Course Specifications
Valid in the academic year 2018-2019

Musculoskeletal System and Skin (D000131)

Course

Lecturers in academic year 2018-2019
D'Herde, Katharina  GE05  lecturer-in-charge
Audenaert, Emmanuel GE38  co-lecturer
Bacher, Klaus  GE05  co-lecturer

Offered in the following programmes in 2018-2019
Bachelor of Science in Medicine  11  A

Course size  (nominal values; actual values may depend on programme)
Credits 11.0  Study time 330 h  Contact hrs 93.0 h

Course offerings and teaching methods in academic year 2018-2019
A (semester 2)  Dutch  PDE tutorial 2.5 h
  seminar: practical PC room classes 2.5 h
  practicum 18.75 h
  lecture 53.75 h
  guided self-study 13.75 h
  clinical lectures 2.5 h

Teaching languages
Dutch

Keywords
myology, biomechanics, arthrology, histology, anatomy of the musculoskeletal system, embryology, osteology

Position of the course
The aim is to familiarize the student with the normal structure and function of the musculoskeletal system and skin in preparation for the pathology taught in year 4 and 3 respectively.

Contents
• embryology: from fertilised oocyte to primitive body plan and special embryology of the musculoskeletal system
• histology of muscles-tendons-connective tissue-cartilage-bone-skin
• myology, arthrology, osteology
• vascularisation and innervation of the axial skeleton, upper and lower limbs, back, neck, and abdominal wall
• specific biomechanics of muscles and joints
• biomechanics of walking, standing, running
• radiology of the musculoskeletal system
• illustrative clinical lectures related to the musculoskeletal system

Initial competences

Final competences
1 Explain possible anomalies through insights in the normal development of the musculoskeletal system and skin.
2 Recognise and describe the specific histology of the skin and the different tissues of the musculoskeletal system.
3 See the relation between a radiological image and the anatomical structures.
4 Explain the normal functioning of muscles, nerves and joints through insights in the

(Arranged) 1
anatomy of the musculoskeletal system.
5 Apply the different principles of physics on the musculoskeletal system.
6 Analysing and resolving elementary clinical cases related to the musculoskeletal system.
7 To be able to recognize details on the human skeleton and to be able to orient individual bones.

Conditions for credit contract
Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract
This course unit cannot be taken via an exam contract

Teaching methods
Guided self-study, lecture, PDE tutorial, practicum, clinical lectures, seminar: practical PC room classes

Extra information on the teaching methods
Practicum osteology: supervised self study combined with blended learning module osteology
Practicum histology: home study and response lecture (virtual microscopy)
Practicum anatomy: Studying prosection specimens under supervision of academic staff.
Tutorial: Apply the knowledge and insights on clinical cases and this in group under supervision of a tutor.

Learning materials and price
Syllabi:
• Histology:
  Text and figures (Minerva) Powerpoint presentations with figures and histological photos (Minerva)
  Practicum notes (Minerva) and virtual pictures of histological slides on Athena (OlyVIA)
  A-books:
  • Netter Atlas of Human Anatomy. ICON Learning Systems, 3th ed. (facultative)
  • Larsen's Human Embryology. 5th ed, Churchill Livingstone, Schoenwolf, Bleyl, Brauer
  Additional didactical data (illustrations, slides,...) are made available via the digital teaching platform (minerva.ugent.be)

References
B-book:

Course content-related study coaching
  teaching staff can be reached by email for questions

Evaluation methods
  end-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period
  Written examination with open questions, written examination with multiple choice questions

Examination methods in case of periodic evaluation during the second examination period
  Written examination with open questions, written examination with multiple choice questions

Examination methods in case of permanent evaluation
  Oral examination

Possibilities of retake in case of permanent evaluation
  examination during the second examination period is possible

(Approved)
Extra information on the examination methods

Oral examination osteology immediately after the practical session week

Calculation of the examination mark

The weighing of the different parts is in proportion to the contact time in the course. The final score is calculated through the weighted average. The standard setting is applied for the multiple choice questions.

Within the evaluation 3 parts are distinguished.
part 1: anatomy and embryology making up 60%,
part 2: histology and radiology making up 20%
part 3: tutorials and biomechanics making up 20%

The final result is determined as follows: * The student achieves at least 50% for each part: the final result is the weighted arithmetic mean of the three parts; * The student does not achieve at least 50% for each part:
1. The number of deficits = 1 or 2, the final result remains the weighted arithmetic mean of the three parts; 2. The number of deficits > 2, then the final result is reduced by a number y. The number y is obtained by adding the number of deficits and reducing this total by 2 (Deficit point(s) are the number of points that a student has too short to reach 10 at 20, and this for each part)

To pass, the student has to attend the PC examination of Radiology as well as the oral and written examination of respectively osteology and prosection

(Approved)