



مركز الاعتماد
وإضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER



The University of Jordan

Accreditation & Quality Assurance Center

COURSE Syllabus

ILO dental physiology 1

-0541228

1	Course title	Physiology 1
2	Course number	0541228
3	Credit hours (theory, practical)	5 (4 theory + 1 practical)
	Contact hours (theory, practical)	90
4	Prerequisites/corequisites	0304101, 0304111, 0304102
5	Program title	Doctor in Dentistry and Surgery
6	Program code	DDS
7	Awarding institution	University of Jordan
8	Faculty	Faculty of Dentistry
9	Department	
10	Level of course	Bachelor
11	Year of study and semester (s)	Second year, fall semester
12	Final Qualification	-
13	Other department (s) involved in teaching the course	-
14	Language of Instruction	English
15	Date of production/revision	2018/2019

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. Loai Zghoul, 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, l.zghoul@ju.edu.jo, salimkh@ju.edu.jo, e.zayadneh@ju.edu.jo

18. Course Description:

The core lectures are organized around a systems approach to the study of physiology, concentrating on each basic structural and functional unit of the human body. Emphasis is on understanding how cellular and organ systems function and how they are integrated and regulated by the body to maintain homeostasis.

Human Physiology includes cellular, muscle and nerve physiology, cardiovascular, and gastrointestinal. It is primarily a lecture-based course.

1. 19. Course aims and outcomes:

2.

A- Aims:

The main aim of this course is to introduce human physiology to students from cellular to systemic level.

B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to

1. Describe cell membrane physiology and identify its role in maintaining cell function.
2. Identify the origin and regulation of electrical activity in the body.
3. Explain action potential development.
4. Demonstrate the biological and molecular basis of muscle contractility.
5. Describe muscle mechanics.
6. Identify body fluid compartments composition, regulation, and their role in maintaining body homeostasis.
7. Identify blood components and explain their functions
8. Describe electrocardiology and analyse electrocardiograms (ECG)
9. Describe cardiovascular mechanics
10. Understand hemodynamics of circulation
11. Explain arrhythmia and conduction defects
12. Identify cardiac output and its regulation
13. Compare and contrast between capillary, arterial and venous circulation
14. Identify the physiological basis for gastrointestinal secretion, motility and absorption
15. Describe regulatory mechanisms of gastrointestinal secretion, motility and absorption.
16. Describe mechanisms for regulation of food intake and body energetic.

20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
4. Introduction and Cell Physiology (2 Lectures)	5. 1	6. Physiology section	7. Cell membrane physiology and its role in maintaining cell function	8. MCQ exams	9. Textbook of medical physiology : Guyton
10. Membrane Electrophysiology (4 Lectures)	11. 1-2	12. Physiology section	Origin and regulation of electrical activity in the body.	13. MCQ exams	14. As above
15. Nerve Cell Physiology (2 Lectures)	16. 2	17. Physiology section	18. Action potential development	19. MCQ exams	20. As above
21. Muscle Physiology (4 Lectures)	22. 3	23. Physiology section	24. Biological and molecular basis of muscle contractility 25. Muscle mechanics	26. MCQ exams	27. As above
28. Blood And Body	29.	30. Physiology	Body fluid	31. MCQ	32. As above

Fluids (15 Lectures 13-27)		gy section	compartments Blood components and their functions	exams	
33. CVS (20 Lectures: 28-48)	34.	35. Physiolo gy section	Electrocardiolog y - ECG Cardiovascular mechanics Hemodynamics Arrhythmia and conduction defects Cardiac output and control Capillary and venous circulation 36.	37. MCQ exams	38. As above
39. G.I.T Physiology (11 Lectures : 49- 58)	40.	41. Physiolo gy section	Physiological basis for gastrointestinal secretion, motility and absorption 42. 43. Regulation of gastrointesti nal secretion, motility and absorption. Regulation of food intake and body energetics	44. MCQ exams	45. As above

46.

47.

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.
- 3- Lab sessions throughout the course demonstrate the practical and clinical aspect of the theoretical part.

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 40%, Practical (Lab) 10%, Final 50%

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%20تأديب%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:

Lab coat for laboratory sessions

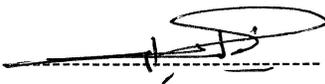
25. References:

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

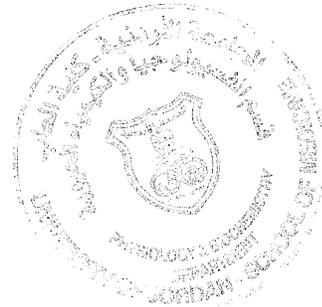
Textbook of medical physiology by: Guyton and Hall Textbook of Medical Physiology, 13th Edition
By John E. Hall, PhD

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.

Name of Course Coordinator: -----Signature: ----- Date: ----- Head
of curriculum committee/Department: ----- Signature: -----
Head of Department: ----- Signature: -----
Head of curriculum committee/Faculty: *د. نبال سنان* Signature:  -----
Dean: -----Signature: -----

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2022, 2023