



UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYN
Faculty of Medicine

Course syllabus – part A

Course code: 48SJO-NUCMED

Cycle: 2025

ECTS: 0.50

Nuclear Medicine

Nuclear Medicine

SUBJECT MATTER CONTENT:

Classes -

Lecture -

TEACHING OBJECTIVE:

The aim of the subject of nuclear medicine is to present the basics of diagnostics and radioisotope therapy (scintigraphy) used in everyday clinical practice. Classes are about presentation the current state of knowledge in the field of nuclear medicine with the development of analytical capabilities in students approach to functional (scintigraphic) diagnostics with the potential use of methods radioisotope in broadly understood imaging diagnostics as well as in therapy with the use of radioisotopes. The current state of knowledge on this subject will be synthetically presented to students, with intention deepen their knowledge and develop the possibility of a very broad, uninhibited approach to clinical issues related to diagnostic imaging. These classes will be an introduction to the potential the use of scintigraphic methods in the metabolic assessment of pathological changes, responses to the applied ones various methods of therapy and visual "follow-up".

DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY:

Symbols for outcomes related to the discipline:

M/NMA_P7S_WG+++++, M/NMA_P7S_KR+, M/NMA_P7S_UW+

Symbols for outcomes related to the field of study:

K.2.+, K.4.+, K.5.+, KA7_KR1+, B.U1.+, B.U2.+, B.U3.+, KA7_UW4+, KA7_WG2+, F.W10.+

Symbols for outcomes related to the field of study:

W1 - The student knows and understands the physical basis of selected imaging techniques in medicine and the principles of radiological protection, including radioisotope, functional and structural diagnostics in nuclear medicine

W2 - The student knows and understands the issues of modern imaging, in particular: 1) radiological symptomatology of basic diseases, 2) instrumental methods and imaging techniques used to

Legal acts specifying learning outcomes:
311/2023;

ISCED Code: -

Status: -

Group of courses: -

Discipline: Medical Sciences

Language: ANG

Classes: Lecture (10h); Classes (5h);

Program: Medicine

Phase: Kierunek lekarski trzeci rok (oferta w jęz. angielskim dla obcokrajowców)

Profile: -

Form: full-time

Level of studies: uniform master's studies

Introductory subject: Anatomy, human histology, physiology and biochemistry

Prerequisites: General knowledge of: anatomy, human histology, physiology and biochemistry, based on the knowledge acquired at the beginning of the process educating medical students is not specialist knowledge required narrow medical specialties

Organized by the unit:

Coordinators:

Jarosław Ćwikła, jaroslaw.cwikla@uwm.edu.pl

perform medical procedures, 3) indications, contraindications and preparation of the patient for particular types of imaging and contraindications for the use contrast agents

U1 - The student is able to use the knowledge of the laws of physics to explain the influence of external factors, such as temperature, acceleration, pressure, electromagnetic field and ionizing radiation, on the body and its elements

U2 - The student is able to assess the harmfulness of the dose of ionizing radiation and adhere to the principles of radiological protection

U3 - The student is able to calculate the molar and percentage concentrations of compounds and the concentrations of substances in isosmotic, single and multi-component solutions

U4 - The student is able to understand the possibilities and needs of using e.g. scintigraphic examinations, radioisotope diagnostics in the diagnosis and treatment of selected oncological diseases, including indications and contraindications for diagnostic tests and treatment;

K1 - The student is ready to be guided by the good of the patient

K2 - The student is ready to take action against the patient based on ethical principles, with awareness of social conditions and limitations resulting from the disease

K3 - The student is ready to see and recognize his own limitations and self-assess educational deficits and needs

K4 - The student is ready to observe and apply the principles of academic and professional ethics and professional image, academic, social and professional professionalism

Symbols for outcomes related to the field of study:

Classes - ['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'U3', 'K3', 'U4', 'K4'] - Exercises on the basics of radioisotope diagnostics, specialized nuclear medicine procedures

Lecture - ['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'U3', 'K3', 'U4', 'K4'] - Multimedia presentation

FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:

Lecture (Part in the discussion) - ['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'U3', 'K3', 'U4', 'K4'] - Attendance and activity at lectures

Classes (Competention test) - ['W1', 'U1', 'W2', 'U2', 'U3', 'U4'] - Competency test - the condition for passing is to obtain 60% of correct answers

Literature:

1. Clinical Nuclear Medicine, HJ Biersak LM Freeman; Springer; 2011; Pages: ; Tome: ; Required literature
2. Mannula of Nuclear Medicine, Mayo Clinic; Churchill Livingstone; 1996; Pages: ; Tome: ; Required literature
3. Clinical Nuclear Medicine, GJR Cook, MN Maisey, KE Britton V. Chengazi; Hodder Arnold, London; 2007; Pages: ; Tome: Tom t. by 4th; Required literature

4. Nuclear Medicine Review, Official magazine Polskiego Towarzystwa Medycyny Nuklearnej; Via Medica; 2022; Pages: ; Tome: ; Complimentary literature
5. European Journal of Nuclear Medicine and Molecular Imaging, Official magazine Europejskiego Towarzystwa Medycyny Nuklearnej; Springer; 2022; Pages: ; Tome: ; Complimentary literature



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Detailed description of ECTS credits awarded - part B

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1. Contact hours with the academic teacher:

- participation in: Lecture	10 h
- participation in: Classes	5 h
- consultation	2 h
Total:	17 h

Independent work of a student:

Total: 0 h

1 ECTS credit = 25-30 h of an average student's work, number of ECTS

ECTS Points = 17 h : 25 h/ECTS = 0.50 ECTS

Average: 0.50 ECTS

- including the number of ECTS credits for contact hours with the direct participation of an academic teacher - 0.50 ECTS pts

- including the number of ECTS credits for hours of independent work of a student - 0.00 ECTS pts