

**KING SAUD UNIVERSITY**  
**COLLEGE OF MEDICINE**

**ANATOMY DEPARTMENT**

.COURSE 112(Dental)

**Course Title: Human Anatomy and Histology**

**Course Symbol: 112 Anat.**

**Course Unit: 10 (3+7)**

**Learning Format (Instructional Hours):**

Lectures: 3 hours per week

Tutorial and Practical: 3X2 per week/students group

**Course Description:**

This course aims at enhancing study of the basic knowledge of Macroscopic Anatomy (Morphology), General embryology and Development of the face, neck and skull; and Microscopic Anatomy (Histology) for students of college of Dentist.

**Objectives:**

At the end of this course the students should be able to:

1. Describe the cell structure and the functions of its components.
2. Describe the structure of the basic body tissues.
3. Describe the macroscopic and microscopic structure of the organ system of the human body.
4. Describe anatomical terms, and human biology.
5. Describe the detailed anatomy of the head and neck.
6. Describe the Human general embryology and development of the face, mouth, palate, neck and skull.

**Teaching Format:**

1. Formal lectures.
2. Tutorial and practical sessions.

## Recommended Text Books:

- (1). The Developing Human.  
By MOOR and PERSAUD 7<sup>th</sup> Edition Saunders.
- (2). Clinical Anatomy for Medical Students.  
By RICHARD S. SNELL 7<sup>th</sup> Edition Lippincott Williams & Wilkins.
- (3). Basic Histology.  
By, Luiz Junqueira and Jose Carneiro Tenth Edition, 2003.
- (4). Essential of Human Anatomy & Physiology.  
By, Elaine N. Marieb Seventh Edition

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## Course Contents:

### (I) Morphology (Gross Anatomy):

#### 1. Introduction to Anatomy:

Anatomical terms, Terms of position and movements and body cavities.

#### 2. Skeletal system:

Classifications and functions of bones:

Axial skeleton: Main bones of the cranium and face; Vertebral column; intervertebral discs, curvatures of the vertebral column, general features of the vertebra, thoracic cage, sternum and classifications of ribs.

Appendicular skeleton, bones of the shoulder girdle (clavicle and scapula).

Main and general features of the bones of the upper and lower limbs.

#### 3. **Joints:**

Classifications of **joints**; Features of each type.

Morphological and functional classifications of synovial joints.

#### 4. Muscular system:

Classification of muscles in brief.

Introduction about skeletal muscles (origin, insertion tendon, and aponeurosis). Types of body movements, important muscles of face, neck, thorax, abdomen, and limbs.

#### 5. Nervous system:

Divisions of nervous system into central and peripheral nervous system, Classifications of neurons in brief.

Different parts of the brain (lobes of the cerebrum and cerebellum,

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Diencephalon, Brain stem, Spinal cord -Location extent, internal

- structure of segments in brief, cervical and lumbar enlargements, cauda equine.  
Meninges and C.S.F. in brief and lumbar puncture.  
Spinal and cranial nerves in brief.  
Autonomic nervous system in brief.
6. **Circulatory system:**  
Heart, location, shape, chambers, apex, and base. Pericardium, brief account of systemic and pulmonary circulations. Portal circulation. Valves of the heart. Major arteries and veins of the body. Arteries of the brain. Arterial pressure points, carotid, brachial, femoral and popliteal arteries.
7. **Lymphatic System:** Lymphatic groups, lymph nodes, lymph glands, and lymph vessels.
8. **Respiratory system:**  
Nose parts, structure and function. Para nasal sinuses and their functions. Pharynx-three parts, adenoids, palatine tonsils. Larynx-main cartilages, vocal cords, functions. Trachea and bronchi, pleura and lungs in brief.
9. **Digestive system:**  
Structure and functions of the digestive system, in brief. Oral cavity, pharynx, esophagus, stomach, small and large intestines. Accessory digestive organs- liver gall bladder pancreas and salivary glands.
10. **Urinary system:**  
Kidneys- location size shape, capsule, structure within the hilum. Parts of the ureter. Urinary bladder, Size, location, shape, trigone, internal and external sphincters. Urethra, differences between male and female urethra.
11. **Male reproductive system:**  
Testis -location, scrotal sac, tunica albuginea, somniferous tubules, rete testis, efferent ductules, functions of the testis. Duct system- epididymis. Ejaculatory ducts and urethra.  
Accessory glands- prostate, seminal vesicles and bulbo urethral glands.
12. **Female reproductive system:**  
Ovaries- size shape and location, hormones produced by the ovaries. Duct system; Fallopian tubes, uterus, parts and layers of the uterus and vagina.
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13. **Endocrine glands:**  
Pituitary, Thyroid, Parathyroid, Suprarenal, and Gonads.
14. **Head and Neck:**  
-**Skeleton** of the head and neck:

Skull, mandible, hyoid bone, and cervical vertebrae.

**Scalp:** layers, muscles, vessels, and innervations of the scalp.

**Face:** Muscles, vessels, and innervations of face.

**Posterior** triangle of the neck.

**Anterior** triangle of the neck.

**Sub occipital** triangle.

**Cranial cavity:**

Meninges, Dural venous sinuses, Emissary veins, and pituitary gland.

**Eye lids,** lacrimal apparatus.

**Orbit:** extra ocular muscles, sensory, and motor nerves, ophthalmic vessels.

**Temporal and infratemporal regions:** muscles of mastication, mandibular and maxillary nerves, and maxillary artery.

**Submandibular region:** Digastric muscle, submandibular salivary gland, and hyoglossus muscle.

**Deep structures** in front of the neck:

Thyroid, and parathyroid glands, trachea, esophagus.

**Major vessels** of the head and neck: Subclavian, common carotid, internal carotid, external carotid arteries, and internal jugular vein.

- **Cranial nerves.**
- **Cervical sympathetic chain.**
- **Scalene muscles.**
- **Prevertebral muscles.**
- **Oral cavity.**
- **Palate.**
- **Tongue.**
- **Nasal cavity and Paranasal sinuses.**
- **Pharynx.**
- **Larynx.**
- **Ear.**
- **Lymphatic drainage of the head and neck.**
- **Joints of the head and neck.**
- **X-ray of the head and neck.**

(II) Histology:

1. Introduction.
2. Cell:

- Nucleus: nuclear envelope, nucleoli, chromatin, nuclear matrix.
- Cell division (Mitosis).
- Plasma membrane: specializations of the plasma membrane.
- Cytoplasm: cytoplasmic organelles.

### 3. Epithelial tissue:

- Special characteristics of the epithelium.
- Classification of the epithelium
  - Simple epithelium.
  - Stratified Epithelium.
  - Glandular Epithelium.

### • Epithelial membranes.

### • **Glandular epithelium.**

### • **Intercellular Junctions.**

### 4. Connective tissue (C.T.):

- Common characteristics.
- Types:
  - 1- C.T. Proper.
  - 2- Cartilage.
  - 3- Bone.

### 5. Muscle tissue:

- Types:
  - 1- Skeletal Muscle.
  - 2- Cardiac Muscle.
  - 3- Smooth Muscle.

### 6. Nervous Tissue:

- Structure and function: Neurons and supporting cells.
- Structure of a peripheral nerve.
- Ganglia (Spinal, Autonomic)
- Nerve endings (Muscle spindle, Motor end plate)

### 7. Vascular system:

- Blood vessels:
  - Aorta
  - Medium sized artery
  - Medium sized vein
  - Blood capillaries.

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### 8. Lymphatic system:

- Lymph nodes.
- Tonsils.
- Thymus

### 9. Respiratory system:

- Nasal cavity.
- Larynx.
- Trachea.
- Lung.

### 10. Digestive system:

- Oral cavity: Tongue, major salivary glands.
- Stomach: Fundus.
- Small intestine: Duodenum.
- Large intestine: Colon.
- Liver, Pancreas

### 11. Endocrine system:

- o Pituitary gland, Thyroid gland, Parathyroid gland.

### (III) Embryology:

**Introduction** to embryology, male and female reproductive systems.

1. **General embryology:** Gametogenesis, Spermatogenesis, oogenesis, Ovarian cycle, and uterine cycle, fertilization, implantation, segmentation, morula, blastocyst, chorionic vesicle,.
2. Changes in the bilaminar germ disc (embryonic plate). Formation of the notochord- formation of the secondary embryonic mesoderm (intaembryonic mesoderm). Trilaminar germ disc. Paraxial, intermediate, lateral plate mesoderm.
3. Early changes in the ectoderm and formation of the neural plate, tube, and crest.
4. Folding of the embryo.
5. Fetal membranes: Chorion, Chorionic villi, Placenta, Yolk sac, Amnion, Allantois, Connecting stalk and umbilical cord.
6. Twinning.
7. **Special embryology:** Formation and derivatives of the pharyngeal arches, clefts and pouches.
  - Development of face, mouth, palate and tongue.
  - Development of the skull bones.

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### • **METHODS OF THE EVALUTION (COURSE 112):**

- o Students are assessed by written and practical examinations:
- o Two continuous assessments, a midyear examination., and a final

- comprehensive examination.
  - In addition students are assessed by 2 Quizzes (one for each semester),
  - One oral examination after the third CAE. And before the final examination.
  - Practical examinations are two one in the midyear and the other in the final.
  - **Examination Schedule and distribution of the marks:**
- **1-In the first semester:**
    - (1) **First quiz: In the sixth week, (Wednesday), five marks.**
      - Nine questions (3 Histology +5 Anatomy).
      - **8** best answer.
    - (2) **First continuous assessment examination: Ten marks**
      - **Comprehensive**, in the midweek of the semester, **Ten marks.**
      - **Thirty** questions (**10** histology +**20** Anatomy).
      - **30** best answer.
      - The first Continuous assessment Examination (**1<sup>st</sup>.CAE**): Contains all topic studied from the start of the academic year.
    - (3) **Midyear examination: (Second continuous assessment)**
      - **20 marks** (**15** Written+**5** Practical).
      - **Comprehensive**, in the end of the first semester.
      - Thirty questions (**10** histology +**20** Anatomy)
      - **30** best answer.
      - Practical examination: In Anatomy and Histology.
      - In the 2<sup>nd</sup> CAE: 1/3 of the questions are related to the topics of the 1<sup>st</sup> CAE; while 2/3 from the topics studied after the 1<sup>st</sup> CAE.
  - **2-In the second semester:**
    - (1) **First quiz: In the sixth week, (Wednesday), five marks.**
      - Nine questions (**3** Histology +**5** Anatomy).
      - **8** best answer.
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- (2) **Third continuous assessment examination: 10 marks**
    - **Comprehensive**, in the midweek of the semester, **10 marks.**
    - **Thirty** questions (**10** histology. +**20** Anatomy).
    - **30** best answer.

- The 3rd Continuous assessment Examination (CAE):  
Contains all topic studied from the start of the second semester
- (3)Final examination: 40 marks
  - **Comprehensive**, in the end of the second semester.
  - **40 marks (30 Written+10 Practical)**.
  - **Sixty** questions (**20 histology +40 Anatomy**)
  - **60** best answer.
  - Practical examination In Anatomy and Histology.
  - **One third** of questions are related to topics of the **first semester**; while the other **2/3** is from topics of the **second semester**.
  - **NB.**
  - It is **not** allowed to attend any of the above mentioned exams with the mobile phone.
  - Policy for Reset Exam for CAE or Quiz:

\* The absent student should apply an appeal to the chairman of Anatomy Department for the missed examination within **one week**.

\*Resit examination will be in the form of ESSAY WRITTEN EXAM for the absent student whose appeal was accepted by the Department of Anatomy.

\*No reset exam will be held for the absent student whose appeal was refused by the Department of Anatomy.

\***Recorded marks** for the missed exam will be: **ZERO**

# Practical program for 112

## First week

• Definition of Anatomy-Subdivision of Anatomy-Anatomical terms; position; planes; and movement.

Types of bones. The Skeleton; Parts, Axial and Appendicular skeleton.

Skull in brief; Vertebral column; (Cervical, Thoracic; Lumber; Sacral; And coccygeal. Thoracic cage; (Ribs; Sternum; Thoracic vertebrae).

**Shoulder girdle:** Clavicle; Scapula; Humerus; Radius, Ulna, and Bones of the Hand.

Pelvic girdle: Hip bone, Femur; Tibia, Fibula; and Bones of the Foot

## Second week

Types of Muscles; Smooth; Cardiac; and Skeletal muscles. Main character of each type. Arrangement of muscle fibers in skeletal muscles. Attachment of skeletal muscles. Main muscles of the trunk: Pectoralis major; Serratus anterior; Latissimus dorsi; Trapezius. Muscles of the anterior abdominal wall; External; Internal oblique; and transverses abdominis.

Main muscles of the upper limb: Arm Biceps brachii, Brachialis; Triceps. Forearm: Flexor and extensors.

Main muscle of the lower limb; Gluteus maximus, quadriceps femoris; Biceps femoris; Tibialis anterior; and posterior. Three compartments of muscles in the leg.

Revision on the body muscles

## Third week

Joints; Classification of joints: Fibrous; Cartilaginous; and Synovial, an example of each type.

Movements in each type.

Practical revision Skeleton.

## **Fourth week**

Classification of the nervous system; into central and peripheral. Parts of the brain; Cerebrum; Brain stem, Cerebellum. Covering of the brain, Pia; Arachnoid; and Dura maters. Spinal Cord . Region and number of segment of the spinal cord. Spinal nerves; and cranial nerves.

Revision on the Nervous system.

## **Fifth week**

Revision: Skeleton, Muscles.

Revision: Joints; Nervous system.

## **Sixth week**

Cardiovascular system. Heart : Chambers; and Valves. Epicardium; Myocardium; Endocardium. Arteries; especial types of arteries, examples. Veins and capillaries. Connection between capillaries and veins.

Revision cardiovascular system.

## **Seventh week**

Respiratory system: Nose; Nasopharynx; Larynx; Trachea; Lungs (difference between the two lungs); Pleura (Parietal and Visceral layers).

Revision on the respiratory system.

## **Eighth week**

### **FIRST CONTINUOUS ASSESSMENT EXAMINATION:**

## **Ninth week**

**Practical (I): Histology.**

**Practical (II): Morphology:** Urinary system: Kidneys; Ureters; Urinary Bladder; Urethra.

**Practical (III): Morphology:** Skull (I); Norma Frontalis; Verticalis; and Lateralis.

## **Tenth week**

**Practical (I): Histology.**

**Practical (II): Morphology:** Male and Female Genital Systems.

**Practical (III): Morphology:** Skull (II) Norma Occipitalis; Basalis Externa; and Interna.

## Eleventh week

**Practical (I): Histology.**

**Practical (II): Morphology:** Scalp: Extent; Layers; Innervations; Blood supply; Occipito-Frontalis muscle.

**Practical (III): Morphology:** Skull Revision

## Twelfth week

**Practical (I): Histology.**

**Practical (II): Morphology:** Face; Chief muscles of facial expression (Orbicularis Oculi; Orbital; Palpebral; and lacrimal parts) Buccinator muscle  
Innervations of the face; motor and sensory; Arteries of the face; Venous drainage of the face, Dangerous triangle of the face; Lymphatic of the face.

**Practical (III): Morphology:** Revision on the face.

## Thirteenth week

**Practical (I): Histology.**

**Practical (II): Morphology:** Eye lids and its layers. Lacrimal Apparatus: Lacrimal gland and its parts, Conjunctiva, Lacrimal puncti, lacrimal sac; and nasolacrimal duct.

**Practical (III): Morphology:** Revision on the eye lids and Lacrimal Apparatus.

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## Fourteenth week

**Practical (I): Histology.**

**Practical (II): Morphology:** Posterior Triangle; Boundaries; Division; Roof; floor; and contents. Nerves: 3 Trunks of Brachial plexus, lesser occipital Great Auricular; Transverse Cervical; Supraclavicular; and Spinal accessory.  
Arteries: 3<sup>rd</sup> part of Subclavian artery; suprascapular; and transverse cervical arteries.  
Subclavian vein; and external jugular vein.  
Inferior belly of Omohyoid muscle.

**Practical (III): Morphology:** Clinical importance of the Posterior triangle of the neck.

## Fifteenth week

**Practical (II): Morphology: Practical Revision**

**Practical (III): Morphology: Practical Revision**

**Practical program for 112**

**Second Semester**

**First week**

**Practical (I): Morphology:**

**Topic: Anterior Triangle of Neck (I).**

- **Describe** the boundaries of the anterior triangle, subdivisions of the triangle into 4 triangles (Submental, submandibular, carotid, and muscular).
- **Describe**, (in details) the Submental and submandibular triangles, boundaries, roof, floor and contents.
- **Describe** Sternomastoid muscle, origin, insertion, nerve supply, action and relations.
- **Practical (II): Morphology:**

**Topic: Anterior Triangle of Neck (II).**

- **Describe**, (in details) the carotid and muscular triangles, boundaries, roof, floor and contents.

- **Describe** the strap muscles, origin, insertion, nerve supply, and action of each.
- **Revise** the formation, and distribution of the Ansa Cervicalis.

## ▪ **Second week**

### **Practical (I): Morphology**

#### ○ **Topic: Cranial Cavity (I)**

- **Describe** the Norma basalis Interna, (the anterior, middle, and posterior cranial fossae).
- **Describe** all the foramina in the three fossae, and revise the structures passing through each of them.
- **Describe**, the Meninges (Dura, Arachnoid, and Pia matter)
- **Describe** the Dural folds (Falx, Cerebri. Tentorium Cerebelli, Falx Cerebelli, Diaphragma Sellae and cavum Trigeminalis).
- **Describe** the Dural venous Sinuses:
  - **Single**: Superior & inferior sagittal sinuses, straight sinus, and intercavernous sinuses.
  - **Paired**: Sphenoparietal, superior and inferior petrosal, transverse, sigmoid, occipital, and cavernous sinuses.

### **Practical (II): Morphology:**

#### ○ **Topic: Cranial Cavity (II)**

- **Describe** the Hypophysis Cerebri (pituitary gland), position, size, and its connection to the hypothalamus.
- **Describe** the middle meningeal artery, origin, course, branches, its surface anatomy, and its clinical importance.

- **Describe** the most important emissary veins and its clinical importance.
- **Describe** the Diploic veins.
- **Describe** the intracranial part of the internal carotid artery.

## **Third week**

### **Practical (I): Morphology:**

#### ○ **Topic: Orbit (I)**

**Describe** the bony orbit, roof, floor, medial & lateral walls, apex, margins, openings, and fissures.

**Enumerate** the contents of the orbit (Eye ball, Muscles extrinsic & intrinsic muscles, Nerves, sensory & motor, vessels, and lacrimal gland).

**Describe** the recti muscles (superior, inferior, medial and lateral) the oblique muscles (superior and inferior), their origin, insertion nerve supply and actions.

### **Practical (II): Morphology:**

#### ○ **Topic: Orbit (II)**

**Describe** the sensory orbital nerves: Optic, Ophthalmic division of the trigeminal nerves and its 3 branches (frontal, lacrimal & nasociliary).

**Describe** the motor nerves of the orbit (oculomotor, trochlear, & abducent).

**Describe** the Ciliary ganglion, its root, position and distributions.

**Describe** the ophthalmic artery, origin course, branches, and its clinical importance.

**Describe** the ophthalmic veins, their course, and communications.

## **Fourth week**

### **Practical (I): Morphology.**

#### **Topic: Parotid gland**

**Describe** the position, fascial capsule, surfaces, and relations, of the parotid gland.

**Describe** the structures within the parotid, facial nerve, retromandibular nerve and external carotid artery.

**Describe** how these structures enter and how they leave the gland.

**Describe** blood supply and innervations of the parotid gland.

**Describe** the parotid duct.

### **Practical (II): Morphology:**

#### **Topic: Osteology of the Mandible.**

**Describe** the body, and ramus of the mandible, surfaces, borders, mandibular foramen, mandibular canal, mental foramen, lingula mylohyoid line and groove.

**Describe** the muscles, and ligaments attached to the mandible.

**Enumerates** the vessels, nerves, and glands related to the mandible and the site of each of these structures.

**Describe** age changes of the mandible.

**Revision for: Anterior triangle of neck,  
Cranial cavity and orbit.**

**Fifth week**

**Practical (I): Morphology:**

**Topic: Temporal & Infratemporal fossae (I).**

**Describe** the boundaries of the temporal and infratemporal fossae, and its communications.

**Describe** the temporal fascia, muscles of mastication (Temporalis Masseter Medial and lateral Pterygoid), origin, insertion, nerve supply, and actions.

**Practical (II): Morphology:**

**Topic: Temporal & Infratemporal fossae (II).**

**Describe** the maxillary & Mandibular nerves, their course, relations and distributions.

**Describe** the chorda tympani.

**Describe** the otic ganglion, position, relations, and branches.

**Describe** the maxillary artery, origin, course, parts, and branches.

**Describe** the pterygoid plexus of veins, positions, and communications.

## Sixth week

### Practical (I): Morphology:

#### Topic: Submandibular region (I).

**Describe** the origin, insertion, nerve supply and actions of, Digastric (anterior & posterior bellies) & Stylohyoid muscles.

**Describe** the relations of the anterior & posterior bellies of digastric muscle.

**Describe** the submandibular salivary gland, its position, extent, parts (superficial and deep) surfaces, relations, blood supply, and its innervations.

### Practical (II): Morphology:

#### Topic: Submandibular region (II).

**Describe** the origin, insertion, nerve supply, and actions of the Mylohyoid, Hyoglossus, Genioglossus, Geniohyoid, and Styloglossus muscles.

**Describe** the Sublingual salivary gland position, relations, and its innervations.

**Describe** the origin, course, branches of the lingual and facial arteries.

## **Seventh week**

### **Practical (I): Morphology:**

#### **Topics: Thyroid and Parathyroid Glands.**

**Describe** the position, shape, capsule, lobes, surfaces, Isthmus, relations, blood supply, nerve supply, and lymphatic drainage of the thyroid.

**Describe** the nerves in danger during thyroidectomy operation and the effects of its lesions.

**Describe** the cervical part of the trachea, beginning, termination, relations, and blood supply.

**Describe** the cervical part of the esophagus, beginning, termination, relations, and its blood supply.

### **Practical (II): Morphology:**

#### **Topics: Cervical Vertebrae and Hyoid bone.**

**Describe** the general features of cervical vertebrae, **atlas, axis, typical, and seventh.**

**Describe** the articulation between, atlas and occipital condyles of the skull.

**Describe** the articulation between atlas and axis.

**Describe** the ligaments of **Atlas** (Transverse, anterior and posterior atlanto-occipital membranes).

**Describe** the ligaments related to the axis (Apical, Alar, upper end of the posterior longitudinal ligament, and membrana tectoria).

**Describe** the part of the Hyoid bone (body, two lesser cornu and two greater cornu).

**Enumerate** the structures attached to the different parts of the hyoid bone.

## **Eighth week**

### **Practical (I): Morphology:**

Topic: **Last four Cranial nerves.**

**Describe** the superficial attachment (from the medulla oblongata), course, type of fibers, and distributions of the glossopharyngeal, Vagus, accessory, and hypoglossal nerves.

**Discuss** the effect of lesion (of any) of the last 4 cranial nerves, and how you test the integrity of these nerves?

### **Practical (II): Morphology:**

Topics: **Scalene muscles, cervical plexus, and Cervical part of sympathetic chain.**

**Describe** the origin, insertion, nerve supply, relation, and actions of the scalene muscles (Scalenus, anterior, medius, and posterior).

**Describe** the formation, position, and branches (sensory & motor) of the cervical plexus.

**Describe** the cervical part of the sympathetic chain (superior, middle, and inferior ganglia), position, relations, and distributions of each.

## **Ninth week**

### **THIRD CONTINUOUS ASSESSMENT EXAMINATION:**

**Wednesday 10:00 am**

## **Tenth week**

### **Practical (I): Morphology:**

#### **Topic: Major Vessels of Head & Neck.**

**Describe** the Subclavian artery, origin, course, surface anatomy, parts, relations, and branches of each part.

**Describe** the common, external, and internal carotid Arteries, their origin, course, surface anatomy, relations and branches.

**Describe** the formation, surface anatomy, tributaries, and relations of the internal jugular vein.

**Revise** the formation, and contents of the carotid sheath.

### **Practical (II): Morphology:**

#### **Topics: Oral cavity, Palate, Tongue, and Pharynx.**

**Describe** the two parts of the oral cavity (vestibule and mouth cavity proper).

**Describe** the two types of teeth (deciduous and permanent) and the time of its eruptions.

**Describe** the bone forming the bony palate, the muscles of the soft palate, origin, insertion, nerve supply, and actions of each.

**Describe** the parts of the tongue (oral and pharyngeal) its surfaces (dorsal and inferior), its muscles (intrinsic and extrinsic) origin, insertion, actions, nerve supply (motor and sensory), and blood supply.

**Describe** the Pharynx, its extent, layers, parts (Nasopharynx, oropharynx, and Laryngeopharynx or Hypopharynx), muscles of the pharynx (superior, middle, and inferior constrictors, salpingopharynx, palatopharyngeus, and Stylopharyngeus) origin, insertion nerve supply, and actions. Pharyngeal plexus.

## **Eleventh week**

### **Practical (I): Morphology:**

#### **Topics: Nasal Cavity & Paranasal Sinuses, and Lymphatics of Head & Neck.**

**Describe** external nose, nasal cavity, roof, floor, medial, Lateral walls, vestibule, olfactory, respiratory regions, nasal conchae (superior, middle, and inferior), nasal Meatuses (superior, middle, and inferior), and sphenoidal recess.

**Describe** the Paranasal sinuses (maxillary, ethmoidal, Sphenoidal, and frontal), position, function, Drainage, lining, and its nerve supply.

**Describe** the maxillary sinus in details.

**Describe** the Lymphatics of the head and neck.

### **Practical (II): Morphology:**

#### **Topic: Larynx**

**Describe** the laryngeal skeleton; **single**: Thyroid, Cricoid, and Epiglottis; **paired**: Arytenoids, Corniculat and Cuneiform.

**Describe** the laryngeal cavity; vestibule, ventricle, infraglottic regions.

**Describe** the vocal folds (true and false) position, formation and function.

**Describe** the ligaments and membranes of the larynx.

**Describe** the muscles of the larynx, origin, insertion, actions, and nerve supply.

**Describe** sensory and motor innervations of the larynx and nerve injury of larynx.

**Describe** the blood supply and Lymphatics of the larynx.

## **Twelfth week**

### **Practical (I): Morphology:**

#### **Topic: Tempromandibular joint.**

**Describe** the articular parts, attachment of the capsule, Ligaments out side the capsule, the intra-articular disc, movement, muscles acting, nerve supply, and blood supply of the TMJ.

**Describe** the Atlanto- Occipital and Atlanto-Axial joints, type, articular parts, movement, and ligament related to these joints.

### **Practical (II): Morphology:**

#### **Topics: Radiology of Head & Neck.**

#### **Lymphatic of Head & Neck.**

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## **Thirteenth week**

**Practical (I): Morphology:**

**Practical revision**

**Practical (II): Morphology:**

**Practical revision**

**Course Cordinator  
112 Dental**

**Chairman,  
Anatomy Department**

Dr. Saeed Abuel Makarem

Dr. Mused Al Fayed



# Practical program for 112

## Second Semester

### First week

#### Practical (I): Morphology:

##### Topic: Anterior Triangle of Neck (I).

- **Describe** the boundaries of the anterior triangle, subdivisions of the triangle into 4 triangles (Submental, submandibular, carotid, and muscular).
- **Describe**, (in details) the Submental and submandibular triangles, boundaries, roof, floor and contents.
- **Describe** Sternomastoid muscle, origin, insertion, nerve supply, action and relations.

#### ▪ Practical (II): Morphology:

##### Topic: Anterior Triangle of Neck (II).

- **Describe**, (in details) the carotid and muscular triangles, boundaries, roof, floor and contents.
- **Describe** the strap muscles, origin, insertion, nerve supply, and action of each.
- **Revise** the formation, and distribution of the Ansa Cervicalis.

