



مركز الاعتماد
وَضْمَانُ الجُودَةِ
ACCREDITATION & QUALITY ASSURANCE CENTER



The University of Jordan

Accreditation & Quality Assurance Center

COURSE Syllabus

Nursing physiology
(0501105)

1	Course title	Nursing physiology
2	Course number	(0501105)
3	Credit hours	Three credit hours
	Contact hours	42
4	Prerequisites/corequisites	0304101, 0304111
5	Program title	Nursing
6	Program code	
7	Awarding institution	University of Jordan
8	Faculty	Medicine
9	Department	Physiology and Biochemistry
10	Level of course	Bachelor
11	Year of study and semester (s)	2016
12	Final Qualification	-
13	Other department (s) involved in teaching the course	-
14	Language of Instruction	English
15	Date of production/revision	2022/2023

16. Course Coordinator:

Dr. Faisal Mohammad
Faculty of Medicine, Room 111.
Variable office hours according to timetable of the coordinator, please refer to the coordinator.
Ext 23482
fmmmed@ju.edu.jo

17. Other instructors:

Dr. Yanal Shafagoj, Dr. Mohammad Khatatbeh, Dr. Alaa, , Dr. Salim Khraisha, Dr. Ebaa Alzayadneh
 Variable office hours according to timetable of the staff member, please refer to the instructor.
yanals@ju.edu.jo, malessa@ju.edu.jo, lzghoul@ju.edu.jo, salimkh@ju.edu.jo, e.zayadneh@ju.edu.jo

18. Course Description:

This course is designed to provide students with an understanding of the function & regulation of the human body and physiological integration of the organ systems to maintain homeostasis. Course content will include neural & hormonal homeostatic control mechanisms, as well as study of the blood and body fluid, musculoskeletal, cardiovascular, respiratory, digestive, urinary, autonomic nervous system, central nervous system, special senses, reproductive, and endocrine organ systems.

19. Course aims and outcomes:

A- Aims:

The primary goal of this course is to offer a presentation of the function of the major organs and organ systems of the human body. It is expected that the student understand the unique role of each organ and organ system in maintaining health. Students should be able to describe the functions of each major organ and when appropriate define the role of physiological functional units.

Upon completion of this course the student should be knowledgeable in the following areas of bodily function: Integration of the organ systems to maintain constancy of the internal environment, regulation of homeostasis by neuronal, endocrine, and local chemical messengers, role of the Autonomic Nervous System in regulating organ function besides a basic understanding of the function of the human body and the physiological mechanisms of the operation of the nervous, respiratory and cardio-vascular systems, blood and body fluid, musculoskeletal, digestive, urinary, reproductive, and endocrine organ systems.

B- Intended Learning Outcomes (ILOs):

Successful completion of the course should lead to the following outcomes:

- 1- Describe the function of cell membrane and proteins of plasma membranes and modalities of transport.
- 2- Describe the role of plasma membrane in excitable tissues and changes in ion currents according to membrane potentials
- 3- Study the contractile mechanisms of skeletal and smooth muscle cells.
- 4- Classify the functional organization of the Autonomic nervous system and its general effects on body systems, besides studying the neurotransmitters and functional receptors of the ANS and its relation with suprarenal glands.
- 5- Understand blood cells and body fluids composition and functions of all these elements including plasma proteins.
- 6- Explain the mechanisms of heart functions including heart muscle and conductive tissue and vessels and their hemodynamics.
7. Explain the functions of respiratory system and mechanism of respiration
8. Describe the basic interactions that occur between several endocrine and neuroendocrine systems. Feedback control of endocrine secretions, hormone metabolism, and metabolic and physiologic responses to various hormones. review of the endocrine and neuroendocrine interactions that regulate puberty, the menstrual cycle, pregnancy, fertility, male and female physiological function and behavior.
9. Explain the general control of the volume and composition of body fluids attributed to kidney functions, control of glomerular filtration, nephron function, and endocrine regulation of the kidney.
10. Understand the digestive mechanism and the function of all organs within the gastrointestinal tract.
11. Recognize the main component of the nervous system and their function, Review the physiology of sensory receptors and different sensory pathways, explain the functional structures of the organs concerned with the special senses, including vision, auditory, vestibular, smell and taste, and their functions, receptors of sensations, and their pathway, describe the motor system including reflexes of spinal cord, motor tracts, and the motor regulators such as the basal ganglia and cerebellum, point out the neural basis of higher cortical functions such as the language, personality, learning and memory as well as sleep and alertness.

Topic	No of lectures	Pages	Instructor	Achieved ILOs	Evaluation Methods	Reference
Introduction, Transport mechanisms	2	8-12, 63-78	Department of Physiology Professors	1	MCQ	Principles of <u>Anatomy and Physiology</u> , 14 th edition 2014 , by G.J. Tortora and B. Derrickson.
	5	410-424 291-319		2,3	MCQ	As above
Body fluids and Blood	5	661-683 1024-1030		5	MCQ	As above
Cardiovascular system	8	702-716 737-752		6	MCQ	As above
Autonomic Nervous system	1	523-541		4	MCQ	As above
Respiratory system	3	854-876		7	MCQ	As above
Gastrointestinal system	4	893-896 899-932		10	MCQ	As above
Endocrine system	3	615-650		8	MCQ	As above
Reproductive system	2	1042-1074		8	MCQ	As above
Renal system	3	991-1012 1024-1037		9	MCQ	As above
Central Nervous system	5	442-449 460-469 473-502 546-568 503-514		11	MCQ	As above
Special and Somatic senses	3	572-606		11	MCQ	As above

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

- MCQ exams designed to achieve ILO's of the course.
- Midterm 30%, Quiz 20%, Final 50%

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

- 1- Didactic lectures presented in power point slides will be provided for students.
- 2- Assigned chapters from the text book are expected to be read by students

23. Course Policies:

A- Attendance policies: According to rules and regulation of the University, please refer to University of Jordan Students Handbook (page 13 and 14) <http://registration.ju.edu.jo/Documents/daleel.pdf>

B- Absences from exams and handing in assignments on time: According to rules and regulation of the University, please refer to University of Jordan Students Handbook (page 16 and 17) <http://registration.ju.edu.jo/Documents/daleel.pdf>

C- Health and safety procedures: lab work related health and safety measures are given to students by the instructors in every lab session.

D- Honesty policy regarding cheating, plagiarism, misbehavior:

According to rules and regulation of the University, please refer to University of Jordan Students Handbook (page 62-70) <http://registration.ju.edu.jo/RegRegulations/نظام%20تاديب%20الطلبة.pdf>

E- Grading policy:

Rules are preset by the Faculty and Department Councils.

F- Available university services that support achievement in the course:

Main University Library, School of Medicine library, Medical Skills lab for illustration and simulation, School of Medicine Lab of Physiology.

24. Required equipment:

Not applicable

25. References:

A- Required book (s), assigned reading and audio-visuals:

1. Principles of Anatomy and Physiology by Tortora and Derrickson,
14th edition

B- Recommended books, materials, and media:

1. Physiology, by: Robert Berne & Matthew Levy, 7th. ed.
2. Best and Taylors Physiological Basis of Medical Practice
by: John B. West, 12th. ed 1990.
3. Human physiology, by: Lauralee Sherwood, last edition.

26. Additional information:

None

Name of Course Coordinator: -----Signature: ----- Date: -----

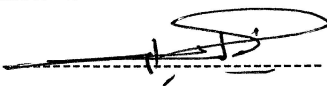
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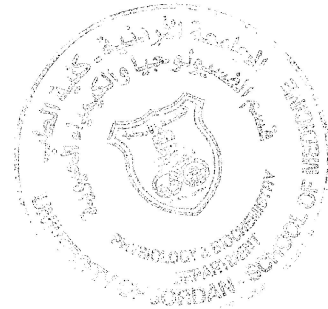
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2022, 2023