

TISHK INTERNATIONAL UNIVERSITY
FACULTY OF APPLIED SCIENCE
Department of MEDICAL ANALYSIS,
-2022 Spring
Course Information for MA 204 SYSTEMATIC PHYSIOLOGY

Course Name: SYSTEMATIC PHYSIOLOGY

Code	Regular Semester	Theoretical	Practical	Credits	ECTS
MA 204	2	2	2	3	4

**Name of Lecturer(s)-
Academic Title:** Zhikal Omer - MSc

Teaching Assistant: Zhikal Omer

Course Language: English

Course Type: Main

Office Hours Monday 2:00 pm - 4:00 pm

Contact Email: zhikal.omer@tiu.edu.iq

Tel:07508297397

**Teacher's academic
profile:** -----

Course Objectives: This course provides students with an understanding of the basic physical and chemical principles that underlie physiological processes. Several biological systems are considered, including respiratory, circulatory, digestive and metabolic, thermoregulatory, osmoregulatory, renal, musculoskeletal, and sensory. The weekly laboratory session will complement the lecture, mainly by providing hands-on experience in observation, data collection, measurement.

**Course Description
(Course overview):** Systemic Physiology will focus on the function and operation of individual body systems. This course aims to build on the previous knowledge of students and explore the human body in more detail. As medical Analysts, a knowledge of human physiology is necessary for the diagnosis, analysis and treatment of diseases and a detailed understanding is of significant advantage.

COURSE CONTENT

Week	Hour	Date	Topic
1	2	6-10/2/2022	introduction to cardiovascular physiology
2	2	13-17/2/2022	Circulatory physiology
3	2	20-24/2/2022	Blood pressure
4	2	27/2-3/3/2022	Microcirculation, Filtration, Lymphatics
5	2	6-10/3/2022	Respiratory system
6	2	27-31/3/2022	Physical principles of gas exchange
7	2	3-7/4/2022	.
8	2	10-14/4/2022	Midterm Exam
9	2	17-21/4/2022	.
10	2	24-28/4/2022	Gastrointestinal physiology
11	2	8-12/5/2022	Chemical digestion and absorption
12	2	15-19/5/2022	Sensory and vision
13	2	22-26/5/2022	Reproductive physiology
14	2	29/5-2/6/2022	Review
15	2	5-9/6/2022	Final Exam

COURSE/STUDENT LEARNING OUTCOMES

- 1 Create new idea about physiological processes that happen inside human body
- 2 Understand and be able to communicate the normal physiology and pathophysiological conditions associated with dysfunction of various organ systems.
- 3 Communicate scientific and Physiological concepts clearly, concisely and logically.

COURSE'S CONTRIBUTION TO PROGRAM OUTCOMES

(Blank : no contribution, I: Introduction, P: Profecient, A: Advanced)

Program Learning Outcomes

Cont.

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|----|--|---|
| 1 | Evaluate clinical laboratory data by interpreting laboratory results and relating the data to various disease states. | I |
| 2 | apply principles of evidence-based medicine to determine clinical diagnoses. | P |
| 3 | apply the basic principles of gross and microscopic anatomy, physiology, biochemistry, immunology, microbiology/virology. | A |
| 4 | formulate and implement acceptable treatment modalities to various disease states. | A |
| 5 | use technology effectively in the delivery of instruction, assessment, and professional development. | I |
| 6 | exhibit essential employability qualities by demonstrating laboratory safety, analyzing laboratory results, and displaying professional conduct. | I |
| 7 | exhibit organizational skills, accountability, and ethical behavior. | |
| 8 | apply skills needed in operating laboratory equipment for testing, assessing quality assurance for lab equipment, and adhering to standard safety practices in the laboratory environment. | |
| 9 | apply problem-solving and decision-making skills. | |
| 10 | apply and promote health policies and regulatory standards in the field career. | |
| 11 | develop research in the field of medical analysis using qualitative and quantitative methods. | I |

Prerequisites (Course Reading List and References):

General Biology, human physiology

Student's obligation (Special Requirements):

Attendance in lecture is expected. You are responsible for everything covered, mentioned, discussed and displayed in class. If you miss a class, get a classmate's notes as my notes will not be available. You cannot excel in this course if you do not come to class.

Course Book/Textbook:

1. Physiology at a glance. by Jeremy P.T. Ward and Roger W.A. (2017). 2. Physiology (Board Review Series)4th edition by Linda S Costanzo (2007). 3. Human Physiology by German and Stanfeild (2006). 4. Physiology by Stuart Ira Fox, 11th edition (2009). McGraw Hill Higher Education

Other Course Materials/References:

1. Textbook of Medical Physiology by Guyton (2010) 2. Review of medical physiology (2010) by Ganong

Teaching Methods (Forms of Teaching):

Lectures, Exercises, Presentation, Seminar, Project, Assignments, , ,

COURSE EVALUATION CRITERIA

Method	Quantity	Percentage (%)
Participation	1	5
Quiz	2	2.5
Project	1	5
Midterm Exam	1	30
Practical Exam	1	10
Final Exam	1	40
Total		95

Examinations: Essay Questions, Multiple Choices, Short Answers, Matching, , ,

Extra Notes:

ECTS (ALLOCATED BASED ON STUDENT) WORKLOAD

Activities	Quantity	Workload Hours for 1 quantity*	Total Workload
Theoretical Hours	16	2	32
Practical Hours	16	2	16
Final Exam	1	12	12
Participation	1	2	2
Quiz	2	4	8
Project	1	8	8
Midterm Exam	1	10	10
Practical Exam	1	4	4
Total Workload			92
ECTS Credit (Total workload/25)			3.68

Peer review

Signature:

Name:

Lecturer

Signature:

Name:

Head of Department

Signature:

Name:

Dean