SYLLABUS 2019-2025 INT			
Module/course name:	**Nephrology**	**Module code**	LK.3.031
Faculty:	**Faculty of Medicine with English Division**		
Major:	Medical		
Specialty:			
Level of study:	I (Bachelor studies) ☐ II (Master studies) ☐ integrated Master studies **X** III (Doctoral studies) ☐		
Mode of study :	full-time **X** part-time (extramural) **X**		
Year of study:	I ☐ II ☐ III ☐ IV **X** V ☐ VI ☐	Semester :	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7 **X** 8☐ 9☐ 10☐ 11☐ 12☐
Module/course type:	obligatory **X** elective ☐		
Language of instruction:	Polish ☐ Foreign **X**		

Form of education	**Hours**
Lecture	**5**
Seminar	13
Laboratory class	27
E-learning	
Practical class	
Internship	

Student's work input (participation in class, preparation, evaluation, etc.)	**Student's hourly workload**
1. In class	**45**
2. Student's own work	**45**
Summary of the student's workload	**90**
ECTS points for module/course	**3**

Educational objectives:
The aim of this course is to provide an interactive comprehensive up to date management of real and challenging clinical cases in nephrology . During nephrology courses students will be training in the diagnosis and medical management of kidney disease - acute kidney injury and chronic renal failure, glomerular and vascular disorders, tubular/interstitial disorders, mineral metabolism, clinical pharmacology, hypertension, treatment of acid-base and electrolyte disturbances, nephrolithiasis (kidney stones), epidemiology and nutrition.

Students get the opportunity to see some diagnostic procedures as native kidney biopsies with ultrasound guidance and therapeutical procedures as placement of temporary dialysis catheters, placement of tunnelled haemodialysis catheters and placement of peritoneal dialysis catheters. Students will be taught how to plan and monitor dialysis therapy.

The matrix of learning outcomes for module/ subject with reference to verification methods of the intended educational outcomes and forms of instruction:

Learning outcome	A student who has obtained a credit for the module/course has the knowledge/skill to:	Methods of verifying the achievement of	Form of instruction

code		the intended learning outcomes:	* provide the symbol
E.W7. 5) 9)	knows and understands the causes, symptoms, diagnostic principles and therapeutic procedures in respect to most common internal diseases in adults and their complications; circulatory disorders, including ischaemic heart disease, diseases of kidneys and urinary tract, including acute and chronic renal failure, glomelurar disorders, interstitial renal disorders, renal cysts, urolithiasis, urinary infections, malignancies of the urinary system, and in particular, cancers of the urinary bladder and kidney. water-electrolyte and acido-basic disturbances, dehydration, hyperhydration, electrolyte disorders, acidosis and alkalosis.	written exam - *SSQ* - *MCQ* - *MRQ* - *matching test* - *true/false test*	Lab class/ Seminar
E.U1.	carries out history taking in adult patient	Mini-CEX	Lab class
E.U3.	performs complete and organ-system specific physical examination of adult patient	Mini-CEX	Lab class
E.U7.	assesses patient` s general condition, level of consciousness and orientation	Mini-CEX	Lab class
E.U12.	performs differential diagnostics of most common diseases in adults and children	Mini-CEX completion of a given assignment - project - presentation	Lab class /Seminar
E.U13.	assesses and describes somatic and mental condition of patient;	Mini-CEX	Lab class
E.U14.	identifies life-threatening conditions	Mini-CEX completion of a given assignment - project - presentation	Lab class
E.U15.	identifies conditions after alcohol, drug and other stimulant abuse;	Mini-CEX	Lab class
E.U16.	develops plan of diagnostic, therapeutic and prophylactic procedures;	Mini-CEX completion of a given assignment - project - presentation	Lab class / Seminar
E.U17.	analyses the possible adverse effects of drugs and their interactions;	Mini-CEX	Lab class/ Seminar

E.U18.	proposes individualization of the routine therapeutic directives and other treatment methods in view of lack of effectiveness or contraindications to standard therapy;	Mini-CEX completion of a given assignment - project - presentation	Lab class
E.U24.	interprets laboratory test results and identifies reasons for deflections from normal	Mini-CEX	Lab class / Seminar
E.U29. 1) 2) 7)	can perform basic medical procedures, including: temperature (body surface and core), pulse rate and noninvasive arterial pressure measurements vital signs monitoring using a cardiomonitor, pulsoxymetry, urinary bladder catheterization in men and women, stomach probing, stomach lavage, enema	Mini-CEX	Lab class
E.U32.	can plan specialist consultations	Mini-CEX completion of a given assignment - project - presentation	Lab class / Seminar
E.U38.	can keep patient` s medical records.	Mini-CEX	Lab class
K01	have the ability to make contact with a sick person	An extended observation by a supervisor/tutor, 360-degree assessment	Lab class/
K02	Actively participate in the analysis of the discussed clinical cases	An extended observation by a supervisor/tutor, 360-degree assessment	Lecture/ Lab class/Seminar
K03	Follow ethical standards in dealing with patients.	An extended observation by a supervisor/tutor, 360-degree assessment	Lab class

EXAMPLES OF METHODS VERIFYING THE ACHIEVEMENT OF THE INTENDED LEARNING OUTCOMES:

In terms of knowledge:

Oral exam (*non-standardized, standardized, traditional, problem-based*).

Written exam – the student produces/identifies answers (*essay, report; structured short-answer questions /SSQ/; multiple choice questions /MCQ/; multiple response questions /MRQ/; matching test; true/false test; open cloze test*).

In terms of skills:

practical exam; Objective Structured Clinical Examination /OSCE/; Mini-CEX (mini – clinical examination); completion of a given assignment; project, presentation.

In terms of social competences:

A reflective essay; an extended observation by a supervisor/tutor; 360-degree assessment (feedback from teachers, peers, patients, other co-workers); self-assessment (portfolio included).

It is possible to conduct some of the education in a remote form with the use of existing education platforms (e.g. Moodle, MS-Teams)

Course content:

Lectures and seminars: (optionally in remote form with the use of existing education platforms (e.g. Moodle, MS-Teams)

- Tubulointerstitial nephritis
- Nephrolithiasis
- Acute kidney injury
- Urinary tract infections
- Chronic kidney disease
- Kidney transplantation
- Kidney and arterial hypertension
- Glomerulopathies

Laboratory class: (optionally in remote form with the use of existing education platforms (e.g. Moodle, MS-Teams)

- Symptomatology of kidney diseases.
- Diagnostic methods in nephrology: physical examination, blood tests, urine analysis, glomerular filtration rate (GFR), imaging studies, renal biopsy
- Urinary tract infections: definition, epidemiology, prevention, treatment
- Nephrolithiasis: epidemiology, etiology, diagnosis, management.
- Primary glomerulopathies: epidemiology, etiology, diagnosis, management.
- Acute kidney disease. epidemiology, etiology, diagnosis, management.
- Chronic kidney disease. Risk factors. Nephroprotection. Complications of CKD: anaemia, Ca-P imbalance, cardio-vascular disease, malnutrition

Obligatory literature for Lectures and seminars:

- Kumar and Clark's Clinical Medicine, wydanie 10-te, 2020
- McMaster Textbook of Internal Medicine

Obligatory literature for Lab classes:

- Kumar and Clark's Clinical Medicine, wydanie 10-te, 2020

Complementary literature for Lab classes:

- Harrison's Principles of Internal Medicine, wydanie 20-te,
- Harrisons Manual of Medicine, wydanie 20-te

Requirements for didactic aids

- Laptop computer
- Multimedia projector or large monitor (>40")

Conditions for obtaining a credit for the subject:

The overall course grade will be determined by the results of in-class activity, student presentation and final exam, which verify if the student acquired the knowledge of the information as stated in the syllabus

Methods of evaluation:

The overall course grade will be determined by the results of 1 comprehensive written test, which verifies if the student acquired knowledge.
A passing score confirms the satisfactory fulfillment of course requirements and is based on student's class attendance and their active participation in required medical activities.

Exams

Questions for the tests are drawn from reading, lecture and lab activities.

- Regular classroom attendance, participation in class discussion and studying according to class objectives contribute to student's success on the exams.
- To pass the course, each student should gain results of 60% or higher after the final written test.

Moreover, the student has to acquire the required skills of medical patient, as well as complete the necessary class attendance. There are no exceptions to these rules.

- Tests are taken on scheduled dates and times. If any emergencies prevent a student from meeting deadlines, the coordinator should be notified before the test date. A different test (format and/or questions) is substituted for the missed one according to the same rules used to the prior test.
- At the practical examination (which takes place during 1-2 final classes) the student is judged based on examination skills, professional behavior, attitudes, and capability of communication with the patient. Examination of a patient consists of history taking and physical examination, followed by a tentative diagnosis, presentation of a plan for further care, and a suggestion for treatment.

Comprehensive Final Exam

20 multiple-choice single answer questions for the final tests are drawn from reading, lecture and lab activities.

The final tests will be conducted with the use of the Moodle platform, while simultaneously using MsTeams software (student observation) [detail description of e-exams in Recommendations of the Vice-Rector for Educational Affairs]

- The test takes place during the final class.
- The student is informed about the criteria of evaluation before approaching the test, additionally, the student has the right to have an insight into their paper within 7 days from the release of test results.

The grading scale is listed below (applies to the first test and the re-take test):

95-100% 5.0 (very good)
90-94% 4.5 (better than good)
80-89% 4.0 (good)
70-79% 3.5 (quite good)
60-69% 3.0 (satisfactory)
<60% 2.0 (unsatisfactory)

Attendance:

Attendance is required. Student must participate in seminars, lectures and lab sessions according to the schedule. During the semester only 1 absence is possible. All excused absences from class must be reported. Participation performance will not be penalized for excused absences. In the case of absences with excuse in the form of seminars, labs or practical classes, the content of classes the student missed shall be made up according to the schedule given by the instructor.

Tardiness:

Students are expected to arrive at class on time. Students that arrive after class begins will not be permitted in the classroom until the break. Two late arrivals will be considered as one complete absence.

Uniforms:
Students are expected to attend class in white lab coat and lab shoes (otherwise student won't be able to participate in the lab). Students are not permitted to wear heavy outside coats or jackets to any lab.
Using mobile phones during the lectures, seminars and labs is forbidden.

Missed exams/Assignments/Make-up policy:
Student not present to take an assigned examination may receive a grade 2 (unsatisfactory) for that examination. The student may be allowed to make-up an examination under the following circumstances:
- Absence is due to serious illness/hospitalization of the student or an immediate family member. Documentation by a health care provider will be required at the time the student requests a make-up exam for the day of illness.
- Absence is due to family emergency, verified by a note from the professional person in attendance.
- Absence is due to a death in the immediate family. Documentation will be required.
- An absence that the faculty and/or Department Head deems as unavoidable.

The name and address of the department/~~clinic~~, where the course is taught (module/course); contact details (phone number/ email address):

Katedra i Klinika Nefrologii
Samodzielny Publiczny Szpital Kliniczny nr 4
20-954 Lublin, ul. Jaczewskiego 8
oddzial.nefrologii@spsk4.lublin.pl
phone: 81 7244537

Course Coordinator:
Michał Dragan

Names of the teacher/teachers conducting classes:
- Anna Steć
- Michał Dragan
- Agata Betlejewska
- Izabela Zakrocka
- Andrzej Swatowski
- Agnieszka Grzebalska

Dean's signature

KIEROWNIK
KATEDRY I KLINIKI NEFROLOGII
UNIWERSYTETU MEDYCZNEGO W LUBLINIE
Prof. dr hab. n. med. Wojciech Załuska