



**SAFI INSTITUTE OF ADVANCED STUDY (SIAS)**

# **PROGRAMME SPECIFIC OUTCOMES (PSO)**

**INTERNAL QUALITY ASSURANCE CELL  
(IQAC)**



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## **PG PROGRAMMES**

### **M. Sc. FOOD SCIENCE AND TECHNOLOGY**

#### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** They demonstrate in-depth knowledge of the scientific foundations of the disciplines in engineering and the natural sciences that constitute the field of food technology

**PSO2** They demonstrate an ability to analyze both complete systems and the constituent parts of the industrial manufacture of food products

**PSO3** They demonstrate an insight into how different sub-systems co-operate with each other

**PSO4** They demonstrate an insight into current research and development in the field

**PSO5** They demonstrate enterprising skills

**PSO6** They demonstrate an ability to identify, formulate and treat complex issues in the field of food technology from a holistic perspective and in an independent manner

**PSO7** They able to analyze and evaluate critically various technical solutions in the field

**PSO8** They demonstrate an ability to be able to participate in research and development projects in food technology

**PSO9** They demonstrate an ability to acquire new knowledge in the field and to integrate this with existing knowledge

**PSO10** They demonstrate an ability to plan and execute advanced assignments in the field in an independent manner

**PSO11** They demonstrate an ability to develop and design industrial food product systems and processes with regard to human needs and conditions, and the goals of society both local and global, for sustainable development

**PSO12** They demonstrate an ability to give a clear account of his/her level of knowledge and various types of project work, both orally and in writing, in an international context

**PSO13** They demonstrate an ability to make judgments with regard to relevant scientific, social and ethical aspects in the field

**PSO14** They demonstrate an ability for working in a team and for cooperation with variously constituted groups

**PSO15** They demonstrate an ability to identify his/her need of further knowledge in the field and continuously deepen

**PSO16** Demonstrate practical proficiency in a food analysis laboratory



## **M. Sc. GENERAL BIOTECHNOLOGY**

### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Acquire knowledge relevant to Biotechnology from Modern Biology courses.

**PSO2** Identify the Biotechnological components required to satisfy the Human needs

**PSO3** Apply Biotechnology for the large-scale exploration in healthcare, agriculture, environment and industry.

**PSO4** Able to access social, environmental, public safety and health implications of Biotechnology practices.

**PSO5** Appreciate difference between technologies adopted by Biotechnology over the other technologies

**PSO6** Perceive research and development or biotechnology based industrial venture as a carrier option.

## **M. Sc. MICROBIOLOGY**

### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Gain in-depth understanding of various aspects of microbiology pertaining to medical, agricultural, environmental and industrial applications.

**PSO2** Familiarized with latest and advanced research tools and techniques pertaining to biology.

**PSO3** Analysis of scientific issues across the spectrum of related disciplines.

**PSO4** Acquire skills specific to microbiology and allied fields for converting information to knowledge through hypothesis, design, execution and analysis.

**PSO5** Design experiments to prove scientific process and to synthesize product/ services for the benefit of community.

**PSO6** Ability to retrieve biological information through data mining and data handling.

**PSO7** Ability to present their work through written, oral, and visual presentations, including an original research proposal.

**PSO8** Enable the students to improve the quality of human lives in relation to environment with the knowledge in microbiology.

**PSO9** Capacity to work as a member of team upholding the essence of collaboration, cooperation, ethics and integrity.

**PSO10** Ability to upgrade knowledge independently and act upon means of improvement for lifelong learning.

## **M.A. ISLAMIC FINANCE**

### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Principles of Islam from the basic and fundamental perspective

**PSO2** Overview of Islamic history and civilization

**PSO3** Over all understanding different Muslim sects, and their origin, development and fundamental doctrine

**PSO4** Over all understanding of modernity and Islam

**PSO5** Islamic views regarding politics, economics and protection of environment

**PSO6** Impact of west on Islam and Islamic world

**PSO7** Comparison if world religions to understand the similarities and differences.

**PSO8** Islamic concept of pluralism and co-existence with different religions.

## **U G PROGRAMMES**

### **B. Sc. BIOTECHNOLOGY**

#### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Acquire basic knowledge about fundamentals of Biotechnology programme

**PSO2** Understand the technological components in Biotechnology after acquiring basics of classical science and engineering

**PSO3** Apply the Biotechnology for the large-scale exportation in healthcare, agriculture, environment and industry.

**PSO4** Analyse the basic problems that can be addressed by biotechnology

**PSO5** Appreciate difference between technologies adopted by Biotechnology over the other technologies

**PSO6** Perceive the option of higher studies in the specific area or in a biotechnology based industrial venture.

## **B. Sc. FOOD TECHNOLOGY**

### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** They will demonstrate knowledge of Food Chemistry, Food Microbiology, Food science and Food engineering.

**PSO2** They will demonstrate an ability to identify, formulate and solve processing problems related to food sector/industry.

**PSO3** They will able to focus on the importance of safe processed nutritious food.

**PSO4** They will be get exposure to various technologies aspect of Food product preparation.

**PSO5** They will demonstrate an ability to design or process food products as per the needs and specifications.

**PSO6** They will demonstrate an ability to work in Food industries, research organization and teaching.

**PSO7** They will demonstrate skills to use modern tools and equipment to analyse food prone infection and food spoilage.

**PSO8** They will demonstrate knowledge of professional and ethical responsibilities.

**PSO9** They will be able to understand economic importance of food products and food laws.

**PSO10** They will show the understanding of impact of technological solutions on the society and also will be aware of contemporary issues.

**PSO11** They will develop confidence for self-education and ability for life-long learning.

## **B. Sc. COMPUTER SCIENCE AND APPLICATION**

### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Demonstrate the aptitude of Computer Programming and Computer based problem solving skills.

**PSO2** Display the knowledge of appropriate theory, practices and tools for the specification, design, implementation

**PSO3** Ability to learn and acquire knowledge through online courses available at different massive open online course providers.

**PSO4** Ability to link knowledge of Computer Science with other two chosen Complementary disciplines of study.

**PSO5** Display ethical code of conduct in usage of Internet and Cyber systems.

**PSO6** Ability to pursue higher studies of specialization and to take up technical employment.

**PSO7** Ability to formulate, to model, to design solutions, procedure and to use software tools to solve real world problems and evaluate.

**PSO8** Ability to operate, manage, deploy, configure computer network, hardware, software operation of an organization.

**PSO9** Ability to present result using different presentation tools.

**PSO10** Ability to appreciate emerging technologies and tools.

## **B. Sc. PHYSICS**

### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Understand the basic concepts of fundamentals of mechanics, properties of matter and electrodynamics

**PSO2** Understand the theoretical basis of quantum mechanics, relativistic physics, nuclear physics, optics, spectroscopy, solid state physics, astrophysics, statistical physics, photonics and thermodynamics

**PSO3** Understand and apply the concepts of electronics in the designing of different analogue and digital circuits

**PSO4** Understand the basics of computer programming and numerical analysis

**PSO5** Apply and verify theoretical concepts through laboratory experiments

## **B. Sc.PSYCHOLOGY**

### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Understand the different fields of Psychology

**PSO2** Acquire basic Theoretical knowledge and practical applications it in different fields of Psychology

**PSO3** Learn anatomical and physiological aspects of Human Behaviour

**PSO4** Laboratory experience make them equipped to use basic Psychological Tests and experiments

**PSO5** Enhance Critical thinking of students to relate with current needs of the society in the area of mental Health

**PSO6** Develop scientific mind to apply the theoretical knowledge on different disorders and understand the practical application of Psychotherapeutic management during post graduate levels

**PSO7** Acquire basic skills to conduct Research work in Psychology using statistical knowledge

**PSO8** Analyse one's own psycho-social development towards personal, academic, and professional growth.

**PSO9** Choose a Master's Program in Psychology according to their aptitude and interest.

## **B. Sc. MICROBIOLOGY**

### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Gain integrated knowledge on different aspects of microbiology, biochemistry, biostatistics and computer applications bioinformatics and emerging worldwide microbiological technologies, issues, and perspectives.

**PSO2** Acquire skills specific to microbiology and allied fields for converting information to knowledge through hypothesis, design, execution and analysis.

**PSO3** Analysis of scientific issues across the spectrum of related disciplines.

**PSO4** Enable the students to improve the quality of human lives in relation to the environment with the knowledge in microbiology.

**PSO5** Capacity to develop, employ and integrate technical and professional skills as a member of a team upholding the essence of collaboration, cooperation, ethics and integrity.

# **BACHELOR OF COMPUTER APPLICATIONS**

## **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Demonstrate the aptitude of Computer Programming and Computer based problem solving skills.

**PSO2** Display the knowledge of appropriate theory, practices and tools for the specification, design, implementation

**PSO3** Ability to learn and acquire knowledge through online courses available at different massive open online course providers.

**PSO4** Ability to link knowledge of Computer Science with other two chosen Complementary disciplines of study.

**PSO5** Display ethical code of conduct in usage of Internet and Cyber systems.

**PSO6** Ability to pursue higher studies of specialization and to take up technical employment.

**PSO7** Ability to formulate, to model, to design solutions, procedure and to use software tools to solve real world problems and evaluate.

**PSO8** Ability to operate, manage, deploy, configure computer network, hardware, software operation of an organization

**PSO9** Ability to present result using different presentation tools.

**PSO10** Ability to appreciate emerging technologies and tools.

## **B. Com**

### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** The students will get new ideas, insights and thoughts. The mind set of students will change. They get new ideas and practical experience. Such students can face challenges with confidence and succeed in life.

**PSO2** The students will be thorough with the procedures and formalities of establishment and management of business units. As all aspects are well debated, it will be easy for them to establish and successfully run business units.

**PSO3** The students will be conversant with the various accounting principles and practices. All will be capable of recording, generating financial reports and arriving at conclusions and predictions.

**PSO4** The inter-disciplinary approach will help students to solve business issues easily and will emerge as successful entrepreneurs in future.

**PSO5** The multidisciplinary in-depth learning across all related topics of business and industry will definitely pave a strong foundation for higher learning in commerce and management.

**PSO6** In depth understanding of management principles will help to create managerial aptitude and skills in students will foster successful managers for future.

**PSO7** In depth understanding of Accounting principles and practices coupled with interdisciplinary learning will help to create newer ideas in accounting and will bring in innovative and creative professionals in Finance, Cost and Management.

**PSO8** The knowledge of direct and indirect taxation will open up a new area of living by students. Information on both direct and indirect taxation systems will cut open a wider area of employment and professionalism.

**PSO9** The improved communication skills and basic understanding of laws in force of the country will definitely add to the content level and level of interaction by students.

**PSO10** Students become more confident, self-reliant, competent and Competitive with practical insights and thorough learning.

## **B.A. ECONOMICS**

### **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Students critically evaluate and apply the theories and techniques of economics.

**PSO2** Students demonstrate subject-specific „thinking“ skills that are readily transferable to problem solving and decision making in a wider context.

**PSO3** Students develop interest for lifelong learning, employing a range of practical and professional skills.

**PSO4** Student find, evaluate, synthesize and use information from a variety of sources

**PSO5** Students articulate an awareness of the social and community contexts within their disciplinary field

**PSO6** Students assimilate knowledge of fundamental concepts and theoretical propositions

**PSO7** Students understand the methodology by which economic ideas are framed, tested and modified.

**PSO8** Students take up a career in economics and related areas.

**PSO9** Students analyse the economic issues of national and international importance and realize the dynamics behind them.

**PSO10** Students generalise how the economic policies of the government and governmental institutions affect the common people.

**PSO11** Students critically evaluate and apply the theories and techniques of economics.

**PSO12** Students demonstrate subject-specific thinking skills that are readily transferable to problem solving and decision making in a wider context.

## **BA ENGLISH LANGUAGE AND LITERATURE**

### **PROGRAMME SPECIFIC OUTCOME**

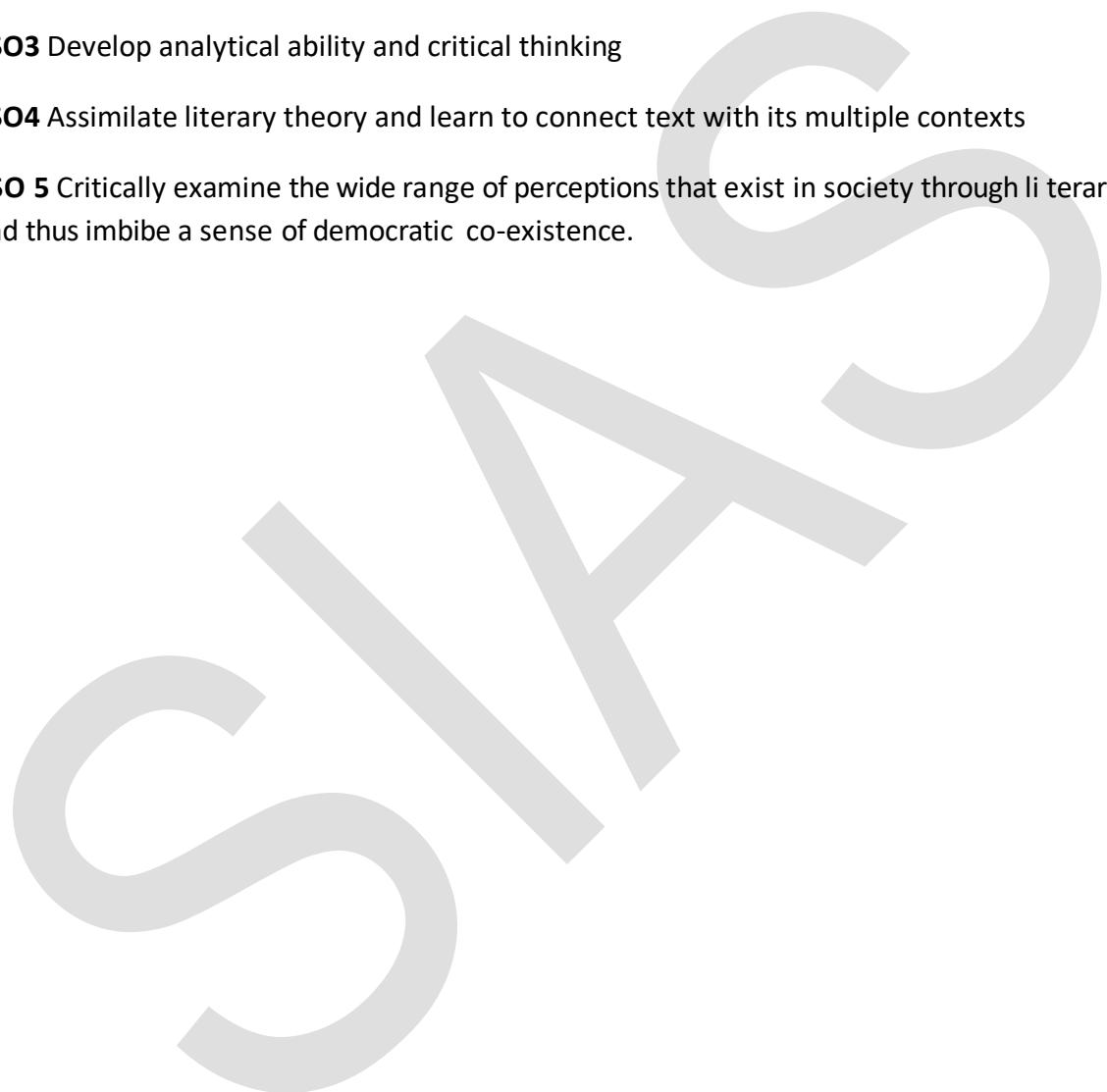
**PSO1** Understand and differentiate between different types, canons, movements and contexts of literature

**PSO2** Develop and apply advance language skills both in and outside classroom.

**PSO3** Develop analytical ability and critical thinking

**PSO4** Assimilate literary theory and learn to connect text with its multiple contexts

**PSO 5** Critically examine the wide range of perceptions that exist in society through literary texts and thus imbibe a sense of democratic co-existence.



# **BA ISLAMIC FINANCE WITH COMPUTER APPLICATION**

## **PROGRAMME SPECIFIC OUTCOME**

**PSO1** Critically analyse, evaluate the financial system and apply the theories and techniques of interest free financial transactions.

**PSO2** Demonstrate subject-specific ‘thinking’ skills that are readily transferable to problem solving and decision making in a wider context.

**PSO3** Enhance their lifelong learning, employing a range of practical and professional skills.

**PSO4** Find, evaluate, synthesize and use information from a variety of sources

**PSO5** Use of modern computing and accounting techniques

**PSO6** Articulate an awareness of the social and community contexts within their disciplinary field