Course Title: Introduction to Anatomy & Embryology.
Course Code: M112
Course Credits: 3 Hrs. (2 lectures & 1 Lab)
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M112 Introduction to Anatomy & Embryology
(3 credit hours: 2 hours lectures, 3 hours lab)
This is an introductory course in gross anatomy which provides medical students with knowledge of the anatomy of human body. The course also provides an overview of the very early development of human starting from gametogenesis going through the different embryonic stages. This course covers major birth defects in relation to human embryology.

General Objectives.
1. To have a sound knowledge of the basic human body structure, with a general overview of body systems to comprehend the Medical profession.
2. To have a sound basic knowledge of the general human development and major birth defects and abnormalities.

Instructional Methods:
1- Lectures - are interactive sessions to have a General overview of the objectives and discuss certain areas.
2- Lectures and/or handouts - are not to replace the main source of information, that is the textbook.
3- Labs are group activities where:
   A- Students prepare lists of structures to be identified.
   B- Supervised identification will be carried out.
   C- Group discussions are very much encouraged.

Attendance Policy:
• The student is expected to attend all classes and lab sessions.
• Repeated tardiness and leaving labs prior to dismissal is a set-up for failure.
• Absence in excess of 10% is defined as unsatisfactory progress and will be reported to the Dean’s office.
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<tr>
<th>Week 1</th>
<th>Title</th>
<th>General objectives</th>
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</table>
|        | **Introduction to the course.** | 1. Define human anatomy with its subdivisions.  
2. Define structural levels of organization.  
3. Medical terminology. |

|        | **Introduction to the course.** | 1. Anatomical position.  
2. Anatomical planes.  
3. Directional terms used in studying the human body.  
4. The principles employed in studying the human body |

| Week 2 (commencing 21 / 2 / 10) | Skeletal system | 1. Types of bones.  
3. Classification of bones.  
4. Naming of individual bones and their major characteristics. |

| Axial skeleton | 1. The skull, overview.  
2. Different approaches to the study of the skull  
3. Cranial and facial bones with their main feature.  
4. Major foramina in cranial fossae. |

| Week 3 (commencing 28/ 2/ 10) | Appendicular skeleton. | 1. Shoulder girdle and bones of the upper limb, main feature of each bone.  
2. Pelvic girdle and bones of the lower limb, main features of each bone |

| Articulations. | 1. Types and classification of joints  
2. Types of synovial joints  
3. Brief description of, shoulder, hip and knee joints |

| Week 4 (commencing 7/ 3 / 10) | Muscular System I | 1. Definition of muscles and movement.  
2. Major muscles of the head and neck regions.  
3. Expression, mastication, cervical muscles moving the skull. |

| Muscular System II | 1. Muscles of the trunk, shoulder muscles, pectoral region, thoracic wall, abdominal wall, gluteal region. |

| Week 5 (commencing 14/ 3/ 10) | Muscular System III. | 1. Muscles of the arm and, forearm.  
2. Muscles of the thigh and leg |

| Cardiovascular System I. | 1. The heart and pericardium.  
2. The great vessels associated with the heart  
3. Systemic and pulmonary circulation |

| Week 6 (commencing 21 / 3 / 10) | Cardiovascular System II. | 1. Bvs of the head and neck.  
2. Bvs of the thoracic, and abdominal aorta.  
3. Bvs of the upper limb.  
4. Bvs of the lower limb. |

| Respiratory System. | 1. Upper respiratory tract organs.  
2. Conductive regions: nose, nasopharynx, larynx, trachea and bronchial tree. |
### Week 7 (commencing 28 / 3 / 10)

**Digestive System I.**
1. Divisions of the GIT
2. Oral cavity and pharynx
3. Oesophagus and stomach.

**Digestive System II.**
1. The intestinal tract.
2. Rectum and anal canal.
3. Liver, pancreas and spleen.

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### Week 8 (commencing 4 / 4 / 10)

**Urinary System.**
2. Ureter.
4. Urethra.

**Male reproductive System.**
1. Male reproductive organs.
2. Male genital organs.

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### Week 9 (commencing 11 / 4 / 10)

**Female reproductive System.**
1. Female reproductive organs, ovary, uterus
2. Female genital organs.

**Nervous System I.**
1. Overview of the CNS & PNS
2. Topography of the brain and spinal cord.
3. Meninges

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### Week 10 (commencing 18/ 4 / 10)

**Nervous System II.**
1. Cranial nerves.
2. Spinal nerves.
3. Plexuses summary of, brachial and lumbosacral

**Gametogenesis.**
1. Definition of gametes, somatic and sex cells.
2. Male and female gametes.
4. Spermatogenesis and oogenesis.

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### Week 11 (commencing 25 / 4 / 10)

**First week of development**
1. Fertilisation, morula and blastula formation.
2. Implantation.
3. The endometrium.

**2nd week of development.**
1. Major events in this week.
2. Formation of bilaminar germ disc.
3. Yolk sac, amnion, chorion.

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### Week 12 (commencing 2/ 5 / 10)

**3rd week of development.**
1. Major events in this week.
2. Formation of trilaminar germ disc.

**Embryonic period.**
1. Major events occurring during the period from week 3-8.

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### Week 13 (commencing 9 / 5 / 10)

**Fetal period.**
1. Major events occurring during this period, until birth.
2. Divisions of pregnancy into 3 semesters.
3. Following and measuring the normal fetal growth.

**Fetal membranes & placenta.**
1. Formation of the normal placenta.
2. Formation of fetal membranes
Week 14 (commencing 16/5/10)

| Birth defects | 1-major cause of congenital anomalies leading to birth defects with concentration on environmental preventable factors. |

Week 15 (commencing 23/5/10)

| Practical exam week |

Week 16 (commencing 30/5/10)

| Practical exam week |

Evaluation:

<table>
<thead>
<tr>
<th>Exam</th>
<th>Day</th>
<th>Date</th>
<th>Credit</th>
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<tbody>
<tr>
<td>1st</td>
<td>To be announced</td>
<td>Week 8</td>
<td>30%</td>
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<tr>
<td>Practical</td>
<td>According to the group</td>
<td>Week 15</td>
<td>30%</td>
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<tr>
<td>Final- Theory</td>
<td>To be decided by Registry office.</td>
<td></td>
<td>40%</td>
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Textbooks:
   By: Gerard J Tortora 11th edition
2. Human embryology
   Before we are borne, by Mooore & Persaud 7th edition
5. www.anatomy on the net.com