*Załącznik do zarządzenia nr 166*

*Rektora UMK z dnia 21 grudnia 2015 r.*

**Formularz opisu przedmiotu (formularz sylabusa) na studiach wyższych,**

**Doktoranckich, podyplomowych i kursach doszkalających**

1. **General description of the subject**

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| --- | --- |
| **Field name** | **Commentary** |
| **Subject name (Polish and English)** | **Kardiochirurgia****Cardiac Surgery** |
| **Department** | **Department of Cardiac Surgery****Faculty of medicine****Nicolaus Copernicus University in Toruń****Ludwig Rydygier Collegium Medicum in Bydgoszcz** |
| **Unit** | **Wydział Lekarski Collegium Medicum UMK** **Kierunek lekarski****Studia jednolite magisterskie stacjonarne**  |
| **Subject’s code** |  |
| **ISCED code** |  ***0912*** |
|  **ECTS points** | **1,8** |
| **Credit method** | **Pass with grade** |
| **Language** | **English** |
| **Credit repetition** | **No** |
| **Subjects’ group** | **Module -Cardiovascular diseases****Obligatory subject** |
| **Overall student’s workload** | 1. Workload connected to activities demanding direct presence of the teacher:* participation in seminars: **12 hours**
* participation in exercises: **18 hours**
* conducting credit: **1 hour**

The workload related to activities that require direct participation of academic teachers is **31 hours**, which corresponds to **1.24 ECTS credits**2. Balance of student workload:* Participation in seminars: **12 hours**
* Participation in exercises: **18 hours**
* Preparation for exercises (including reading the specified literature) **10 hours**
* Preparation for and taking the exam 4,5+0.5 = **5 hours**

The total student workload is 45 hours, which corresponds to **1.8 ECTS credits**3. Workload balance related to the implementation of learning outcomes under medical simulation conditions:* Exercises in the Medical Simulation Center - 4.5 hours.

The total workload related to the achievement of learning outcomes in medical simulation conditions is 4.5 hours, which corresponds to 0.18 ECTS points; percentage of activities that enable the achievement of learning outcomes: 15%4. Balance of workload related to the realization of learning outcomes related to medical communication:***Not applicable*** |
| **Learning effect - knowledge** |  W1: explains the causes, symptoms, principles of diagnosis and therapeutic management of the most common diseases requiring surgical treatment in adults: thoracic diseases (F.W1.);  W2: describes basic classical and minimally invasive surgical techniques (F.W3.); W3: defines the principles of eligibility for basic surgery and invasive diagnostic and therapeutic procedures and the most common complications (F.W4.); W4: describes the principles of perioperative safety, preparation of the patient for surgery, performance of general and local anesthesia and controlled sedation (F.W6.); W5: describes the principles of postoperative treatment with pain therapy and postoperative monitoring (F.W7.). |
| **Learning effect - skills** |  U1: uses open-ended questions, closed-ended questions, paraphrasing, clarification, internal and final summaries, signaling, active listening (e.g., detecting and recognizing signals sent by the interlocutor, verbal and nonverbal techniques), and facilitation (encouraging the interlocutor to speak) as appropriate to the situation (D.U10.); U2: conducts an interview with an adult, including an elderly person, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives (E.U1.); U3: performs a complete and focused physical examination of an adult tailored to the specific clinical situation, including general internal medicine, neurological, musculoskeletal, and geriatric examination (E.U5.). |
| **Learning effect – social competence** | K1: establishes and maintains deep and respectful contact with the patient, and shows understanding for worldview and cultural differences (K\_K01);K2: acts towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease (K\_K04);K3: perceives and recognizes own limitations and performs self-assessment of deficits and educational needs (K\_K05);K4: promotes health-promoting behaviors (K\_K06);K5: uses objective sources of information (K\_K07);K6: formulates appropriate conclusions from his/her own measurements or observations (K\_K08);K7: respects the principles of professional camaraderie and appropriate rules of cooperation in a team, including with representatives of other medical professions, and in a multicultural environment (K\_K09); |
| **Didactic methods** | **Seminars:*** didactic discussion
* case analysis

**Exercises:*** demonstration with instruction
* clinical exercises
* simulation methods
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| **Required knowledge of the course participant** | The student(s) taking this course should:* have basic knowledge of the anatomy and physiology of the cardiovascular system;
* be able to use knowledge of preclinical subjects to understand the pathophysiological mechanisms associated with congenital heart defects and diseases of the heart and cardiovascular system;
* have basic knowledge of history taking and physical examination in cardiovascular diseases.
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| **Short description of the course** | The course "Cardiac Surgery" is designed to acquire and consolidate knowledge in the surgical treatment of ischemic heart disease, congenital and acquired heart defects, aortic diseases and other heart diseases.  |
| **Description of the subject** | Cardiac surgery is an independent branch of surgery that deals with the surgical treatment of ischemic heart disease, congenital and acquired defects of the heart and large vessels, treatment of aortic diseases, and other heart diseases. Surgical treatment is preceded by specialized diagnostics. This requires close cooperation between cardiac surgeons and physicians of many specialties. The process of treatment of a cardiac patient does not end with his discharge from the Department of Cardiac Surgery, but the proper postoperative care of the patient is a part of the therapeutic success. Therefore, it is important to introduce the problems associated with cardiac surgery, not to present details of surgical techniques. Graduates will need more and more skills in recognizing, qualifying and referring patients for cardiac surgery. They should be familiar with the principles of patient management after cardiac surgery. |
| **Literature** | 1. Cardiac Surgery in the Adult Cohn, Edmunds, McGraw-Hill Professional ISSN00713912902. State of the Heart by Larry Warren Stephenson, M.D. available in the net: https://www.ctsnet.org/sections/journalsandbooks/books/soth/soth\_contents3. The content of the presentations, as well as the links to the selected materials, are listed in MS Teams, Team: Cardiac Surgery. |
| **Credit method & criteria** | Final written test (>60%): W1-W5, K1-K6Extended observation (>50%): K1-K6 Practical test under simulated conditions (pass mark from 3 points): U1-U3 |
| **Professional internship** | ***Not applicable*** |

1. **Subject cycle description**

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| **Nazwa pola** | **Komentarz** |
| **Didactic cycle** | **Semester VII and VIII** |
| **Credit method** | **Pass with grade** |
| **Learning methods, hours** | **Seminars - 12 hours****Exercises - 18 hours** |
| **Co-ordinator’s name** | **dr hab. Lech Anisimowicz, prof. UMK**  |
| **Clinical classes leaders** | **Seminars:**Dr hab. Lech Anisimowicz, dr hab. Wojciech Pawliszak, dr n. med. Daniel Rogowicz, lek. Radomir Skowronek.**Exercises:**Dr hab. Lech Anisimowicz, dr hab. Wojciech Pawliszak, dr n. med. Daniel Rogowicz, lek. Radomir Skowronek. |
| **Attribute** | **Obligatory** |
| **Learning groups** | **Seminars:** Dean’s groups (24 students)**Exercises:** clinical groups (6 students) |
| **The use of e-learning methods** | ***Not applicable*** |
| **Subject’s WWW site** | ***Not applicable*** |
| **Learning effects, defined for given learning form** | **Seminars:** W1: explains the causes, symptoms, principles of diagnosis and therapeutic management of the most common diseases requiring surgical treatment in adults: thoracic diseases (F.W1.);  W2: describes basic classical and minimally invasive surgical techniques (F.W3.); W3: defines the principles of eligibility for basic surgery and invasive diagnostic and therapeutic procedures and the most common complications (F.W4.); U1: uses open-ended questions, closed-ended questions, paraphrasing, clarification, internal and final summaries, signaling, active listening (e.g., detecting and recognizing signals sent by the interlocutor, verbal and nonverbal techniques), and facilitation (encouraging the interlocutor to speak) as appropriate to the situation (D.U10.); K3: perceives and recognizes own limitations and performs self-assessment of deficits and educational needs (K\_K05); K5: uses objective sources of information (K\_K07); K6: formulates appropriate conclusions from his/her own measurements or observations (K\_K08);**Exercises:** W1: explains the causes, symptoms, principles of diagnosis and therapeutic management of the most common diseases requiring surgical treatment in adults: thoracic diseases (F.W1.);  W2: describes basic classical and minimally invasive surgical techniques (F.W3.); W3: defines the principles of eligibility for basic surgery and invasive diagnostic and therapeutic procedures and the most common complications (F.W4.); U2: conducts an interview with an adult, including an elderly person, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives (E.U1.); U3: performs a complete and focused physical examination of an adult tailored to the specific clinical situation, including general internal medicine, neurological, musculoskeletal, and geriatric examination (E.U5.).K1: establishes and maintains deep and respectful contact with the patient, and shows understanding for worldview and cultural differences (K\_K01);K2: acts towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease (K\_K04);K3: perceives and recognizes own limitations and performs self-assessment of deficits and educational needs (K\_K05);K4: promotes health-promoting behaviors (K\_K06);K5: uses objective sources of information (K\_K07);K6: formulates appropriate conclusions from his/her own measurements or observations (K\_K08); K7: respects the principles of professional camaraderie and appropriate rules of cooperation in a team, including with representatives of other medical professions, and in a multicultural environment (K\_K09); |
| **Methods and criteria of evaluation of a given form of classes in the course** | **Seminars:**Final written test (>60%): W1-W5Extended observation (>50%) K1-K6**Exercises:**Final written test (>60%): W1-W5Practical test under simulated conditions: U1-U3Scoring system 0-5 (pass mark from 3 points) |
| **Range of topics (separately for given forms of classes)** | **Seminar topics:**Basic knowledge of anatomy, physiology, and pathophysiology, useful in understanding clinical problems in cardiac surgery.The spectrum of the basic issues in cardiac surgery.History of cardiac surgery.The most important international research and guidelines of scientific societies on cardiac surgery.Basic knowledge of the process of diagnosis, qualification, preparation and performance of cardiac surgery.Postoperative care in the early and distant period after heart and aortic surgery. Knowledge of procedures necessary for diagnosis and determination of indications for cardiac surgery in patients:with congenital heart defectswith ischemic heart diseasewith valvular defectswith diseases of the thoracic aortawith cardiac arrhythmiaswith heart and lung failureKnowledge of the basic principles and guidelines defining the indications and preparation of patients for cardiac surgery in the above disease groups. Knowledge of the basic methods of treatment of the mentioned groups of diseases, including surgical techniques, instruments and devices necessary in the process of treatment.Knowledge of the principles of patient management in the early and distant postoperative period.**Exercises topics:**Ability to conduct a history and physical examination to determine indications for cardiac surgery.Ability to assess the patient's condition based on the patient's condition and interpretation of laboratory tests, imaging studies, and vital signs monitoring data in the early and distant post-cardiac surgery period.Ability to communicate important information to the patient before treatment and in the early and distant period after cardiac surgery treatment. |
| **Didactic methods** | **Seminars:*** didactic discussion
* case analysis

**Exercises:*** demonstration with instruction
* clinical exercises
* simulation methods
 |
| **Literature** | *Refer to section A.* |