



وحدة ضمان الجودة

الخطة الاستراتيجية ٢٠١٧/٢٠١٨



جامعة أسوان - كلية الطب

Physiology 1 (containing biophysics) Course Specifications

Code: AMED 08

Second year of M.B.B.Ch. Program

2017-2018

University: Aswan

Faculty : Medicine

Department: Medical physiology

1- Basic information

- **Title:** Physiology 2
- **Code:** Amed 08
- **Academic year / Level:** second year of M.B.B.Ch
- **Department offering the course:** Department of Medical physiology
- **Lecture:** 150 hours
- **Tutorial/practical:** 60 hours
- **Total:** 210 hours

2- Overall aims

By the end of the course, students should be able to:

- To provide the student with the knowledge about the normal structure, and function of the body and of each of its major systems.
- To enable the student to describe the integration of physiological functions, which characterize the performance of the human body as a whole in health.
- To provide the student with the knowledge about the physiological principles underlying disease states that aids in interpretation of symptoms.

3- Intended Learning Outcomes (ILOs)

A- Knowledge and understanding:

By the end of the course, students should be able to:

A1- Define the different components of the CNS, their functions, its activity (sensation. motor and reflex action) and effect of lesions in different components of CNS

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- A2- Describe functional structures of the organs concerned with the special senses, their functions, receptors of sensations, their pathway and their localization in the cerebral cortex
- A3- Describe nature of hormones, general mechanism of their actions and functions, dysfunctions.
- A4- Define hormones secreted by the male and female reproductive systems, their functions, their role in different aspect of the reproductive process e.g. menstrual cycle, pregnancy, parturition and lactation
- A5- Describe the functional structure of the kidney, renal blood flow, filtration through glomerulus, absorption, mechanism of urine formation, Micturation reflexes, regulatory functions of the kidney.
- A6- Define the metabolic rate, BMR and factors affecting it, mechanism of regulation of body temperature, underlying principles of obesity and starvation
- A7- Identify the need to engage in lifelong learning

B- Intellectual skills

By the end of the course, students should be able to:

- B1- Correlate the normal functions of different components of the CNS and the effect of their lesions.
- B2- Apply the normal pathways of the special sense and predict the defect in their functions
- B3- Comprehend the effects of pathophysiology of endocrinology.
- B4- Comprehend the effects of pathophysiology of male and female reproductive systems.
- B5- Correlate mechanism by which kidney regulate body function.
- B6- Comprehend the importance of general metabolism in control body weight & know mechanisms of heat loss and heat gain.

C- Professional practical skills

By the end of the course, students should be able to:

- C1- Perform the systemic examination of the CNS (cranial nerves, sensory, motor, cerebellum and vestibular apparatus).

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C2- Perform some visual tests (corneal, light & accommodation reflexes, visual acuity, color vision and visual field)

C3- Perform a preliminary function tests of common endocrinal glands

C4- Perform testicular function tests, detection of ovulation time, pregnancy test.

C5- Perform Kidney function test.

C6- Measure the basal metabolic rate and body temperature

D- General and transferable skills

By the end of the course, students should be able to:

D1- Communicate with staff members and their colleagues, manage time efficiently by preparing and displaying a scientific research topic.

D2- Present information clearly with efficient time management

D3- Evaluate their and others' work and accept the limitation in his/her knowledge

D2- Display physiological data in a graphical form

D3- Communicate using available presentation aids (Overhead projectors or Data show) to present clearly and effectively a scientific topic

4- Course contents

Topics	No. of hours	Lectures	Tutorial /Practical
Metabolism	14	14	-
Endocrine	38	20	18
Reproduction	28	20	8
Kidney	23	15	8
CNS	71	55	16
Vision	16	10	6
Hearing	12	8	4
smell&taste	8	8	-
Total	210	150	60

5- Teaching and learning Methods

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- 1- Lectures for knowledge and intellectual skill outcomes using data shows, overhead, slide projector
- 2- Discussion sessions for general skills using rooms for small groups teaching
- 3- Practical sessions and case study classes with active participation of students for gain intellectual, practical and communication skills including laboratory demonstration, practical training .
- 4- Tutorials in the class using data show
- 5- Students asked to do small research presentations or poster and discuss it with their classmates and with the lecturers. This helps them gain the general skills outcomes (D 1-D5).

Facilities used for teaching and learning

- 1- Lecture halls
- 2- Rooms for small groups teaching
- 3- Audio visual aids (data shows, overhead, slide projector....etc)
- 4- Computers and internet facilities
- 5- Faculty library
- 6- Central library of the Assiut University
- 7- Skills laboratory

6- Teaching and learning Methods for students with learning difficulties:

- Lectures
- Practical classes
- Tutorials
- Special low price classes outside the teaching schedule

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7- Student assessment

A- Methods

- 1- Written exams (short essay and MCQ) to assess knowledge and intellectual skills (a1-a6, b1-b6)
- 2- Oral exam to assess knowledge, general and intellectual skills (a1-a6, b1-b6)
- 3- Practical exam to assess intellectual, practical and general skills (c1-c6, d1-d4)

B-Assessment schedule

Assessment 1: Periodic assessment by the end of the	10th week
Assessment 2: Periodic assessment by the end of the	15th week
Assessment 3: Midterm assessment by the end of the	24th week
Assessment 4: Final practical exam by the end of the	30th week
Assessment 5: Final written exam by the end of the	30th week
Assessment 6: Final oral exam by the end of the	30th week

C-Weighting of assessments

Periodic and midterm assessments	20 %
Final written exam.	50%
Final oral exam.	20%
Final practical exam.	10%
Total	100%

8- List of references

- 1- Course Notes:
Notes on Physiology and practical book by staff members of Physiology department
- 2- Essential Book (Text Books):
Textbook of Medical Physiology Arthur C. Guyton, John E. Hall
- 3- Recommended books:
Review of Medical Physiology William F. Ganong

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Human Physiology: From Cells to Systems Lauralee Sherwood

4- Periodicals and Web sites

American journal of Physiology, <http://www.med-ed-online.org/>

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Head of Department: Dr Mona Sedeek

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