

Program Outcome

On completion of the B.Sc.(Computer science) students are able to:

1. Realize that pursuit of knowledge is a lifelong activity and in combination with untiring efforts and positive attitude all necessary qualities for leading a successful life.
2. Think creatively to propose novel ideas in explaining facts and figures or providing new solution to the problems.
3. Analyze the given scientific data critically and systematically and drawing objective conclusions.
4. Conceive where and how subject knowledge can be used in future for a betterment of mankind.

Program Outcome

On completion of the M.Sc.(Computer science) students are able to:

1. Acquire problem solving skills required for IT Industry from various hands on experiences.
2. Serve as the Programmers or the Software Engineers with the sound knowledge of practical and theoretical concepts for developing software.
3. Work as System Administrators and Web designers in IT Industry.
4. Use knowledge in various domains to identify research gaps and hence to provide solution to new ideas and innovations.
5. Pursue higher studies and research

Program Outcome

On completion of the B.A. students are able to:

1. Realize the significance of human values.
2. Inculcate sense of social service and make the students a responsible and dutiful citizen.
3. Develop critical and creative ability and mind.

4. Understood basic concepts in the related subject.
5. Learned the art of living and better life.
6. Became conscious individual.
7. Get ready with the skills needed in the market.

Program Outcome

On completion of the M.A. students are able to:

1. Acquire deep knowledge in the subject of specialization.
2. Develop interest in research and further studies.
3. Become an independent individual with critical and analytical thinking.
4. Get ready for job and placement.
5. Be ready to use their learning and knowledge for the betterment of mankind.

Program Specific Outcome

On completion of the B.Sc.(Computer science) students are able to:

1. Understand the principles and working of computer systems. Students can assess the hardware and software aspects of computer systems.
2. Acquire problem solving skills required for IT Industry from various hands on experiences.
3. Serve as the Programmers or the Software Engineers with the sound knowledge of practical and theoretical concepts for developing software.
4. To work as System Administrators and Web designers in IT Industry.
5. Ability to use knowledge in various domains to identify research gaps and hence to provide solution to new ideas and innovations.
6. Pursue higher studies and research.

Program Specific Outcome

On completion of the M.Sc.(Computer science) students are able to:

1. Provides technology-oriented students with the knowledge and ability to develop creative solutions.
2. Develop skills to learn new technology.
3. Design and develop computer programs/computer-based systems in the areas related to algorithms, networking, web design, cloud computing, Artificial Intelligence, Mobile applications.
4. Conceived where and how subject knowledge can be used in future for a betterment of mankind.

Program Specific Outcome

On completion of the B.Sc.(Chemistry) students are able to:

1. Developing a new generation having scientific insights and innovative mindsets
2. Develop the skills essentially required to work in different research projects and R & D's of the various industrial organisation.
3. Generating environment to understand scientific facts, concepts, principles and theories by using conventional methods along with new animated slides also.
4. Encouraging for different competitions and curricular programs helps to develop moral values in their personal development
5. Able to handle all hazardous chemicals with understanding of their security measures.
6. Able to detect compounds or elements qualitatively as well as quantitatively by using all said analytical methods.
7. Able to handle different analytical instruments like pH metre, colorimeter, polarimeter, conductometer, and potentiometer.

Program Specific Outcome

On completion of the M.Sc.(Chemistry) students are able to:

1. Able to understand reaction mechanism and Kinetics
2. Able to optimise the organic reaction conditions with the help of thin layer chromatography TLC technique
3. Able to elucidate the structure of organic compounds using the knowledge of UV, IR, Mass and NMR spectroscopic knowledge.
4. Able to handle comprehensively UV spectrophotometer to analyse the compounds
Able to figure out designing of new introduced lead compounds essentially synthesized new medicinal reactive compounds.
5. Able to handle software's required chemistry students like Chemdraw, Origin along with routine data entry software's like Microsoft Office and also able to fetch notes, literature, and research information by using internet

Program Specific Outcome

On completion of the B.Sc.(Bio-Technology) students are able to:

During study of this course a student is expected to acquire/learn skills related to following aspects of biotechnology

- 1) Molecular biology skills – like conjugation, transformation, isolation of DNA and protein and nucleic acid separation by electrophoresis
- 2) Immuno-biotechnology skills – like Immuno-diffusion, qualitative and quantitative estimation of antigen/antibody
- 3) Microbiological skills – like isolation, enumeration and identification of bacteria, biological assay of antibiotics and chemicals
- 4) Health biotechnology skills – like detection of potability of water - MPN test, determination of BOD.
- 5) Applied and agriculture skills – like isolation and identification of plant pathogens and useful soil microbes and preparation of biofertilizers.
- 6) Food and dairy biotechnology skills – like Isolation of idli and other food fermenting, detection of mycotoxin, microscopic examination of food/milk, Quality checking of milk
- 7) Tissue culture skills – like techniques for preparation of animal and plant cell culture, microscopic examination of cell types and cell culture propagation of important and medicinal plant.
- 8) Biochemistry and fermentation skills – like determination / estimation of MIC of Antibiotic/chemical, concentration of antibiotic and organic acid, microbiological checking of pharmaceutical products. Skill to design the laboratory process for fermentative production of organic acids, antibiotics, vitamins, alcohol etc.

9) Soil Science skills - Determination of soil pH, alkalinity and hardness of water and total organic carbon, total carbohydrates, phosphorus and nitrogen.

10) Bioinformatics – Skill of accessing database and searching for gene and protein sequences

Program Specific Outcome

On completion of the B.Sc.(Botany) students are able to:

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3. Understand the different process occurred in higher plants like photosynthesis, Respiration, Nitrogen metabolism, Transpiration, Growth etc.
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8. Create platform for higher studies in Botany

Program Specific Outcome

On completion of the B.A. (English) students are able to:

1. Students develop interest in literature.
2. Students are able to make special use of language for their expressions
3. The verbal and non-verbal skills of communication are developed.
4. Development of the comprehensive ability of students.
5. Inculcation of moral and human values among students.
6. Students could improve vocabulary.
7. Students know the culture of the time.
8. Students understand the basic concepts of literary genre, poem, prose and short stories.
9. Students' communicative skills are developed.
10. Inculcation of phonological competence among students.
11. Students are acquainted with English grammatical forms and functions

Program Specific Outcome

On completion of the M.A. (English) students are able to:

1. Students develop the stylistic competence for analyzing literary texts.
2. Students use their moral and social sense in life.
3. Students are able to accurate use of language in their respective fields.
4. Students could communicate effectively in their various business situations.
5. Students learn values through literary works'
6. Students get the knowledge of the theatre of the time.
7. Students get the knowledge of critical theories.
8. Students learn to co-relate literature to socio –political conditions of its time.

Program Specific Outcome

On completion of the B.A. (Geography) students are able to:

PSO 1 - Imbibing knowledge, skills and holistic understanding of the Earth, atmosphere, oceans and the planet through analysis of landform development; crustal mobility and tectonics, climate change and dynamics; soil formation and classification; hydrological and oceanographic studies etc.

PSO 2 – Associating landforms with structure and process; establishing man-environment relationships; and exploring the place and role of Geography vis-a-sis other social and earth sciences.

PSO 3 – Understanding the role and functioning of global economies, industrial locations; and the use and exploitation of resources with impacts.

PSO 4 – Developing a sensitive and sustainable approach towards the ecosystem and the biosphere with a view to conserve natural systems and maintain ecological balance.

PSO 5 – Inculcating a tolerant mindset and attitude towards the vast socio-cultural diversity of India by studying and discussing contemporary concepts of social and cultural geography

PSO 6 – Developing an understanding of geopolitics, global geostrategic views and functioning of political systems

PSO 7 – Analyzing the differential patterns of the human habitation of the Earth, through studies of human settlements and population dynamics.

PSO 8 – Understanding and accounting for regional disparities, poverty, unemployment and the impacts of globalization. Explaining and analyzing the regional diversity of India through interpretation of natural and planning regions.

PSO 9 – Over viewing ancient and contemporary geographical thought and its relationship with modern concepts of empiricism, positivism, radicalism, behaviouralism etc.

PSO 10 – Sensitization and awareness about the hazards and disasters to which the subcontinent is vulnerable; and their management.

PSO 11 – Training in practical techniques of mapping, cartography, software, interpretation of maps, photographs and images etc; so as to understand the spatial variation of phenomena on the Earth's surface.