UNIVERSITY OF BAGHDAD
COLLEGE OF MEDICINE
DEPARTMENT OF ANATOMY

HUMAN STRUCTURE AND FUNCTION - 2
MODULE
Workbook 2014-2015

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Assessor: Dr. Mahmood Mish'al
INTRODUCTION:
This handbook contains much of the information which the student might need concerning this course in relation to the theory lectures, & the practical sessions of HSF1 module, in addition to the way of mark calculation & assessments.
The module is concerned in delivering knowledge in the Gross & Functional Anatomy both in theory (LGT) & practical sessions in the dissecting room on real body prosections & on virtual anatomy tables, with discussion of some related topics with students especially concentrating on the clinical application of these knowledge (How can the student use these knowledge in the medical practice).
Lower limbs will be the material of this course, as Anatomy of other regions is distributed on other modules as related.
**Aims of the module:**
The module aims at building the knowledge of the student in Gross & Functional Anatomy of the Lower Limbs, with correlation to some clinical conditions as related to the Anatomy of the region concerned.

**Objectives of the module:**
1. To describe the bone structure & articulations in the peripheral skeleton
2. To define muscles, vessels & nerves in the limbs
3. To recognize muscle functions & movements in the limbs
4. To relate structures to each other in sectional views.
5. To correlate these knowledge to some clinical cases when required.

**The teaching staff:**
1- Professor Nawfal K. Al-Hadithi.
2- Professor Malak A. Taha.
3- Assistant prof. Kais A. Hussein
4- Assistant Prof. Ma'an H. Hussein
5- Assistant lecturer Mahmood Mish'al
6- Assistant lecturer Esam Tarek
7- Dr. Ahmed Sa'ad
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<tr>
<th>L No.</th>
<th>Title</th>
<th>Objectives</th>
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| 1     | General overview  
          The femoral triangle |  
          To describe a general overview of the lower limbs  
          To define the femoral triangle, boundaries, floor & contents  
          To describe the femoral canal & femoral hernia  
          To list the muscles of the front of the thigh |
| 2     | Femoral vessels & nerve  
          The adductor compartment of the thigh |  
          To Define the femoral vessels & nerve & list their branches  
          To localize femoral pulses  
          To identify the adductor compartment of the thigh  
          To describe the adductor canal, boundaries & contents |
| 3     | Gluteal region |  
          To describes the gluteal region  
          To list its muscles, vessels & nerves  
          To specify the site of injection  
          To demonstrate some important pathologies affecting the structures in the region |
| 4     | The hamstring compartment  
          Popliteal fossa |  
          To list the muscles of the flexor compartment of the thigh  
          To describe the course of sciatic nerve in the thigh  
          To define the popliteal fossa, boundaries & contents  
          To find the popliteal pulse |
| 5     | The calf |  
          To define the compartments of the leg  
          To describe the calf muscles & layers  
          To follow the tibial nerve & posterior tibial artery in the leg  
          To relate the deep & superficial veins of the leg & determine their pathology |
| 6     | Front of the leg  
          Peroneal compartment  
          Dorsum of the foot |  
          To describe the extensor & peroneal muscles  
          To define the anterior tibial vessels  
          To explore the superficial & deep peroneal nerves & main pathologies affecting them in the region  
          To specify the ligaments in the region |
| 7     | The sole |  
          To describe layers of the sole  
          To define the main nerves & vessels in the sole  
          To list some important ligaments & tendons in the region  
          To describe foot arches |
| 8     | Lower limb joints 1 |  
          To classify the joints relative to structure & shape  
          To describe the anatomy of the hip joint  
          To describe the ankle joint |
| 9     | Lower limb joints 2  
          Lymphatic drainage of LL |  
          To describe he knee joint, ligaments, structure & neurovascular supply  
          To list main groups of lymph nodes in the LL |
## Practical sessions in Lower Limb

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| 1     | Bones of the lower limb              | o To define specific bones of the LL  
o To memorize their main parts & attachments                                                                                                           |
| 2     | Extensor compartment of the thigh     | o To list the muscles of the compartment  
o To follow the femoral vessels & nerve  
o To define the femoral triangle                                                                 |
| 3     | Adductor compartment of the thigh     | o To list the 5 adductor muscles  
o To explore the obturator vessels & nerve  
o To define the adductor canal                                                                 |
| 4     | Gluteal region                       | o To identify the layers of the G region  
o To localize the various muscles  
o To demonstrate vessels & nerves in the region  
o To follow structures passing through the greater & lesser sciatic foramina |
| 5     | Flexor compartment of the thigh      | o To identify the hamstrings  
o To follow the sciatic nerve & its branches  
o To demonstrate the perforating vessels  
o To identify the popliteal fossa, boundaries & contents |
|       | Popliteal fossa                      |                                                                                                                                                                                                             |
| 6     | The calf                             | o To identify the superficial & deep muscles  
o To follow the tibial nerve with its branches  
o To describe the anterior tibial artery & its branches                                                                 |
| 7     | Front of the leg                     | o To describe the extensor & peroneal compartment  
o To list their muscles  
o To follow the neurovascular bundles                                                                 |
|       | Dorsum of the foot                   |                                                                                                                                                                                                             |
| 8     | The sole                             | o To identify layers of the sole  
o To follow the plantar vessels & nerves  
o To describe different ligaments in the region                                                                                               |
| 9     | Joints                               | o To explore the knee & hip joints  
o To demonstrate their capsules  
o To explore their ligaments                                                                                                                     |
| 10    | Workshop in radiology of lower limb  | o To identify bones of the lower limb in plain X ray films  
o To describe some pathological conditions affecting them  
o To demonstrate some sections in the LL                                                                                      |
| 11    | SGLS                                 |                                                                                                                                                                                                             |
Workshops:
At the end of each practical term, a workshop in the radiology of the lower limb will be established.

General objectives of workshops:
1- To increase student self learning & communication with each other.
2- To relate knowledge gained on cadaveric bones to radiological points as this is the most important field where they will get use of these knowledge.
3- To describe some simple abnormal bone films as in fractures & dislocations.
4- To examine some sectional radiological films (MRI & CT scans) as related to their gross knowledge.

Tutorials:
At the beginning of each practical session, a brief tutorial in which a case scenario is prepared (almost fitting the subject of that session) will be discussed with students for about 20 minutes time.
This will raise the attention of the student to the major points which he should be care of during that session (and related ones).

The participation of students in discussion & their attitude & way of thinking in the workshops & the tutorials will be taken in consideration during the continuous progress evaluations of the module.
Assessment:
Assessment of the student will be done depending on the following criteria:

- **Continuous progress assessment;** in which the student's knowledge, behavior, attendance, the way of thinking … will be evaluated on intervals throughout the academic year in the practicals, tutorials & workshops, 10 marks will be given according to this evaluation.

- **End module exam;** done at the end of each module similar to the final exam, this exam ranks 10 marks of the total 100 of the module.

- **Formative theory exam** will be held in the middle of the term to let students expose to the theory exams & to assess the pattern & amount of their learning in the course in order to diagnose pitfalls & get rid of them as possible.

- **The final summative exam** will be done at the end of each term. & will be divided into two sets:
  
  1- **OSPE (Objective Structured Practical Exam);** will be held at the end of the practical term. Assessment includes stations, some of them are cadaveric spots, others are bones, others are X-rays of normal bones, manikins may be used if needed. 20 marks will be given for each exam.

  2- **Theory exam;** as case scenarios & multiple choice questions, 60 marks will be given to this exam.
**Recommended readings:**

Students can get benefit from the wide variety of Anatomy books, atlases & articles online. The following books in their latest versions are mostly recommended:


**Advice:**

Students who have interest in Anatomy can consult the moderator or assessor or any of the teaching staff to direct them to do certain researches (optional), & this will have a reflection on the mark of CPA.

*Professor Dr.*

*Nawfal K. Al-Hadithi*

*The moderator of HSF modules*