



**IOE** | INSTITUTE  
OF  
EMINENCE

[AHE001-02] - CLINICAL BIO CHEMISTRY - I

Total Time:- 107 hours

Theory:- 76 hours

Practicals:- 31 hours

Placement- 1st Year

Course Description:- This Course is designed to enable the students to understand Bio Chemical parameters of body and the diseased states by fluctuation in Biochemical parameters.

Unit	Time (Hrs)		Objectives	Content	Assesment methods
	Theory	Practical			
Unit-1	12 hours	6 hours	Overview of Biochemistry	Definition, Scope and Significance of Biochemistry Overview of elements chemical reactions and Biomolecules in Living organism Important Discoveries in Biochemistry.	Lectures, Open Basic Viva , Practical tests and Sessional Exams.
UNIT-2	17 hours	6 hours	Concentration units Properties of Water:-	Avagadro's number, mole fraction, Molarity, Equivalent weight, Normality, Molality, percentage Molecular Structure, Physical Properties of Water- Colligative properties Physical properties of molecules	Lectures, Open Basic Viva , Short Question Answers, Practical Tests
UNIT-3	20 hours	6 hours		Adsorption: Definition, Freundlich and Langmuir's adsorption isotherm- Applications of adsorption- Viscosity-Distribution law- Equilibria- Bio Inorganic- Co-ordination compounds- Types of ligands- Uni, bi and polydentate with Examples.	Lectures, Open Basic Viva , Short Question Answers, Practical Tests

UNIT-4	15 hours	9 hours	Bile Pigments	Types, structure and chemical Nature of Nitrogen :Fixation of atmospheric nitrogen symbiotic and non-symbiotic Nitrogen cycle . Environmental pollution by nitrogen compound- Phosphorous-Importance of phosphorus compounds in biological system, phosphorous cycle.	Lectures, Open Basic Viva , Short Question Answers, Practical Tests
UNIT-5	12 hours	4 hours	Oxygen	Importance of oxygen in Biological System-Formation and role of ozone in maintenance of life on earth-Effects of Environmental pollutants on ozone layer Sulphur and selenium-Importance of compounds of sulphur and selenium in biological system.	Lectures, Open Basic Viva , Short Question Answers, Practical Tests



# IOE | INSTITUTE OF EMINENCE

[AHE001-03] - CLINICAL MICRO BIOLOGY - I & PARASITOLOGY

Total Time:- 107 hours

Theory:- 76 hours

Practicals:- 31 hours

Placement- 1st Year

Course Description:- This Course is designed to teach the students about the Pathogenesis and Diagnosis of Parasites and Bacteria and to give a brief history of Microbiology.

Unit	Time (Hrs)		Objectives	Content	Assesment methods
	Theory	Practical			
UNIT- 1	15 hours	6 hours	History of Bacteriology, its Classification & isolation.	General methods of isolation & identification of pathogenic bacteria- Infections associated with following Gram-positive bacteria - Bacillus anthracis. Clostridium, Pneumococcus, Corynebacterium.	Lectures , Short Question Answers , Demonstration of Microbes in Labs.
UNIT-2	14 hours	6 hours	Infections caused by Gram Negative and Gram Positive bacteria.	Staphylococcal infections, Infections associated with following Gram negative bacteria Enterobacteriaceae Salmonella, Shigella, Klebsiella, Proteus, Yersinia and Escherichia	Lectures, Open Basic Viva , Practical tests and Sessional Exams.

UNIT-3	20 hours	6 hours	Brief Classification and definition of bacteria. History of Parasites.	Vibrio, Pseudomonas, Neisseria, Haemophilus, Campylobacter, Bordetella, Brucella- Classification and Brief history of Protozoa and helminthic infections - mechanism of disease production by parasites.	Lectures, Open Basic Viva, Short Question Answers, Practical Tests
UNIT-4	15 hours	9 hours	Classifications of Parasites-	Etiology, Pathogenesis, Clinical diagnosis of following protozoans - Entamoeba histolytica, Giardia lamblia, Leishmania, Plasmodium and Cryptosporidium-	Lectures, Sessional Exams, Demonstration of Microbes by Students
UNIT-5	12 hours	4 hours	Clinical diagnosis of Parasites .	Etiology, Pathogenesis, Clinical diagnosis of following Nematodes - Trichonella, Trichuris, Ancylostoma and Wuchereria bancrofti.	Lectures, Short Q&A assesment, Discussing the Learning Outcomes.



[AHE001-04] - HAEMATOLOGY, BLOOD BANKING & HISTO PATHOLOGY - I

Total Time:- 107 hours

Theory:- 76 hours

Practicals:- 31 hours

Placement- 1st Year

Course Description:- This Course is designed to teach the students about the hematological parameters and to diagnose the patient .

Unit	Time (Hrs)		Objectives	Content	Assesment methods
	Theory	Practical			
UNIT- 1	15 hours	8 hours	Specimen Collection And Laboratory Preparations In Hematology	Routine Hematological Test- Hb Estimation, Total Leukocyte Estimation- Total Erythrocyte Estimation, Differential Leucocyte Count(DLC), ESR, Packed Cell Volume(PCV).	Lectures , Short Question Answers, MCQs and Subject Enrichment activities(SEA)
UNIT-2	14 hours	7 hours	Special Hematological Tests and Cell Counting	Cell Volume-Reticulocyte Count, Plate Lot Count, Absolute Eosinophil Count, Arneith Count-Schilling Count, Red Cell Indices, Periphery Cell -Morphology- Foetal Hemoglobin Estimation, Foetal Red Cell Estimations	Lectures , Multiple Choice Question, Subject Enrichment Activities(SEA)

UNIT-3	20 hours	6 hours	Study of Blood Parasites & Diagnosis of Different types of Anemia .	Lupus Erythrematous Cell Preparation, Osmotic Fragility Test-Heinz Bodies Preparation, Bone Marrow Smear Preparations, Study Of Blood Parasites- Interpretation Of Lab Findings In Hematology Anemia, Leukemia Abnormal RBC and WBC Morphology	Lectures , Multiple Choice Question , Subject Enrichment Activities,
UNIT-4	15 hours	6 hours	Homeostasis and Disorders of Coagulation.	Introduction To Homeostasis, Coagulation And Bleeding Disorders- Haematology And Blood Banking -Clotting And Bleeding Time Determinations, Coagulations Mechanisms,Coagulation Studies	Lectures , Multiple Choice Question , Subject Enrichment Activities,
UNIT-5	12 hours	4 hours	Immunohaematology and Blood Transfusion .	Principles Of Immunohaemetrology, Clinical Significance Of BloodTransfusains- Collections And Processing`s Of Blood For Transfusion Routine Lab Procedures In Blood Bank	Lectures , Multiple Choice Question , Subject Enrichment Activities,



# IOE

## INSTITUTE OF EMINENCE

[AHE001-01] - COMMUNICATIVE ENGLISH

Total Time:- 30 hours

Theory:- 15 hours

Practicals:-15 hours

Placement- 1st Year

Course Description:- This Course is designed to teach the students about the English Speaking Skills and to build confidence in them to speak fluent English.

Unit	Time (Hrs)		Objectives	Content	Assesment methods
	Theory	Practical			
UNIT- 1	3 Hours	3 hours	Communication	Communication Process , Verbal Communication , Non-Verbal Communication – Pros & Cons of Communication – Communicative English Exercises.	Lectures , Short Question Answers, MCQs and Subject Enrichment activities(SEA)
UNIT-2	3 Hours	3 Hours	Phonetics	Organs of Speech – Vowels – Spelling Areas – Diphthongs – Consonants – Stress – Word Accent – The Parts of Speech in English.	Lectures , Multiple Choice Question, Subject Enrichment Activities(SEA)
UNIT-3	6 Hours	6 hours	Communicative Grammar	Classification of Nouns and Their functions, Verbs, Symbols, Pronouns, Auxiliary Verbs, Articles – Use of the Indefinite article, Tenses, Prepositions, Phrasal Verbs and Adverb Particles, Verbs Patterns and structures.	Lectures , Multiple Choice Question , Subject Enrichment Activities.

UNIT-4	3 Hours	3 hours	Sentences and Forms of Speech	Patterns of Sentences, Direct and Indirect speech, Degrees of Comparison- Simple, Complex and compound sentences – Basics of Interpersonal skills, Basics of Body language.	Lectures , Multiple Choice Question , Subject Enrichment Activities,
--------	---------	---------	-------------------------------	---	--





# IOE

**INSTITUTE  
OF  
EMINENCE**

[AHE001-01] - COMPUTER FUNDAMENTALS

Total Time:- 30 hours

Theory:- 15 hours

Practicals:-15 hours

Placement- 1st Year

Course Description:- This Course is designed to teach the students about the computers and to make them understand about MS Office.

Unit	Time (Hrs)		Objectives	Content	Assesment methods
	Theory	Practical			
UNIT- 1	3 Hours	3 hours	An introduction to Windows	Operating System - Desk Top Icons – My Computer, Recycle Bin, Internet Explorer, Network My documents. Working with Windows - Start Icon – Programs, Favorites, Documents, Settings, Find, Run, Shutdown - Application Icons.	Lectures , Short Question Answers, MCQs and Subject Enrichment activities(SEA)
UNIT-2	3 Hours	3 Hours	An Introduction to Word	An Introduction to Word – The word workspace, Editing of proofing files, merging documents and macros. - Primary Commands in File Menus.	Lectures , Multiple Choice Question, Subject Enrichment Activities(SEA)

UNIT-3	6 Hours	6 hours	Excel and its Basics	<p>Building a Simple Worksheet-          Deleting Cells -          Formatting Basics –          Conditional Formatting,Auto Formatting.          Working with Multiple Worksheet –Opening Existing Workbooks –          Simple calculations,          Doing arithmetic Ranges          Formatting Text</p>	Lectures , Multiple Choice Question , Subject Enrichment Activities,
UNIT-4	3 Hours	3 hours	MS Office	<p>Basics of MS Office Tools,          Ms Office Access, Ms Office Groove, Ms office one note, Ms Office outlook, Ms Office power point.</p>	Lectures , Multiple Choice Question , Subject Enrichment Activities,