



## COURSE OVERVIEW

# HUMAN ANATOMY Theory

Assist. Prof. Dr. Sangar M. AHMED

Human Anatomy

Fall Semester

Week NO.1

Course name;

# Human Anatomy



# Course Description

This course provides a comprehensive study of the **structure and organization of the human body**, with a focus on systems relevant to clinical laboratory practice. Students will explore anatomical terminology, body planes, and the detailed morphology of major organ systems including the skeletal, muscular, cardiovascular, respiratory, digestive, urinary, reproductive, nervous, and endocrine systems.

# Course Objectives

- **Identify and describe** the major structures and organ systems of the human body using correct anatomical terminology.
- **Explain the functional relationships** between anatomical structures and their relevance to clinical laboratory procedures.
- **Recognize anatomical features** through models, diagrams, and histological slides.
- **Apply knowledge of human anatomy** to interpret laboratory findings in a clinical context.
- **Demonstrate understanding** of body systems relevant to common laboratory diagnostics (e.g., cardiovascular, urinary, endocrine).

# BODY SYSTEMS

**Nervous System**  
✓ Brain  
✓ Spinal Cord  
✓ Nerves

**Reproductive System (Female)**

**Fun Fact**  
The brain is the command center of the body and communicates and receives signals throughout the body. The brain weighs about 1.4 kg. The brain has two hemispheres: the left side is for analytical thought and the right side is for creative thought.

**Reproductive System (Male)**  
✓ Penis  
✓ Testicles

**Fun Fact**  
The testicles produce the hormone testosterone. Fertilization is when a sperm cell and an egg cell fuse to form a zygote. Sperm is the smallest cell in the male body.

**Skeletal System**  
✓ Bones  
✓ Ligaments

**Fun Fact**  
Bones provide support for the body as well as protect internal organs. The smallest bones are the ear ossicles. The largest bone is the femur. Humans are born with 270 bones, but some fuse with age resulting in 206 bones.

**Circulatory System**  
✓ Heart  
✓ Blood Vessels

**Fun Fact**  
The heart pumps blood throughout the body. Blood is transported to every part of the body by blood vessels. Blood carries oxygen and nutrients to the body's cells. The adult heart pumps about 5 liters of blood every minute.

**Endocrine System**  
✓ Hypothalamus  
✓ Pituitary Gland  
✓ Pineal Gland  
✓ Thyroid Gland  
✓ Parathyroid Glands

**Fun Fact**  
Endocrine glands secrete hormones that communicate with other parts of the body. The pancreas is an exocrine gland. It secretes digestive enzymes into the small intestine. The pituitary is the master gland, though it is only the size of a pea.

**Lymphatic System**  
✓ Tonsils  
✓ Thymus  
✓ Spleen

**Fun Fact**  
Also known as the immune system, it defends the body against invaders like bacteria and viruses. Lymph nodes can swell when there is an infection. Bone marrow creates white blood cells. T cells are matured in the thymus.

# BODY SYSTEMS

# ANATOMY

## Anatomy for Anaesthetists

NINTH EDITION  
Harold Ellis and Andrew D. Lawson

2 Skull  
4 Trachea  
6 Muscles  
8 Liver  
10 Blood Vessels  
12 Small Intestine  
14 Bladder  
16 Nerves

1 Kidneys  
13 Large Intestine  
15 Bones

3D Learning LLP



# COURSE CONTENT

Weeks	Topics
W1	Course overview
W2	<b>Introduction to Human anatomy</b>
W3	<b>Skeletal System</b>
W4	<b>Muscular System</b>
W5	<b>Nervous System</b>
W6	<b>GIT System</b>
W7	<b>Midterm exam</b>

# COURSE CONTENT

Weeks	Topics
W8	Cardiovascular System
W9	Respiratory System
W10	Digestive System
W11	Urinary System,
W12	Reproductive System
W13	Endocrine System
W14	Course review
W15+W16	Final Exam

# Course/Student Learning Outcomes

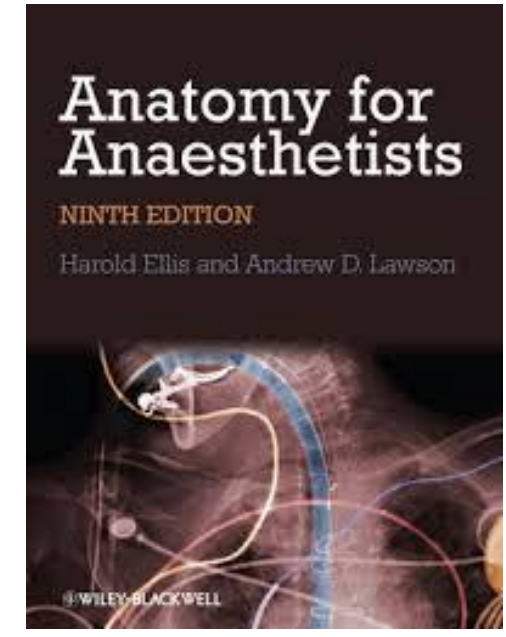
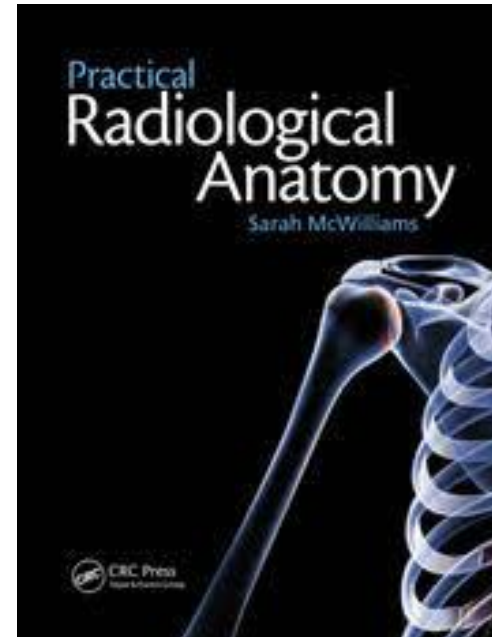
- Describe the differences between the anatomy and physiology of the human body.  
Students will be evaluated by lecture exams, laboratory exams, laboratory reports, and laboratory practical exams.
- Explain the different levels of structural organization that make up the human body.  
Students will be evaluated by lecture exams and laboratory reports.
- Describe the anatomical position of the human body. Students will be evaluated by lecture, laboratory exams, and laboratory reports..

# Course/Student Learning Outcomes

- Explain the directional terms and planes of the human body. Students will be evaluated by lecture, clinical exams, and medical reports.
- Describe the body cavities and regional quadrants. Students will be evaluated by lecture, laboratory exams, and laboratory reports.
- Describe the nature of atoms, chemical compounds, including organic and inorganic compounds. Students will be evaluated by lecture exams

# Course Reading List and References

PRINCIPLES OF ANATOMY & PHYSIOLOGY , 15th edition,  
Gerard J. Tortora and Bryan Derrickson, John Wiley and Sons,  
Hoboken, N.J. 2017 Volume I



## Student's obligation (Special Requirements):

- Students are expected to attend all lecture and discussion sessions.
- Students are expected to come to class on time to prevent disrupting the lecture and classroom activities.
- Any student who misses more than 2 scheduled discussion section meetings will lose points from their discussion section grade.

## Student's obligation (Special Requirements):

- Technology Policy: - Mobile device (e.g., smart phones, pagers, etc.) ringers will be turned off or placed on vibrate prior to class.
- Laptops and tablets can ONLY be used in the classroom to take notes, make calculations, and download/read course materials.
- Note that research suggests non-academic use of the Internet is associated with poorer learning outcomes.
- Complete homework assignments before the dates.

# Course Evaluation Criteria



