



# THANTHAI HANS ROEVER COLLEGE (AUTONOMOUS)

(Re-Accredited by NAAC with B<sup>++</sup> Grade, Affiliated to Bharathidasan University)

PERAMBALUR - 621 220.



## INTERNAL QUALITY ASSURANCE CELL (IQAC)

### LEARNING OUTCOMES FOR ALL THE DEPARTMENTS

#### DEPARTMENT OF TAMIL

##### **Program Outcome: B.Lit.**

- To Learn Social Values
- To learn to speak and write the Language without error
- To get a job in the Media
- To get job by clearing the Competitive Examination
- To Train the students to bring out their creating

##### **Program Outcome: M.A**

- To learn techniques of Literature.
- Students would get Application knowledge of Literature.
- To understand the importance of Teaching Profession
- To increase the awareness of Media oriented jobs.
- To grow their creating and to learn about the importance of publishing.

##### **Program Outcome: M.Phil**

- To learn the tactics of Research
- To understand the qualities of Learning and Teaching
- To understand the vast area of Tamil Literature and to carry out research in it

#### DEPARTMENT OF ENGLISH

##### **Program Outcome:**

Students will be able to write effectively for a variety of professional and social settings. They will practice writing as a process of motivated inquiry, engaging other writers ideas as they explore and develop their own.

##### **Program Specific Outcome:**

Student will develop an appreciation of how the formal elements language and genre shape meaning. Student will gain knowledge of the major tradition of literature written in English, and an appreciation for the diversity of literary and social voices within - and sometimes marginalized by those traditions. Student will develop the ability to read works of literary, rhetorical and cultural criticism, and deploy ideas from these texts in their own reading and writing. Student will develop a passion for literature

and language. They will develop literature's ability to elicit feeling, cultivate the imagination, and call as to account as humans.

**Course Outcomes:**

- Addresses Gender issues and focuses on means to avoid the discrimination of gender by introducing the women's voice articulated in Literature from various countries.
- Addresses human values to the students by focusing on Literary characterization and dramatic techniques.
- Enables the students to prepare for the UGC Eligibility Tests and to train them to succeed in various competitive examinations.
- Facilitates the students to understand the advanced skills used in spoken communication and to understand the importance of overall development of personality.

**DEPARTMENT OF MATHEMATICS**

**UG Program Outcome**

**Mathematical Knowledge:**

- Apply the knowledge of mathematics, science and mathematical specialization to the solution of analysis problems.

**Problem Analysis:**

- Identify, formulate and analyze complex problems reaching substantiated conclusion using principles of Mathematics.

**PG & M.Phil. Program Outcome**

**Mathematical Knowledge:**

- Apply the detailed knowledge of mathematics and various specializations to the solution of complex problems.

**Modern tool usage:**

- Create, select and apply appropriate techniques, resources and advanced Mathematical activities tools including prediction and modeling to complex mathematical activities with an understanding of the limitations.
- Use research based knowledge and research methods including mathematical experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.

**Program specific outcome**

- Graduates will be able to apply Mathematical skills and modern Mathematical tools for Mathematical science day to day practice.
- Graduates will be able to participate in critical thinking and problem solving ability.

- Graduates will be able to pursue of lifelong learning and professional development to face challenging and emerging needs of our society.

## DEPARTMENT OF COMPUTER APPLICATION

### Programme Outcomes :

- Work effectively in teams to design and implement solutions to computational problems
- Think critically and creatively, both independently and with others
- Adapt to new developments in the field of computer science and Applications

### Programme Specific Outcomes

- To apply design and development principles in the construction of software systems of varying complexity
- To design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
- Analyze and compare alternative solutions to computing problems
- Design and implement software systems that meet specified design and performance requirements
- Apply advanced algorithmic and mathematical concepts to the design and analysis of software

## DEPARTMENT OF COMPUTER SCIENCE

### Program Outcomes: B.Sc

- The Bachelor of Science in Computer Science B.Sc (cs) program focuses on the concepts and techniques used in the design and development of advanced software systems.

#### Program Specific Outcomes:

- Students in this program explore the conceptual underpinnings of Computer Science - its fundamental algorithms, programming languages, operating systems, and software engineering techniques.

### Program Outcomes: M.Sc Computer Science

- A graduate with a M.Sc., in computer science will have the ability to use computer science concepts, designs and solutions effectively and professionally. To apply knowledge of research and computing to produce effective designs and solutions for specific problems

#### Program Specific Outcomes:

- On completion of the M.Sc computer science degree the graduates will be able to design and develop computer programs , algorithms, networking , web design , IoT and data analytics of varying complexity. To acquaint with the contemporary trends in industrial/research settings and thereby innovative novel solutions to existing problems

### **Program Outcomes: B.Sc Information Technology**

- The Bachelor of Science in Information Technology [B.Sc(IT)] program focuses on the basic knowledge of computer science with information technology, good communication to the practical world, additional skill development to the students and cooperative knowledge to the outside environment.

### **Program Specific Outcomes:**

- Students in this program have the basic theory and practical knowledge of computer programming languages, fundamental algorithms, system software, application software, data communication and networking concepts, database system concepts, web development tools and software engineering techniques as well as project development.

### **Program Outcomes: M.Sc Information Technology**

- The PG information technology program based on the technology specialization with in a broader context of changing IT industry needs and research.
- Program Specific Outcomes:
- To analyze and synthesize computing systems through quantitative and qualitative techniques to solve a problem in the area of IT. Competent and complete software professional to meet the requirement of corporate world and industry standard to provide solution for software industry, society and business.

## **DEPARTMENT OF PHYSICS**

### **Programme outcomes :**

- Students are expected to acquire a core knowledge in physics, including the major premises of classical mechanics, quantum mechanics, electromagnetic theory , electronics, optics, special theory of relativity and modern physics
- Students are also expected to develop a written and oral communication skills in communicating physics-related topics.
- Learn to minimize contributing variables and recognize the limitations of equipment. Discover of physics concepts in other disciplines such as mathematics, computer science, engineering, and chemistry.
- Develop the following experimental tools: Numerically model simple physical systems using Euler's method, curve fitting, and error analysis. Analyze physical problems and develop correct solutions using natural laws.

### **Programme Specific outcomes**

- Students are expected to acquire a core knowledge in physics, including the major premises of classical mechanics, quantum mechanics, electromagnetic theory, electronics, optics, special theory of relativity and modern physics.
- Students are also expected to develop a written and oral communication skill in communicating physics-related topics.
- Students should learn how to design and conduct an experiment (or series of experiments) demonstrating their understanding of the scientific method and processes. Not only that they are expected to have an understanding of the analytical methods required to interpret and analyze results and draw conclusions as supported by their data.

- Students will develop the proficiency in the acquisition of data using a variety of laboratory instruments and in the analysis and interpretation of such data.
- Students will learn the applications of numerical techniques for modeling physical systems for which analytical methods are inappropriate or of limited utility.
- Students will realize and develop an understanding of the impact of physics and science on society.
- Apply conceptual understanding of the physics to general real-world situations.
- Describe the methodology of science and the relationship between observation and theory.
- Learn to minimize contributing variables and recognize the limitations of equipment.
- Discover of physics concepts in other disciplines such as mathematics, computer science, engineering, and chemistry.
- Develop the following experimental tools: Numerically model simple physical systems using Euler's method, curve fitting, and error analysis.
- Analyze physical problems and develop correct solutions using natural laws.

## **DEPARTMENT OF COMMERCE**

### **PROGRAMME OUTCOMES**

Knowledge in the field of Accounting

- Critical thinking
- Communication Skills
- Professional Knowledge
- Computing Skills

### **PROGRAMME SPECIFIC OUTCOMES**

#### **B.Com**

- To Understand the Various Principles that governs the applications of Commerce & Management
- To Understand the Accounting Concepts and acquire the skills in Preparing Various Accounts.

#### **B.Com(CA)**

- To enable the Students to acquire accounting Skills
- To enable the Students to learn Office Packages, Office Automation & C Programming Languages.

#### **M.Com**

- To enable the Students to have Working Knowledge in Corporate and Special accounting.
- To develop adequate entrepreneurial Skills among Students and help to understand the Process of establishing and developing an enterprise.

#### **M.Phil**

- To enable the Scholars to Understand the Basic Concept of Research Methods.
- To learn the Concepts of Management in general, and to identify the issues in Commerce areas.

### **COURSE OUTCOMES**

- Help students to acquire knowledge on Commerce and various branch of accounting.

- To Guide the students to gain knowledge on direct and indirect taxes
- To understand the legal rules and relations regarding Business and Companies
- To know the auditing process and auditor's responsibilities.
- To demonstrate effective business communication and professional skills.
- To impart knowledge on Human Resource Management, Financial Management & Marketing Management.
- To inculcate Entrepreneurial skills among students.

## DEPARTMENT OF MICROBIOLOGY

### Programme Outcome:

- Acquires a comprehensive theoretical knowledge and practical training in applied areas of Microbiology.
- Provides an integrated, theoretical and unique practical training platform in the field of Microbiology at local, national and international standards.
- Provides a multidimensional knowledge for pursuing research in the field of Microbiology. Students can understand about the basic research methods and various data collection techniques.

### B.Sc Microbiology

#### Programme Specific Outcome:

- Students enable to get microbiological concepts, experimental results and analytical skills.

#### Course Outcome:

- Students acquires the knowledge about microorganisms with their role and functions in both living and non-living things and also they will get knowledge about immune systems, diseases and micro and macro molecules.

### M.Sc Microbiology

#### Programme Specific Outcome:

- Students impart theoretical knowledge and advanced microbiological techniques with scientific concepts and analytical skills

#### Course Outcome:

- Students acquires inclusive knowledge regarding immune responses, causative agents and role of microbes in food production

## DEPARTMENT OF CHEMISTRY

### PROGRAM OUTCOMES

1. **Theory and Knowledge:** Upon completion of the organic chemistry sequence, chemistry majors are able to recognize and apply the principles of atomic and molecular structure to predict chemical properties and chemical reactivity.
2. **Laboratory Skills:** Upon completion of a degree, chemistry majors are able to employ critical thinking and scientific inquiry in the performance, design, interpretation and documentation of laboratory experiments, at a level suitable to succeed at an entry-level position in chemical industry or a chemistry graduate program.
3. **Quantitative Skills:** Upon completion of a chemistry degree, chemistry majors are able to interpret and analyze quantitative data.
4. **Instrumentation:** Upon completion of a BS in Chemistry degree, students are able to understand theoretical concepts of instruments that are commonly used in most chemistry fields as well as interpret and use data generated in instrumental chemical analyses.
5. **Biochemistry:** Upon completion of a chemistry degree with a biochemistry concentration, students will recognize and apply key principles of biochemistry.

### PROGRAM SPECIFIC OUTCOMES

1. Creating interest in environmental issue.
2. Increasing working knowledge of instruments.
3. Obtaining the knowledge of pharmaceutical tables.
4. Social awareness about the quality of water.
5. Increasing the practical skill of the students, Creating Awareness about plastic garbage.

### COURSE OUTCOMES

#### Physical chemistry:

1. Developing problem solving skills.
2. Developing scientific knowledge.
3. Developing working knowledge of instrument.

#### Inorganic Chemistry:

1. Developing ability to apply the knowledge on contents of principles of chemistry.
2. Developing the power of appreciation, the achievement in chemistry and role in nature and society.

#### Organic Chemistry:

1. Developing spectral knowledge.
2. Developing proper aptitude towards the subject.
3. Creating scientific approach towards various chemical reactions.

#### Analytical Chemistry

1. Exposure to different processors used in Industries and their applications.
2. Developing ability to acquire the knowledge of terms, facts, concepts, processors, technique and principles of subject.

## DEPARTMENT OF BIOTECHNOLOGY

### Program outcome

Students those who are enrolling with Bachelor & Master of Science use to learn the basic knowledge about the art of creative technology along with science. This course of B.Sc, M.Sc& M.Phil includes respective modules of theory and practical in relative field of science.

### Program Specific Outcome

Biotechnology is a field of applied biology that involves the use of living organisms and bioprocesses in engineering, technology, medicine and other fields requiring by products.

### Course Outcome

- Understand the foundational concepts of molecular biology, microbiology, immunology, plant & animal biotechnology, cell Biology, rDNA technology and how these impact biotechnology research and development in the diverse fields that span healthcare and agriculture.
- Demonstrate proficiency in basic laboratory skills common to clinical and non-clinical research laboratories, including aseptic technique, making accurate and precise measurements using balances and macro and micro-pipetting, using a microscope, preparing solutions, operating Current instrumentation, preparing samples for various analyses and maintaining a proper scientific laboratory notebook.
- Design, perform and analyze results of experiments using basic molecular biology methodologies and recombinant DNA techniques, including agarose and poly acryl amide gel electrophoresis, restriction enzyme digestion, bacterial transformations, plasmid DNA protein expression, PCR and tissue culture.
- Apply the fundamentals of molecular biology theories, methodologies and techniques by critically analyzing, interpreting, and presenting a recent and relevant scientific research paper that has been published in a refereed scientific journal.

## DEPARTMENT OF MANAGEMENT STUDIES

### BBA Programme Outcome

- On completion of the programme, students will be able to:
- Grow and enable leadership qualities
- Exhibit technical proficiency in business
- Impart knowledge, skill and build competition for needed Business environment
- Develop creativity and entrepreneurship
- Analyze and develop solutions for business problems by using logical reasoning patterns

### BBA Programme Specific Outcome

- Construct, analyze and evaluate different forms of argument and present them in a logical and coherent manner.

### MBA Programme Outcome

- On completion of the programme, students will be able to:
- Handle future challenges of business



- Gain a global perspectives
- Recognize organizational realities and the challenges
- Create entrepreneurial skills
- Acquire analytical ability
- Exhibit competence in the use of technology and information systems in modern organizational operations /business.

#### **MBA Programme Specific Outcome**

- Formulate an integrative business project through the application of multidisciplinary knowledge comprising of accounting, finance, operations, management information system, marketing and human resources management.

#### **M.Phil Programme Outcome**

- On completion of the programme, students will be able to:
- Provide the opportunity to acquire and develop skills and expertise relevant to high-level management practice.
- Enable students to prepare for advanced research
- Train for methodological competencies in research work.
- Develop skills of ICT and apply them in teaching learning context and Research.

#### **M.Phil Programme Specific Outcome**

- Demonstrate critical understanding, at an advanced level, of up-to-date knowledge and research methodology of a particular field
- Implement effective academic and personal strategies for carrying out research projects independently and ethically
- Evaluate one's own research in relation to important and latest issues in the field

#### **Ph.D Programme Outcome**

- Exhibit proficiency in academic research, writing, and critical thinking skills.
- Contribute original knowledge in response to issues in their specialist area

#### **Ph.D Programme Specific Outcome**

- Conduct ethical scholarly research through innovative or traditional methods in the field of management. Communicate research findings at a diverse range of levels and through a variety of media.

#### **Course Outcome for Management Studies**

At the end of the programme, the students should be able to:

- Understand the managerial tasks of planning, organizing, and controlling can be executed in a variety of circumstances with an ethical manner.
- Contribute to the development, implementation, and evaluation of employee recruitment, selection, orientation, training, and retention plans and processes.

- Determine strategies for developing new products and services that are consistent with evolving market needs.
- Know about information contained in the published financial statements of companies and other organisations.
- Manage the various business arrangements of a production.
- Apply mathematics at varying levels to aid decision-making
- Acquired group dynamics and demonstrate skills required for working in groups (team building)
- Organize and conduct research (advanced project) in a more appropriate manner

## **DEPARTMENT OF SOCIAL WORK**

### **PROGRAMME OUTCOME**

- Students mastery of social work professionalism and values
- Commitment to social justice, understanding of human behavior and social environment
- Students graduate with specialized knowledge and skill needed for social work practice

### **PROGRAMME SPECIFIC OUTCOME:**

- Equipped with knowledge and skills for informed practice
- Acquire knowledge, understanding and practice competence
- Assess, intervene and evaluate with individuals, families, groups, organizations and communities
- Ability to intervene appropriately on client's behalf
- Identify as a professional social worker

### **COURSE OUTCOME:**

- It addresses Human Values by describing what social work is and how human beings are to be helped with self respect and dignity. It enables to professionally help people and identify various social problems.
- It addresses Professional Ethics by explaining the direct method of working with individuals. It describes the process of helping individuals professionally with dignity and respect without discrimination.
- It addresses Human Values by explaining the growth and development of human life span. The various theories of personality are described to understand the human behavior. It enables for analysis of human behavior which helps in practice of social work.

## **DEPARTMENT OF HOTEL MANAGEMENT**

### **Programme Outcome:**

- Promote activities in the field of Hospitality and Tourism Management and also to provide a systematic training for the students in Hotel Industry.

### **Programme Specific Outcome:**

- Enable the students in Food Production, Food and Beverage Service, House Keeping, Front Office, etc.. and they are trained to maintain international standards

**Course Outcome:**

At the end of the course, the students learned about the Food Production, Food and Beverage Service, House Keeping, Front Office and also maintain hotel account system. It provides the knowledge about the various types of food and beverage, accommodations to the guest from various countries.

**DEPARTMENT OF PHYSICAL EDUCATION****Programme outcome :**

The department of physical education has taken precursory steps and has revised the curricula and syllabi to prepare the students to get immediate employment. To fulfill the needs of coexisting fields in sports, it has revised computer applications in sports science and yoga for health education courses to be fit the needs of the sports field.

**Programme specific outcome**

- It develops good leadership quality among students
- Studying physical education develops sportsmanship quality
- To develop discipline among students.
- Making the students to play and experience all type of games

**DEPARTMENT OF VISUAL COMMUNICATION****Programme Outcome:**

Provide a variety of career pathway through introductions to the creative use of media, techniques communications

**Programme Specific Outcome**

Provide a variety of career pathway through introductions to the creative use of media techniques, communication and develop. In-depth knowledge of the specialist visual Designer, Animator, Photo Journalist, Film maker, Graphic Designer, PR (Public Relation) etc.,