

**GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)**

**KUMBAKONAM – 612 001**

*Affiliated to Bharathidasan University*

**DST - CURIE Sponsored Institution**

**IV Cycle of Accreditation**



0435 – 2401391



[principal@gwk.ac.in](mailto:principal@gwk.ac.in)



## **Programme Outcomes and Programme Specific Outcomes**

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## Criterion I: Curricular Aspects 1.1 Curriculum Design and Development

<p>Botany</p> <ul style="list-style-type: none"><li>➤ B.Sc. Botany</li></ul>	<p>History</p> <ul style="list-style-type: none"><li>➤ B.A. History</li><li>➤ M.A. History</li></ul>
<p>Chemistry</p> <ul style="list-style-type: none"><li>➤ B.Sc. Chemistry</li><li>➤ M.Sc. Chemistry</li></ul>	<p>Mathematics</p> <ul style="list-style-type: none"><li>➤ B.Sc. Mathematics</li><li>➤ M.Sc. Mathematics</li></ul>
<p>Computer Science</p> <ul style="list-style-type: none"><li>➤ B.Sc. Computer Science</li><li>➤ M.Sc. Computer Science</li></ul>	<p>Physics</p> <ul style="list-style-type: none"><li>➤ B.Sc. Physics</li><li>➤ M.Sc. Physics</li></ul>
<p>Economics</p> <ul style="list-style-type: none"><li>➤ BA Economics</li><li>➤ MA Economics</li></ul>	<p>Tamil</p> <ul style="list-style-type: none"><li>➤ BA Tamil</li><li>➤ MA Tamil</li></ul>
<p>English</p> <ul style="list-style-type: none"><li>➤ BA English</li><li>➤ MA English</li></ul>	<p>Zoology</p> <ul style="list-style-type: none"><li>➤ B.Sc. Zoology</li><li>➤ M.Sc. Zoology</li></ul>

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## **B.SC. BOTANY**

### **PROGRAMME OUTCOMES (POs)**

- PO1 Critical Thinking: Apply the knowledge of Botany to make scientific inquiries and understand about plant diversity.
- PO2 Successful transfer of scientific knowledge both orally and in writing.

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- PO3 Practical skills in the field and laboratory experiments.
- PO4 Enhance presentation skills (oral & writing) in Botany.
- PO5 Impart scientific knowledge in Botany and understand fundamental metabolism of plants.
- PO6 Impart knowledge about biodiversity, exploration, estimation and conservation.
- PO7 Develop honesty in work and respect for self and others.
- PO8 Convey and practice social, environmental and biological ethics.
- PO9 Study incessantly by self to cope with growing competition for higher studies and employment.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1 Educate students in and around Kumbakonam, a granary of South India, about plant science.
- PSO2 Inculcate strong fundamentals on modern classification aspects of Botany.
- PSO3 Build life skills in Edible mushroom cultivation, Biofertilizer production, Greenhouse maintenance and Seed technology through value-added courses.
- PSO4 Understand the nature and basic concepts of cell biology, Taxonomy and ecology.
- PSO5 Analyse the relationships among plants and microbes.
- PSO6 Provide a glimpse of Career and job opportunities.
- PSO7 Create platform for higher studies in Botany.
- PSO8 Facilitate students to take-up successful career in Botany.

## **B.SC. CHEMISTRY**

### PROGRAMME OUTCOMES (POs)

- PO 1 Provide a broad foundation of chemistry.
- PO 2 Understand the importance of elements in periodic table and its role in daily life and organize chemical information.
- PO 3 Interpret and analyze quantitative data.
- PO 4 Equip the students to face challenges in the employment domain and instil confidence to

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turn into entrepreneur, expand their knowledge, available opportunities related to chemistry in government services through exams particularly in field of food safety, health inspector, pharmaceutical industry.

PO 5 Hone their skills of handling of corrosive, poisonous, explosive and carcinogenic chemicals making themselves employable in any kind of industry.

## **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

PSO 1 Gain the knowledge of chemistry through theory and practical.

PSO 2 Understand good laboratory practices, safety and research-oriented skills.

PSO 3 Acquire the ability to synthesize, separate and characterize compounds using laboratory and instrumental techniques.

PSO 4 Demonstrate an understanding of good laboratory and handling of chemical waste and also explain the applications of chemistry to day-to-day life.

PSO 5 Competency for competitive exams.

## **M.SC. CHEMISTRY**

### **PROGRAMME OUTCOMES (POs)**

PO 1 To impart qualitative and quantitative analytical knowledge in Chemistry.

PO 2 Enhance proficiency in advance level of Chemistry.

PO 3 Carryout experiments in the area of organic analysis, estimation, separation, derivative process, inorganic semi micro analysis, preparation, conductometric and potentiometric titrations.

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- PO 4 Improve career prospects (Inter and intra disciplinary) & enrich individual skills (such as analytical reasoning, critical thinking, problem solving).
- PO 5 Explore new areas of research.
- PO 6 Explain the integral activity of chemistry for addressing social, economic, environmental issues, energy deficiency, human health and medicine.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1 Have sound knowledge about the fundamentals of chemistry and its applications on various fields.
- PSO2 Will become familiarize with different areas of chemistry.
- PSO3 Acquire an ability to synthesize, separate and characterize compounds using laboratory and instrumental techniques.
- PSO4 Understand the causes of environmental issues and its controlling measures.
- PSO5 To motivate the students to appear for CSIR-NET so that they take up research opportunities at global level.
- PSO6 Create job opportunities at all levels of chemical, pharmaceutical, food products, life-oriented material industries.

## **B.COM**

### PROGRAMME OUTCOMES (POs)

- PO1 Impart expertise so that students can prove themselves in different professional exams like C.A., C.S, CMA, MPSC, UPSC etc.
- PO2 Apply knowledge of business concepts and functions in an integrated manner.
- PO3 Become familiar with business regulatory framework.
- PO4 Develop entrepreneurial ability.
- PO 5 Promote the ability to work as an individual as well as in team.

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## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1 Acquire the knowledge, skills in different areas like accounting, communication, decision making, innovations and problem solving in day-to-day business activities.
- PSO2 Students will gain thorough knowledge of Finance, Auditing, Taxation, Accounting and Management.
- PSO3 Students can also obtain practical skills to work as an accountant, audit assistant, tax consultant, and in other business supporting services.
- PSO4 Develop the skills of various techniques used in business.
- PSO5 Develop thorough knowledge of accounting of an organization.

## **M.COM**

### PROGRAMME OUTCOMES (POs)

- PO1 Integrate all the areas of business activity in an attempt to develop the most reliable strategies that successfully achieves the objectives of a business.
- PO2 Provide employment opportunity in any business enterprise and hence obtain success in the competitive job market.
- PO3 To give a glimpse of research in the field of finance and commerce.

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PO4 Enhance entrepreneurial ability.

PO5 Acquire technical and decision-making skills in the areas of accounting, taxation and portfolio analysis.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1 Provide in-depth understanding of all core areas like Accounting, Management, Security market, Business Environment, Research Methodology and Planning.

PSO2 Comprehend the concepts and applications of business in the areas related to Finance, Marketing, Entrepreneurship, Human Resource Management.

PSO3 Explore applications of Finance tools in Project and in Real time business decision making.

PSO4 Use Statistical tools in behavioral research.

PSO5 Develop the skills of various techniques used in business and in research.

## **B.SC. COMPUTER SCIENCE**

### PROGRAMME OUTCOMES (POs)

PO 1 Ability to apply knowledge of Computer Science to analyze problems with strong knowledge of practical and theoretical concepts and to provide effective solutions.

PO 2 Identify, analyze and formulate solutions to computing problems and compare alternative solutions to computing problems.

PO 3 Ability to apply, design and develop principles in the implementation of software systems.



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- PO 4 Adapt to latest trends in the IT industries.
- PO 5 To provide sound academic knowledge in technical, analytical and creative skills and also gain new ideas to get employability and self-employment.
- PO 6 Recognize the social and the Ethical responsibilities of a professional working in the discipline.
- PO 7 Participate in life-long learning to enhance knowledge and skills necessary to contribute to the betterment of profession.

## **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

- PSO 1 Impart an understanding of fundamental, theoretical and practical knowledge in the domain of Computer Science.
- PSO 2 Ability to use current technologies and tools for programming practically.
- PSO 3 Ability to apply, design and develop principles in the implementation of software systems.
- PSO 4 Entrusting students with building a career in the field of IT by offering the latest technologies.
- PSO 5 Recognize the social and the ethical responsibilities of a professional working in the discipline.
- PSO 6 Apply problem solving skills and the knowledge of computer science to solve real-world problems.
- PSO 7 Impart employability and entrepreneurship skills.

## **M.SC. COMPUTER SCIENCE**

### **PROGRAMME OUTCOMES (POs)**

- PO 1 To impart knowledge of a broad range of computer science skills, tools and mathematical techniques, and the capability of applying them to analyze and design complex problems.
- PO 2 Design and develop computer programs/computer based systems in the field of computer science.
- PO 3 To develop research and development activity along with academics.

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- PO 4 A strong foundation to pursue higher education in the field of teaching and research.
- PO 5 Gain analytical skills in the area of computer science for research fellowship and Lectureship.
- PO 6 To provide sound academic knowledge, technical, analytical and creative skills.
- PO 7 Helps the students to adapt to recent trends in IT Industries.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO 1 To make them understand fundamental, theoretical and practical concepts.
- PSO 2 Ability to use current technologies and tools for programming practically.
- PSO 3 Ability to apply, design and develop principles in the implementation of software systems.
- PSO 4 Entrusting students with building their career in the field of IT by providing them with the latest technologies.
- PSO 5 Impart expertise to the students to develop major projects.
- PSO 6 Provide orientation to take up research.

## **BA ECONOMICS**

### PROGRAMME OUTCOMES (POs)

- PO 1 To provide in-depth understanding of theories and models used in the subject of Economics and also expose the students to practical aspects.
- PO 2 To impart an understanding of economic structure, recent trends in Economics to develop a logical thinking.
- PO 3 To understand thrust areas of research in the field of Economics to enable the students to take up empirical and policy-oriented research.

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- PO 4 To equip the students with managerial and entrepreneurial skills for self employment.
- PO 5 To prepare the students to have exposure on examinations for administrative positions and specialized research.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO 1 Gain knowledge and skills on the fundamentals of economic theories and models.
- PSO 2 Develop research-oriented knowledge in Economics.
- PSO 3 Develop the skills of data collection and use of sampling techniques in research.
- PSO 4 Gain knowledge of entrepreneurial skills for self employment, agro based cottage industries like bee keeping, mushroom etc.,
- PSO 5 To impart skills and necessary training to initial start-ups within the realm of economic policy.

## MA ECONOMICS

### PROGRAMME OUTCOMES (POs)

- PO 1 Entire study of discipline.
- PO 2 Mastery of subject knowledge.
- PO 3 Mature personality for employability.
- PO 4 Skills of self – employment.
- PO 5 Ability to work / serve.

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- PO 6 Critical thinking.
- PO 7 Sense of creativity.
- PO 8 To give a glimpse of areas of research.
- PO 9 Interview technique, team spirit.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO 1 To impart in depth knowledge to students about economic theory regarding utilization and allocation of resources including labour, natural resources and capital.
- PSO2 To develop an understanding of how market for goods and services function and how income is generated and distributed.
- PSO3 To give students an in depth knowledge into special fields of choice like agricultural economics, industrial economics, financial market, developmental economics, international trade, urban economics and economic statistics.
- PSO4 To make students familiar with economic theories and their relevance to apply statistics in various fields of economics.
- PSO5 To understand how the Students would know how the economy is influenced by technological advances and demographic conditions.

## **B.A ENGLISH**

### PROGRAMME OUTCOMES (Pos)

- PO1 Acquire knowledge to deal with various problems in life courageously and confidently.
- PO2 Enhance the overall personality and capacity to think creatively, critically, and sensibly with compassion.
- PO3 Help to pursue Master's degree .
- PO4 Give them eligibility to appear for Competitive Examinations at the State and Central level.

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- PO5 Secure a decent job in private organizations.
- PO6 Give empowerment to women.
- PO7 Ability to engage in independent and lifelong learning.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1 Inculcate the aesthetic sense in young minds and appreciate a good piece of literature.
- PSO2 Help students to explore the entire range of human experience through Fiction, Poetry, Non-Fiction, Prose and Drama.
- PSO3 Acquire a thorough knowledge of various concepts or types of literary forms, Criticism and Theory.
- PSO4 Acquire overall linguistic competence and communication skills.
- PSO5 Compare literary works of great writers and philosophers by using literary competency.
- PSO6 Convey clearly specialized information from a technical audience to a non-specialized audience.
- PSO7 To train students on various aspects of business communication like preparing e-mail, agenda, circular, business letters, news reports, academic articles, oral presentations, preparation of charts and drafts with brevity and clarity.
- PSO8 Understand the pattern of English questions for Competitive Examinations and equip them to answer confidently.
- PSO9 Acquire skills in teaching English as a Second Language at secondary level.
- PSO10 Acquire the skills required to translate a text.

## **M.A ENGLISH**

### PROGRAMME OUTCOMES(POs)

- PO1 In depth knowledge of the subject and gain mastery over it.
- PO2 Facilitate research in the respective subject.

### PROGRAMME SPECIFIC OUTCOMES (PSOs)

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- PSO1 To impart expertise in literary history, literary theory, criticism and rhetoric and apply them in research discussion and data interpretation.
- PSO2 Acquire the skills of systematic research and write research projects and articles.
- PSO3 Gain critical and analytical skills in interpretation and evaluation of literary texts.
- PSO4 Gain insight into different cultural history and tradition.
- PSO5 Gain knowledge about the historical development of language, grammar and different branches of linguistics.
- PSO6 To impart a knowledge on the varieties of English language.
- PSO7 Give them an opening in print and visual mass media.
- PSO8 Enable the students to clear NET, SET, PGTRB and Pre-Ph.D. Registration Test.
- PSO9 Acquaint them with recent developments in language and literature.
- PSO10 Obtain adequate information on colonization and postwar consequences through literature.
- PSO11 Indicate how theories find application in the works of significant authors.

## B.SC. GEOGRAPHY

### PROGRAMME OUTCOMES (POs)

- PO1 Create a balance between sustainable development of Human Resource and various needs of society.
- PO2 Exposure to new techniques in Geography.
- PO3 Gain knowledge about the acquisition of data based on quantitative and qualitative techniques.
- PO4 Acquire proficiency to clear competitive exams like UPSC and TNPSC.
- PO5 Understand different resources in the Regional, Local and Global levels.

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PO6 Gain knowledge about the basic skills of Map making.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1 Students will be able to use the scientific method including critical thinking, sampling, hypothesis formulation and testing, and controlled experimentation to assess environmental problems, and be able to effectively communicate research objectives, methodology, results, interpretations, and conclusions in oral and written formats.
- PSO2 Students will have a general understanding of physical geographic processes, the global distribution of landforms and ecosystems, and the role of the physical environment on human population.
- PSO3 Students will be able to think in spatial terms to explain what has occurred in the past as well as using geographic principles to understand the present and plan for the future.
- PSO4 Students will have a general understanding of the various theoretical and methodological approaches in both physical and human geography and be able to develop research questions and critically analyse both qualitative and quantitative data.
- PSO5 Develop an idea about different types of Mapping Techniques.
- PSO6 Develop an idea about different types of scales, map projections, identifications of rocks and minerals, diagrammatic representation of data, types of surveying instruments.
- PSO7 Interpretation of ariel photographs, satellite images, Indian toposheets and Indian daily weather report.

## **M.SC. GEOGRAPHY**

### PROGRAMME OUTCOMES (POs)

- PO1 Understand the unifying themes of both human and environment interactions.
- PO2 Provide working knowledge of the discipline in diversifying fields.
- PO3 Interpret the results via written, Oral, Graphical, Geospatial maps and Quantitative means.
- PO4 Impart expertise so that students can clear in competitive exams like UPSC, NET, SET and TNPSC.

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## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1 Apply knowledge of global issues to a unique scientific problem.
- PSO2 Evaluate and apply geographic methods and associated theories to analyses advance Geographic concepts.
- PSO3 Analyse the problems of physical as well as cultural environments of both rural and urban areas and find solutions.
- PSO4 Create an awareness and responsibility for the environment.
- PSO5 Demonstrate proficiency using Geographical Research tools including spatial statistics, Cartography, Remote sensing, GIS and GPS.
- PSO6 Learn the application of various modern instruments and collect data.
- PSO7 Develop an idea about different types of Mapping Techniques.

## **BA HISTORY**

### PROGRAMME OUTCOMES(POs)

- PO1** Acquire knowledge in the field of social sciences, literature and humanities which will make the students sensitive and sensible enough.
- PO2** Acquaint with the social, economical, historical, geographical, political, ideological and philosophical tradition and thinking.
- PO3** Empower the graduates to appear for various competitive examinations or choose the post graduate programme of their choice.
- PO4** Enable the students to acquire the knowledge with human values to deal with various



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problems in life with courage and humanity.

**PO5** Impart adequate logical and analytical thinking to look for the solution of various issues in the life of human beings to make the world a better place to live.

**PO6** Provide students with an awareness regarding Civil and Legal Rights.

## PROGRAM SPECIFIC OUTCOMES(PSOs)

**PSO1** Understand the basic themes, concepts, chronology and the scope of Indian History.

**PSO2** Understand the existing social, political, religious and economic conditions of the people.

**PSO3** Develop interests in the study of history and activities relating to history like visiting archaeological sites, museum, collecting old coins etc.,

**PSO4** Promote the skills required for the students to appear for career oriented competitive examinations.

**PSO5** Understand the history of countries other than India with comparative approach.

**PSO6** Enable the students to choose a career in education as a school teacher.

**PSO7** Disseminate the knowledge of various religious administrative, executive and revolutionary ideologies.

**PSO8** Understand Art and Architectural glory of India.

**PSO9** Compare the role of various rulers, leaders, reformers and constitution for the development of administration, society and culture through the ages.

## **M.A HISTORY**

### PROGRAMME OUTCOMES(POs)

**PO1** To understand the connectivity between the past and the present History of India and Tamil Nadu.

**PO2** Create an awareness on research through collection of data, inquiry, classification of data etc.,

**PO3** Understand the significance of the role of Science and Technology in the process of modernization.

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**PO4** Promote the skills like critical thinking and objective understanding for becoming a Scientific historian.

**PO5** Comprehend the lives of great intellectuals of India and the state to imbibe characters and virtues that have enabled them to become leaders.

**PO6** To appear for TNPSC, UPSC and NET, SET Examinations.

## PROGRAMME SPECIFIC OUTCOMES(PSOs)

**PSO1** Understand and evaluate the complexities of historical developments of various nations, societies, and cultures.

**PSO 2** Acquaint with research skills, methodologies, philosophy of history and historiography as being professional historian and researcher.

**PSO 3** Enable the students to choose a career in education as a school teacher or collegiate professor.

**PSO 4** Develop the feeling of patriotism and Nationalism.

**PSO 5** Provide the students with ample opportunities to build their careers.

**PSO 6** Focus on the students to prepare for Competitive Examinations .

**PSO 7** Observe the Historical sources of India and Tamil Nadu.

**PSO 8** Understand the origin and growth of the Empire in India and Tamil Nadu.

**PSO 9** Acquire knowledge in the latest technological tools for their research and career work.

## **B.SC., MATHEMATICS**

### PROGRAMME OUTCOMES (POs)

**PO1** Develop the knowledge of Mathematics in problem solving, planning and ability to learn new information.

**PO2** Inculcate the habit of active listening and identify the strategy for solving the problems.

**PO3** Have practical exposure which equips the students to face modern day challenges in the

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relevant discipline.

- PO4 Exhibit proficiency in arriving at innovation-based knowledge, information to provide valid conclusion.
- PO5 Educate the students to develop their skills for employability.
- PO6 Create, select and apply decision making in research.
- PO7 Communicate effectively on various activities and make effective presentations.
- PO8 Promulgate the ability to learn Mathematics with high moral and ethical values.
- PO9 Formulate profound ability to pursue higher education at global level.
- PO10 Grow civic responsibilities, personality traits and human values through interaction with society.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1 Communicate mathematics effectively by written, computational and graphical means.
- PSO2 Demonstrate in-depth knowledge of Mathematics, both in theory and applications.
- PSO3 Exhibit in depth knowledge in analytical and critical thinking to identify, formulate and solve problems in the field of Science and Engineering.
- PSO4 Take up Mathematics programme at Master's level anywhere inside and outside India.
- PSO5 Gain a thorough knowledge in preparing for competitive examinations conducted by TNPSC/UPSC/BSRB.

## **M.SC. MATHEMATICS**

### PROGRAMME OUTCOMES (POs)

- PO1 Demonstrate an understanding on the foundations and history of Mathematics.
- PO2 Elaborate on the unifying structure of Mathematics.
- PO3 Gain exposure to related areas of Mathematics and other fields.
- PO4 Become involved with professional organizations in gaining insight into future

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employment prospects and establishing professional contacts.

- PO5 Disseminate mathematical ideas both in writing and orally.
- PO6 Enable the students to acquire manipulative skills of algebra, geometry, trigonometry and calculus.
- PO7 Facilitate the students to communicate ideas effectively and to digest information and concepts independently.
- PO8 Investigate and apply Mathematical problems and solutions in a variety of contexts related to Science and Technology and illustrate these solutions using symbolic, numeric, graphical methods.
- PO9 Impart expertise so that the students will be able to compete at the national, and international level competition.
- PO10 Communicate scientific information and results.

## **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

- PSO1 Have a strong foundation in core areas of Mathematics (both pure and applied).
- PSO2 Gain the Ability to understand and deal with abstract concepts.
- PSO3 Develop written and oral communication skills in order to effectively communicate, design and analyse the results.
- PSO4 Use scientific symbolic computing software and demonstrate in the lab.
- PSO5 Gain a thorough knowledge in preparing themselves for the CSIR, NET and SET Examinations.
- PSO6 Take up any project from the fields of Science, Technology, Business and Industry.

## **B.SC., PHYSICS**

### **PROGRAMME OUTCOMES (POs)**

- PO1 Exposure to basic concepts of physical sciences with an eye on their higher studies.
- PO2 Design of the curriculum to enable the students to take up higher education in diversified areas of science.
- PO3 Design of the curriculum to enhance basic, analytical, technical /experimental and

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creative skills.

- PO4 Syllabus has been framed to understand /acquire basic / appropriate tools/ techniques /equipments and correlate them with day-to-day life.
- PO5 Framework of the curriculum encompasses ethical values, social responsibility, leadership skills/entrepreneurial skills/internship/employability skills.
- PO6 Curriculum design to identify emerging areas of Science and Technology.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1 Understand the basic principles of physics and relate them with applications in the domain of properties of Matter, Mechanics, Optics, Thermodynamics, Electricity and Magnetism, Atomic and Molecular, Nuclear, Solid-State Physics and Electronics.
- PSO2 Relate theory and applications, harness new ideas related to physics and allied sectors and contribute to multidisciplinary and interdisciplinary domains.
- PSO3 Create scientific temperament and inquisitiveness and an awareness of the impact of Physics on the environment, society and development outside the scientific community.
- PSO4 Summarize interdisciplinary relationship between the concepts of physics with chemistry and mathematics representing multiple representation of scientific information.
- PSO5 Adopt the concepts of Physics / Electronics to design simple physical models / Electronic devices.

## MSC. PHYSICS

### PROGRAMME OUTCOMES (POs)

- PO1 Knowledge Development.
- PO2 Employability skills.
- PO3 Developing new projects and designs.
- PO4 Experimental Skills.
- PO5 Grooming the candidates to explore knowledge independently.
- PO6 Design and conduct of demos/create models to analyze/interpret data.
- PO7 Acquire the expertise to solve any dynamical system.
- PO8 Develop skills to contribute to R&D.
- PO9 Groomed to collate information from different sources and gain coherent understanding

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of the subject.

- PO10 Groomed to become professionally competent to develop independent thinking.
- PO11 Inculcate the skills to exploit learning resources including libraries, e-resources etc.to stay abreast of recent developments.
- PO12 To help the students accomplish tasks either individually or as member of a group in multidisciplinary settings.
- PO13 Framing of the curriculum, to inculcate ethical values, social responsibility, professional competence, pragmatic wisdom, commitment to nation in the area of Science and Technology.

### **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

- PSO1 Problem solving skills.
- PSO2 Learn basics of core and applied physics.
- PSO3 Exposure to classical, quantum, mathematical, statistical, condensed matter, electromagnetic theory and nuclear physics.
- PSO4 Specialized understanding of advanced topics like Nonlinear Dynamics, Crystal growth, Thin films and Nano materials.
- PSO5 Expertise to develop coding skills and numerical simulation.
- PSO6 Developing extra disciplinary/interdisciplinary skills to understand natural phenomena.
- PSO7 Research aptitude towards experimental and theoretical physics.
- PSO8 Explore avenues of research in Institute of Plasma Research (IPR),Physical Research Laboratory(PRL),Institute of Physics (IOP),Saha Institute of Nuclear Physics(SINP), Raman Research Institute(RRI), IISc,IISER,CECRI,etc.
- PSO9 To impart expertise to enable the students to characterize materials and understand their properties.

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## PROGRAMME OUTCOMES (POs)

- PO1 மொழி மற்றும் இலக்கியம் சார்ந்த ஆழ்ந்த அறிவைப்பெற உதவுகிறது.
- PO2 மொழியறிவைப் பெற்ற மாணவிகள் பல்வேறு ஊடகத்துறைக்கு செல்லும் வாய்ப்பைப் பெறுகின்றனர்.
- PO3 இளங்கலை பயின்ற மாணவிகள் கலைகள் தொடர்பான பாடங்கள் மூலம் தங்கள் திறனை மேம்படுத்திக் கொண்டுள்ளனர். (பறையிசை, நாடகத்திறன் மேம்பாடு முதலியன).
- PO4 இலக்கியத்தின் தன்மைகளைப் புரிந்து கொண்டு புதியன படைக்கும் திறனைப் பெற்றுள்ளனர்.
- PO5 மாணவிகளின் தனித்தன்மைகளை கண்டறிந்து வளர்த்துக்கொள்ள பாடத்திட்டம் உதவுகிறது.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1 தமிழ் இலக்கிய இளங்கலைப் பாடத்திட்டங்கள் உயர்கல்வி பயிலப் பயன்படுகிறது.
- PSO2 இளங்கலைப் பாடத்திட்டத்தை தொடர்ந்து பட்ட மேற்படிப்பைத் தொடர்வதற்குப் பயன்படுகிறது.
- PSO3 இளங்கலைப் பாடத்திட்டம் தமிழ் இலக்கிய வகைகளின் அடிப்படைத் தன்மைகளைத் தெரிந்து கொள்ளப் பயன்படுகிறது.
- PSO4 இப்பாடத்திட்டம் மாணவர்களின் மொழியறிவை மேம்படுத்தப் பயன்படுகிறது.
- PSO5 சமூக நீதிகளையும், சமூக அக்கறை, தலைமைப்பண்பு, ஆளுமைத்திறன், சமூக இணக்கம், வேலைவாய்ப்பு ஆகியக் கூறுகளை இப்பாடத்திட்டத்தின் வழி அறியலாம்

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## PROGRAMME OUTCOMES (POs)

- PO1** முதுகலைப் பாடம் பயின்ற மாணவிகள் ஆராய்ச்சிப் படிப்பை மேற்கொள்கின்றனர்.
- PO2** முதுகலைப் பாடத்திட்டம் மானுடத்தின் வளர்ச்சி பற்றிய அறிவை வழங்குகிறது.
- PO3** பாடத்திட்டத்தின் வழி கலைகள் பற்றிய தெளிவைப் பெறுகின்றனர்.
- PO4** ஊடகவியல் துறைக்குச் செல்ல வேண்டிய அறிவுத்தெளிவை முதுகலைப் பாடத்திட்டம் வழங்குகிறது.
- PO5** ஊடகவியல் துறைக்குச் செல்ல வேண்டிய அறிவுத்தெளிவை முதுகலைப் பாடத்திட்டம் வழங்குகிறது.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1** மொழியின் கட்டமைப்பு, பயன்பாடு, வளர்ச்சி முதலியவற்றை ஆய்வு செய்தல்.
- PSO2** நாகரிகம், பண்பாடு, கலை, கலாச்சாரம் முதலியவற்றின் வேர்களையும் காலத்திற்கேற்ப மாறுபாடுகளையும் ஆய்வு ரீதியாகத் தெரிந்து கொள்ளல்.
- PSO3** சங்க காலம் முதல் நடப்பியல் வரையிலான நவீன இலக்கிய வடிவங்களையும் பொருண்மைகளையும் தெரிந்து கொள்ளல்.
- PSO4** ஊடகம், நவீன தொழில்நுட்பங்கள் வாயிலாக இலக்கியத்தைப் பயன்படுத்துதல் பற்றி அறிந்து கொள்ளல்.
- PSO5** வேலைவாய்ப்பு தொடர்பான போட்டித் தேர்வுகளுக்குத் தயார்படுத்துதல்.
- PSO6** அறிவியல் அணுகுமுறையில் வேற்றுமொழி இலக்கிய வளங்களை மாணவர்களை அறிந்து கொள்ளச் செய்தல்.

## **B.SC. ZOOLOGY**

### PROGRAMME OUTCOMES (POs)



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- PO1 Obtain functional knowledge of the fundamental, theoretical concepts and experimental methods in science.
- PO2 Develop skills critically to reflect upon the theory they learn.
- PO3 Extend and understand the impact of science on society.
- PO4 Inculcate the ability to engage in life-long learning to improve professional competency.
- PO5 Apply their professional ability for entrepreneurship and self-employment.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

- PSO1 Gain knowledge and skills in the fundamentals of animal science, understand the complex interactions among various living organisms.
- PSO2 Analyze complex interactions among various animals of different phyla, distribution and their relationship with the environment.
- PSO3 Understand and apply the knowledge of internal structure of cell, its functions in controlling various metabolic functions of organisms, the complex evolutionary processes and behaviour of animals.
- PSO4 Understand the functioning of immune system and its interaction with pathogens, allergens and organ transplants.
- PSO5 Correlate the physiological processes of animals and its relationship with organ systems.
- PSO6 To impart an understanding of environmental conservation processes, and its importance, pollution control, biodiversity and protection of endangered species.
- PSO7 Perform laboratory experiments as per standard protocols in the area of Biology.
- PSO8 Gain knowledge of Agro based small-scale industries like sericulture, fish farming and vermicompost preparation.
- PSO9 To impart skills and necessary training to initiate start-ups within the realm of life sciences.

## **M.SC. ZOOLOGY**

### PROGRAMME OUTCOMES (POs)

- PO1 Impart interest in learning the concepts of life sciences.

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- PO2 Develop analytical, communication and professional skills.
- PO3 Will help to improve the technical skills for experimental purposes.
- PO4 Impart the ability to adopt scientific methods and hypothesis testing in designing and execution of experiment.

## **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

- PSO1 Develop understanding of key concepts of biology at biochemical, molecular and cellular level.
- PSO2 Observe and understand animal-animal, animal-plant, animal-microbe interactions and their consequences to animals, humans and the environment and its impact on complex evolutionary processes.
- PSO3 The principles of Genetics in the light of advancements in understanding human genome and genomes of other model organisms are strengthened. This enables the students to apply their knowledge in Genetics to understand human traits and genetic disorders.
- PSO4 Imparts the learning of expression of genome revealing multiple levels of regulation and strategies to manipulate it for the benefit of mankind.
- PSO5 Learning, handling DNA sequence data and its analysis to equip the students to get employed in R&D in the industry involved in DNA sequencing services, diagnostics, and microbiome analysis.
- PSO6 Impart an understanding of zoological science for its application in medical entomology, agriculture-based practices like apiculture, aquaculture, and modern medicine provides employment opportunities and entrepreneurial skills.
- PSO7 Develop theoretical and practical knowledge in handling the animals and using them as model organism.
- PSO8 To impart expertise to enable the students to characterize material and understand their properties.