



COURSE SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course.	Dialysis Fellowship(fD)
(2) Part of the programme.	Semester 1
(3) Date of last approval of programme specification by Faculty council	9/8/2016
(4) Course title.	Renal physiology
(5) Course code.	fD1
(6) Total teaching hours.	3 credit hours

(B) Professional information

(1) **Course Aims.**

The broad aims of the course are as follows.

- Provide in-depth knowledge of basic renal structure, microcirculation and physiology.
- Develop updated concepts about physiology of body fluids
- Provide a sound understanding of different transport mechanisms along the nephron
- Emphasize on renal regulation of acid-base balance, osmolality and electrolytes.

(2) Intended Learning Outcomes (ILOs):

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

a4 Recognize different physiological functions of the kidney

B- Intellectual skills

B2 Use personal judgment for analytical and critical problem solving and seek out information.

C- Professional/practical skills

D- Communication & Transferable skills

(3) Course content: Compulsory

Course title	Code	Hours/ Lectures	Total Teaching Hours	Credit Hours
Renal Physiology Structure and function of the kidneys Renal microcirculation Physiology of body fluids Glomerular filtration and renal blood flow Renal transport mechanisms: NaCl and water reabsorption along the nephron Regulation of body fluid osmolality: regulation of water Balance Regulation of potassium balance Regulation of calcium and phosphate homeostasis Regulation of acid-base balance	fd1	3 3 5 5 6 6 5 6 6	45	3

(4) Teaching methods: Online

- 4.1: Online lectures with discussions, quizzes
- 4.2: Online problem -solving case scenarios

(5) Assessment methods:

Online MCQs and EMQs exam after end of 1st semester

(6) References of the course:

Textbooks

- Renal Physiology – Mosby Physiology Monograph Series
- Comprehensive clinical nephrology textbook

Periodicals

- Nephron physiology
- American journal of physiology–Renal physiology

Websites

- American society of cell biology
- American society of transplantation
- The Nephron Information Center

(7) Facilities and resources mandatory for course completion.

Intranet with a vast learning material

Program specification and handbooks

A very rich library and computer laboratories

Course director:

Prof.: Hussein shaeshaa

Course co-ordinators:

Dr. Ahmed Mohammed Abd El Wahab

Dr. Mostafa Abdel Salam

Date: