

# COURSE OUTCOMES FOR ALL UG AND PG PROGRAMMES

## **Undergraduate Programmes**

### **B.A. Tamil**

The courses will enable the students

- to cope with the modern trends in creating new literary works.
- to know the culture, tradition and customs through ancient Tamil literature.
- to understand the origin of language, types and its history.
- to learn good virtues like discipline, equality and fraternity.
- to understand the history and evolution of Tamil literature.
- to know the knowledge about interdisciplinary learning in Tamil language.

### **B.A. English**

- Students get familiar with social, literary, historical, moral, religious and cultural background of any literary work.
- Once they walk out of the college campus after finishing the programme, they get self confidence.
- The course opens the gate for job opportunities.
- Since “Literature” reflects life, students learn various lessons for their lives through the literary works.

### **B.A. Economics**

- The students acquire clear idea about the basic economics concepts and problems to face the competitive examinations.
- They gain knowledge about the foreign exchange markets and international institutions, and to analyse the trade agreements and foreign trade activities.
- They also understand the significance of mathematical tools and to know the concept and methods of mathematical techniques.

## **B.Sc. Mathematics**

- The students can understand the fundamentals of Mathematics.
- They are able to perform basic computation in higher Mathematics.
- They can demonstrate their proficiency in writing proofs and acquire knowledge to handle the practical problems.
- They can also demonstrate the basic manipulative skills in algebra, geometry, trigonometry and statistics.
- Students can able to acquire basic knowledge about various instruments and statistical techniques in mathematical research.

## **B.Sc. Physics**

On the completion of the course the students will enable to

- understand the concept of properties of matter viz. elasticity, viscosity, low pressure, surface tension and oscillations (free, damped and forced oscillation).
- learn the basics of geometrical optics, physical optics and modern optics.
- explain the concept of gravitation, planetary motion, conservation laws, rotational motion of rigid body, moment of inertia, concept of linear and angular momentum, Newton's laws of motion (mechanics) and relativity.
- acquire knowledge on basics of thermodynamics and to understand the kinetic theory of gases and transport phenomena.
- to understand the electrostatic properties, magnetostatics, magnetism and the basics of electromagnetic waves.
- provide knowledge about the basics of computer programming in C++ and to solve problems by writing programs.
- get an overview about the concept of statistical mechanics and quantum mechanics.
- understand the basics of solid state physics, atomic physics, nuclear physics and spectroscopy.
- describe the principle and working of different kinds of analog and digital electronic devices.
- acquire experimental skills such as handling the instruments, error determination, calculation and analysing the result while handling the laboratory courses.
- handle the electrical and electronic equipments safely and independently by educating the skill based subjects.

## **B. Sc. Chemistry**

The courses will help the students to

- learn Photo Chemistry, Nuclear Chemistry, Thermodynamics and Solid State.

- understand the chemistry of ionic compounds, coordination compounds and role of metal ions in biological systems.
- learn about aromatic compounds, natural products, reaction mechanisms and spectroscopy.
- know about chemicals for the treatment of common diseases.
- acquire knowledge about polymerisation process, techniques and recent advances in polymer sciences.
- know about the importance of different types of analytical techniques.
- study the importance of fast growing technology of nanotubes, nanocomposites and fibres and their applications.
- gain knowledge about characterization and testing of soils, fertilizers and pesticides.
- create awareness on eco-friendly microscale experiments in practical courses.
- pursue higher courses, get job opportunities and to face competitive examinations.

### **B.Sc. Zoology**

After the completion of the programme, the students

- study Biomedical Science and Neuro Science.
- can join as scientist or assistant professor or teacher.
- opt for establishing their own industrial unit.
- can design different public health strategies for social welfare.

### **B.Sc. Computer Science**

- Students can have knowledge and expertise in at least one procedure-oriented and object-oriented programming language.
- Students can have a wide perspective on software development including web based applications as well as graphic applications.
- Students can have the ability to design and implement optimal databases using current technologies.
- Students can have understanding of design and working principles of the digital electronics.
- Students will be able to identify and describe the communication network technologies in local area networks, the internet and security threats.
- Students will be aware of the design principles of operating systems specializing on at least one popular operating system.
- Students will be able to solve simple computational problems involving mathematical structures and processes.

- Students will know the concepts regarding the architecture and organization of a computer system.
- Students will be able to design and analyze algorithms as per need by relating the data structure and algorithms.

### **B. Sc. Computer Application**

The courses of the programme will enable the students

- ❖ to master various process management concepts including scheduling, synchronization and deadlocks.
- ❖ to be familiar with multithreading.
- ❖ to master concepts of memory management including virtual memory
- ❖ to master the concepts of protocols, network interfaces and design/performance issues in local area networks and wide area networks.
- ❖ to be familiar with wireless networking concepts.
- ❖ to be familiar with network tools and network programming.
- ❖ to understand the structure of modern computer graphics systems.
- ❖ to understand the basic principles of implementing computer graphics primitives.
- ❖ to develop design and problem solving skills with application to computer graphics.
- ❖ to apply the knowledge and understand the working, characteristics and limitations of mobile hardware devices including their user-interface modalities.
- ❖ to understand and identify the Global System for Mobile Communications, General Packet Radio Service and Bluetooth software model for mobile computing.
- ❖ to analyze the process of GSM functioning and learn frequency band spectrum, air interface and channel structure, and interpret and compare the functioning of GSM and Code-division multiple access technology.
- ❖ to understand the impact of mobile communication on society either economic or health related issues.

### **Bachelor of Commerce – B. Com.**

On the successful completion of the programme the students will be able to

- develop conceptual understanding of fundamentals of financial and corporate accounting system and gain skills in accounting for various kinds of business transactions.
- acquire knowledge and develop understanding of the necessary frame work of companies with reference to business, industrial laws and various provisions of Company Act 2013.
- develop the qualities of an entrepreneurship to give the ideas about the modern business strategies and to provide the ideas relating to various fields like banking sector, auditing and computer application in business.
- gain knowledge on direct tax and indirect tax, and acquaint to meet the changes or issues besides the theoretical concepts and its application in business.
- equip with the ability to analyse, interpret and use accounting information in managerial decision making and also develop skills to apply the cost control techniques in business.

### **Bachelor of Business Administration – B.B.A.**

- The graduates develop the ability to relate consumer behavior and market trends, handle the complexities associated with management of human resources in the organizations and take optimal managerial decisions. They are able to meet the challenges of modern management and apply information technology in business.
- The program provides well trained professionals for Industries, Insurance Companies, Transport Agencies, Banking Sectors, Financial Companies, Warehousing, etc. to meet the well trained manpower requirements.

## **Course Outcomes for Part IV Common Courses**

The mandatory courses “Yoga and Computer for Digital Era” were introduced from 2017 – 2018 batch for all U.G. Programmes at M.S. University on the initiative of Ministry of Human Resource Development, Government of India.

### **Course Outcomes for Yoga**

The offering of this common course is aimed at

- promoting total personality development of students in colleges and universities.
- invoking positive attitude and spirit to channelize their energies into creative and constructive endeavours.
- preventing health problems and rehabilitation through Yoga.
- promoting positive health.

### **Course Outcomes for Computer for Digital Era**

This common course is aimed at

- creating the awareness about the digital India among the student community.
- making the students to understand the role of computer in the day to day living.
- creating the awareness about the e-learning and security issues.
- making the students to apply the computing technology in their day to day life.
- creating awareness regarding digital India initiatives to their surroundings.
- making the students to identify the areas where one can extend the digital computing for their benefits.

### **Naan Mudhalvan Programme**

The Naan Mudhalvan courses were introduced from 2022-2023 for all U.G. programmes by Manonmaniam Sundaranar University on the initiative of Government of Tamilnadu. The courses for all classes are given as follows:

<b>Year of Programme</b>	<b>Name of NM Courses Taken</b>
<b>FIRST YEAR (Common)</b>	Overview of English Language Communication Assessment & Certification - Cambridge
<b>SECOND YEAR (Common)</b>	Microsoft Office Fundamentals-Microsoft
<b>THIRD YEAR ECONOMICS, BBA , Bcom I&amp; II</b>	Mutual Fund-NSE
<b>THIRD YEAR COMPUTER SCIENCE &amp; BCA</b>	Cyber Security-IZAPY
<b>THIRD YEAR MATHEMATICS &amp; PHYSICS</b>	Data Analytics & Visualization (Powered by Tableau) -SALES FORCE - CRM - Smart internz
<b>THIRD YEAR TAMIL, ENGLISH, CHEMISTRY &amp; ZOOLOGY</b>	Employability Skills Training Program - Naandi Foundation

**An overview of English language communication –  
I year B.A/ B.Sc/ B.Com/B.B.A/ B.C.A**

**Course Outcome**

- The exit test assesses English language ability at A2, B1 on the Common European Framework of reference (International standard for language).
- Each skill is assessed and the candidates are awarded a CEFR level. An average score is awarded for all the skills.

**Microsoft Office Fundamentals – II Year B.A/ B.Sc/ B.Com/B.B.A/ B.C.A**

**Course Outcome**

- The student can access information through Microsoft –Excel.
- The student can participate safely and responsibly in online mode.

## **Mutual Funds-III Year B.Com/B.A.Economics/B.B.A**

### **Course Outcome**

- He / She can create an appropriate asset allocation based on the customer's risk profile
- The student can choose an appropriate investment for the financial goal to plan his/her taxes more efficiently

## **Data Analytics & Visualization-III Year B.Sc. Mathematics and Physics**

### **Course outcomes**

- To gain hands on working skills and industry project experience by learning & Hands-on-with Tableau Platform,
- To build a web application using flask web framework & build a number of use cases in multiple domains such as Financial Services, Insurance, Retail, E-commerce, Telecom, Agriculture, Aviation, etc.

## **Cyber Security –III year B.Sc. Computer Science and B.C.A**

### **Course Outcome**

#### **Students will be able to**

- provide an in-depth analysis of the various types of cyber attacks, with a focus on the network, application, and host levels.
- examining the vulnerabilities that exist at each level, attendees will gain a better understanding of the threat landscape and be better equipped to prevent and mitigate attacks.
- understand recent trends in cyber attacks and highlight the importance of staying up-to-date with the latest threats.

## **Employability skills –III year B.A. Tamil and English, B.Sc. Zoology and Chemistry**

- To gain hands on working skills and industry project experience
- To enhance on the employability prospects



## **Postgraduate Programmes**

### **M.A. Tamil**

The courses help the students

- to cope with the modern trends in creating new literary works.
- to know the culture, tradition and customs through ancient Tamil literature.
- to learn good virtues like discipline, equality and fraternity.
- to understand the history and evolution of Tamil literature.
- to know the knowledge about interdisciplinary learning in Tamil language.

### **M.A. English**

- ❖ Students become familiar with the literary works of various literature.
- ❖ Communicative skill of the students is enriched. New types of criticisms and critical theories are helpful for the students to review a literary work by applying the new critical theories.
- ❖ “World Literature” makes the students understand the cultural and the moral precepts of various nations.
- ❖ Shakespearean plays demonstrate an overall comprehension of the Elizabethan Age.
- ❖ Research Methodology deals with the various strategies involved in the preparation of project/thesis.
- ❖ Commonwealth Literature deals with the literatures of various nations as having been impacted upon by colonialism.
- ❖ History of English Language and Linguistics deal with the impact factors of ancient languages
- ❖ Literature and Ecology deal with nature issues.
- ❖ Diasporic Women’s writings deal with the women writers of various countries whose writings are the expressions of the femimine dilemma.
- ❖ Post colonial writings deal with the literatures of various countries to make the students understand the East - West cultural conflicts.
- ❖ English language teaching deals with the various skills associated with English language teaching.
- ❖ Dissertation writing helps the students with a practical knowledge and understanding of literature.

### **M.Sc. Physics**

On the completion of the programme the students are able to

- explain the concept of two body problem, rigid body dynamics, Lagrangian and Hamiltons formulation and mechanics of small oscillations (Classical Mechanics).
- apply the basic ideas to create, solve and analyze the problems of interest in Mathematical

- Physics, Complex analysis and Numerical methods.
- provide knowledge in Quantum Mechanics which enables the students capable of solving many problems.
  - understand the basics of elementary particles, nuclear structure, nuclear forces and nuclear reactions.
  - get an overview about the concept of statistical physics with the prerequisites of quantum ideas.
  - give detailed knowledge about various types of spectroscopy. The structure of different chemical compounds can be determined by studying these types.
  - provide an insight into the properties of solid state materials and characterize crystals and nanoparticles.
  - describe the principle and working of different kinds of analog and digital electronic devices.
  - acquire basic knowledge about Maxwell's equation and propagation of electromagnetic waves through various media including waveguides.
  - learn the architecture of microprocessor and microcontroller and develop programming skills in assembly language.
  - inculcate the knowledge on ordinary and partial differential equations by introducing the effect of non-linearity.
  - collect literature, write the research articles and thesis and to develop the knowledge of the software Origin and Latex.
  - develop the basic skills to handle the advanced instruments effectively and independently. The theory behind the experiments is also studied.
  - provide hands on experience on microprocessor experiments.
  - solve many tedious physical problems numerically by knowing the knowledge of C++ programming.
  - work independently on project, create innovative ideas, develop scientific attitudes and write the thesis effectively.

### **M.Sc. Mathematics**

- The students can understand the fundamentals of mathematics.
- They are able to perform basic computation in higher mathematics.
- They can demonstrate proficiency in writing the proof and the working knowledge to handle the practical problems.
- They can also demonstrate the basic manipulative skills in Algebra, Geometry, Trigonometry and Statistics.
- Students can able to acquire basic knowledge about various instruments and statistical techniques in mathematical research.

## **M.Sc. Computer Science**

The courses of the programme will make the students

- to familiarize with the buzz words and technology of mobile communication.
- to understand the issues relating to wireless applications.
- to understand the concepts of how an intelligent system works and its brief development process.
- to expose the learners to Neural Network, Fuzzy Logic and Genetic Algorithms, which are the major building blocks of intelligent systems.
- to design, develop, document and test software using current techniques.
- to understand web services and implementation model for SOA (Service Oriented Architecture).
- to acquire a combination of both operating systems & database administration skills.
- to get knowledge of basic software engineering methods and practices, and their appropriate application.
- to acquire knowledge and application of collaborative tools for SW development.
- to provide ability to conduct research activities.

## **Master of Commerce - M.Com.**

The courses of this programme will help the students to

- acquire how interpersonal skills should be practised and developed within an organisation and personal life, and also make the students to understand sensitive situations such as delivering a difficult message to the employees handling a complaint or building a relationship with a new colleague or client.
- empower in the concepts and application of accounting in management, acquire knowledge and skills in investment settings and valuation of securities and also know the responsibilities of retail personnel in the numerous career positions available in the retail field.
- enrich knowledge in the concept of organizational behaviour, organizational development and challenges faced in management.
- acquire skills on the application issues of e-business, internet infrastructure, security over internet, payment systems, various online strategies for E-Business and on the application of Tally 9.0 on accounting systems.
- gain practical knowledge on the formulation of research problems, collection of data, sampling, application of tools, hypothesis testing, interpretation of data and preparation of research report through project work.