

ESTD. -2008

Contact No.: 8288018801, 8288018803

A & M INSTITUTE OF MANAGEMENT AND TECHNOLOGY

(Affiliated to IKG Punjab Technology University, Jalandhar & Recognized by AICTE)

PATHANKOT-DALHAUSIE BYPASS, PATHANKO(PB.)-145001

E-Mail-director amimt@yahoo.com; Website-www.amimt.org.in

SKILL DEVELOPMENT CELL

ADD ON COURSE

SYLLABUS

ACADEMIC YEAR: 2024-2025

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A&M Institute of Management & Technology
Pathankot

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Add on Courses offered during the academic year
(2024-2025)

Sr. No.	Course Code	Course Name
01.	CCEN03	Public Speaking
02.	CYCL01	Chemistry of Life
03.	CYCL01	Physics in General Life
04.	MA02	Mathematical Aptitude
05.	MA01	Mathematics for Competitive Examination

(Dr. Charu Sharma)
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Course Name : Public Speaking

Course Code: CCEN03

Total Hours: 30

OBJECTIVES

The students are able to prepare and deliver effective presentations.
The students will be able to develop their rhetoric skills.

UNIT - I

- The art of Public Speaking

UNIT - II

- Presentation

UNIT - III

- Attention grabbing Speech

UNIT - IV

- Extempore Speech

UNIT - V

- Developing Great delivery

COURSE OUTCOMES

After Completion of the Course, the students will be able to;

- Learn how to appreciate and analyze the poem.
- Get an idea of how to write poem.
- Receive the adequate knowledge about the paragraph writing.

REFERENCE BOOKS

The Art of Public Speaking STEPHEN LUCAS Confessions of a Public Speaker
SCOTT BERKUN.

Course Name: Chemistry of Life

Course Code: CYCL01

Total Hours: 30

OBJECTIVES

- To know the students to discover social and scientific concepts of human beauty, with an emphasis on ways to live a healthy life.
- The students will be trained to understand and discuss the main principles, theories and concepts underlying established knowledge in food chemistry.
- To discuss the biological importance of metal ions and drugs involved in everyday life.
- To describe the properties and uses of glass and ceramics
- To learn the manufacturing, packaging of cheese, butter and milk based products.

UNIT – I COSMETICS CHEMISTRY

(6 Hours)

- Cosmetics – Definition, Classification, Ingredients
- Face Preparation - Structure of Skin, Face Powder, Compact Powder, Talcum Powder
- Skin Preparation – Face Cream, vanishing cream, Cold Cream, Suntan Cream, Lather Shaving cream
- Hair Preparation – Structure of Hair, Classification of Hair, Hair Dye – Classification – Hair Sprays, Shampoo – Types of Shampoo, Conditioners.
- Color Preparation – Nail Polish, Nail Polish Remover, Lip Balm, Lipsticks

UNIT – II FOOD CHEMISTRY

(6 Hours)

- Common Foods Subjected to Adulteration – Definition - Types; Detection of Adulterants in flowing Foods; Milk, Oil, Grain, Sugar, Spices & Condiments, Processed Food, Fruits and Vegetables.
- Additives and Sweetening agents, artificial colours and artificial flavours, beverages – alcoholic and Non – alcoholic, Carbonated water.
- Pickles and chutneys; Preparation of various types of pickles-theory and practice; preparation of sauces and chutneys; problems relation to the shelf life of pickles and chutneys; quality control.

UNIT - III BIOLOGICAL IMPORTANCE OF METAL IONS AND DRUG CHEMISTRY (6 Hours)

- Oxygen transport and storage; Hemoglobin, Myoglobin. Role of Metal ions in biological system and its deficiency; Zinc, Iron, Copper, Molybdenum, Calcium, Magnesium.
- Role of hazardous materials such as Nitric Oxide, Cyanide and Methyl isocyanate etc., in biological system.
- Drugs – Anaesthetics, Analgesics, Antipyretics, Anti – inflammatory agents, Antiseptics and disinfectants.

(6 Hours)

UNIT – IV GLASS & CERAMICS

- Physical and chemical properties of glasses, Raw materials, manufacturing of special glasses.
- Ceramics and their properties, raw materials, manufacturing of ceramics, Applications of colours to pottery, uses of ceramics.
- Industrial Gases: Manufacturing and industrial uses of H_2 , O_2 , N_2 , CO_2 , Cl_2 & acetylene gases and Liquefaction of gases.

(6 Hours)

UNIT – V MILK PRODUCTS

- Manufacture of hard, semi hard, soft and processed cheeses. Storage, grading and marketing of cheese. Manufacture of butter, packaging, storage and marketing of butter.
- Frozen milk products: classification, manufacture, packaging, storage and marketing of ice-cream, ices, sherbets.
- Manufacture, packaging, storage and marketing of milk based foods like ghee, khoa, yoghurt, burfi, gulabjamun, rosogolla, paneer.

COURSE OUTCOMES

After Completion of the Course, the students will be able to;

- Explain the basic chemistry and biology behind the production and use of cosmetics.
- Identify and control adulterants in various foods and evaluate food quality.
- Evaluate the role of metal ions in biological systems and to know the function of haemoglobin in oxygen binding by metal ions.
- Gain the basic knowledge about non - crystalline solids.
- Prepare/manufacture different dairy products such as cheese, butter, ghee, yoghurt.

icecream and milk based products.

REFERENCE BOOKS

- Principles of Physical Chemistry - B. R. Puri, Sharma and S. Pathania
- Organic Chemistry - R. T. Morrison and Boyd.
- Principles of Inorganic Chemistry-B. R. Puri, L. R. Sharma and K. C. Kallia.

Course Name: Physics in General Life

Course Code: CYCL01

Total Hours: 30

OBJECTIVES

- To describe the conceptual understanding of fundamental physics principles.
- To provide Medical Physics support with the goal of improving the effectiveness and safety in the use of physics and technologies in medicine.
- To know the importance of material properties for a wide variety of medical applications
- To know the importance of improve energy security, improve access to energy.
- To understand basic laser Physics.

UNIT – I INTRODUCTION TO PHYSICS

(6 Hours)

- Physics and the laws of nature, units of length, mass and time, dimensional analysis, significant figures, work done by a constant force, position, distance and displacement, speed and velocity, potential energy, kinetic energy.

UNIT – II MEDICAL PHYSICS

(6 Hours)

- The role of the medical physicist in relation to medical devices.
- Devices for radiotherapy (including) linear accelerators – 60 units – Treatment planning computers.
- Imaging devices (including) X-rays, CT Scanner, Nuclear Medicine, Ultrasound MRI Scanners.

UNIT – III MATERIAL PHYSICS

(6 Hours)

- Material Physics – Knee replacement, Metal Wear in M on M knee joint, wear classification knee replacement advantages and disadvantages.

UNIT – IV ALTERNATE ENERGY SOURCES

(6 Hours)

- Energy Crisis, resources of energy, convenient and Non- conventional energy sources. Solar


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energy, Wind energy, Tidal energy and Bio energy

UNIT – V LASER

(6 Hours)

- Production of Laser, Helium - Neon laser - Ruby laser - CO₂ Laser Semiconductor laser, Laser in Medicine, Laser in surgery - laser in ophthalmology - laser in cancer treatment, Industrial applications of laser, Laser cutting – welding – drilling – hologram - recording and reconstruction of hologram, Laser – Physiotherapy equipment involving optical and other forms of electromagnetic radiation.

COURSE OUTCOMES

After Completion of the Course, the students will be able to;

- Have strong foundation knowledge and comprehend the basic concepts and principles in Physics.
- Explain about the importance of medical physics.
- Understand the role of metals in the applications of knee replacement.
- Describe the types of energy resources.
- Understand the basic principle of laser, characteristics, types of lasers and applications.

REFERENCE BOOKS

- Medical Physics – John Christopher Draper.
- Laser Physics & Technology – Pradeep Kumar Gupte & Rajeev Khare.
- Physics of Material – Palanisamy P.K

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Course Name : Mathematics for Competitive Examination**Course Code: MA01****Total Hours:30****OBJECTIVES**

To introduce the concepts of mathematics with emphasis on analytical ability and Computational skill needed in competitive examinations

UNIT – I**(6 Hours)**

- Problems on numbers and problems on ages, Ratio and Proportion

UNIT – II**(6 Hours)**

- Problems on simplifications, Square roots and Cube roots, Average.

UNIT - III

- Problems based on time & distance, boats and streams, trains.

UNIT – IV**(6 Hours)**

- Problems based on simple interest and compound interest

UNIT – V**(6 Hours)**

- Problems based on blood relations, sequence completion and logical reasoning.

COURSE OUTCOMES

After Completion of the Course, the students will be able to;

- Develop analytical and Scientific reasoning skills
- Identify the nature of the problem and describe simple methods of solving it
- Face competitive examinations and group exams without much difficulty

REFERENCE BOOKS

- QUANTITATIVE APTITUDE for Competitive Examination – Dr.R.S.Aggarwal.
- Praveen R. V. Quantitative Aptitude and Reasoning, PHI Learning Pvt. Ltd, New Delhi

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Course Name:Mathematical Aptitude

Course Code: MA02

Total Hours : 30

OBJECTIVES

- To introduce the concepts of mathematics with emphasis on analytical ability and computational skills needed for competitive examinations.

UNIT – I

(6 Hours)

- Problems on Calendar, Data Interpretation and Data Sufficiency

UNIT – II

(6 Hours)

- Problems on Pipes & Cisterns, Percentage and Permutation & Combinations

UNIT – III

(6 Hours)

- Problems on Mensuration, Clocks and Elementary Algebra

UNIT – IV

(6 Hours)

- Problems on Puzzles, Analytical Reasoning and Alpha Numeric Reasoning

UNIT – V

(6 Hours)

- Problems on Probability and Elementary Statistics

COURSE OUTCOMES

After Completion of the Course, the students will be able to;

- Identify the given problem and solve it easily in competitive exams
- Solve the problem within fraction of minutes after knowing the tricks to solve a particular problem
- Solve logically using the formulas without a big calculation.

REFERENCE BOOKS

- Logical & Analytical Reasoning – R.Gupta's.
- A Modern Approach to Logical Reasoning – Dr.R.S. Aggarwal

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