

## **INTEGUMENTARY & DIGESTIVE SYSTEM**

**Add-on course: 1**

**Total: 30 hours**

### **Unit I (6 hours)**

The Skin: Structure and functions of skin, Surface Anatomy & Surface Markings of Human Body Ageing: Changes in the system due to ageing, Resistance to infection.

### **Unit II (6 hours)**

Body as a whole: Structure and functions of Skull, Thorax, Abdomen.

### **Unit III (6 hours)**

Digestive System: various parts of digestive system-Liver, Gall Bladder, Pancreas, Buccal Cavity, Pharynx, Oesophagus, Stomach and intestine -physiology of digestion and absorption.

### **Unit IV (6 hours)**

Pre- analytical & analytical variables, Collection, Separation, preservation and transport of biological specimens, anticoagulants.

### **Unit V (6 hours)**

Basic Principles and operations of Colorimeter, Incubator, Common balance, and Micropipette.

### **Books Recommended**

1. Textbook of Medical Physiology – Veena Mehta Ahuja. Ane Books Pvt. Ltd. 2<sup>nd</sup> Edition
2. Introductory Practical Biochemistry – S.K. Sawhney and Randhir Singh

## **LYMPHOHAEMOPOIETIC SYSTEM**

**Add-on course: 2**

**Total: 30 hours**

### **Unit I (6 hours)**

Haemopoietic and Lymphatic System: lymph glands & lymph vessels & lymph gland locations.

### **Unit II (6 hours)**

Body defense Mechanism: innate immunity, Acquired immunity and autoimmunity.

### **Unit III (6 hours)**

Haematological disorders: Environmental agents interfering with the haematopoietic system.

### **Unit IV (6 hours)**

Basic causes of Accidents, Common types of Laboratory accidents: Physical Injury, Electric shock, Exposure of dangerous chemicals, Poisoning with strong acids and alkali, Eye accident, Skin puncture by broken glass, Safety requirements of the laboratory First aid in laboratory accidents.

### **Unit V (6 hours)**

Basic Principles and operations of cooling centrifuge, Role of microorganisms in body defense mechanism.

### **Books Recommended**

1. Immunology – Roitt, Brostoff and Male. International edition 6<sup>th</sup> Edition.
2. Textbook of Microbiology – Ananthanarayan and Paniker- Orient Longman 7<sup>th</sup> Edition
3. Practical Clinical Biochemistry – Harold Varley, Alan H Gowenlock and Maurice Bell. William Heinemann medical Books Limited 5<sup>th</sup> Edition.