**SYLLABUS**

Academic year 2017/2018

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| **Name of a course/module** | Surgery |
| **Name of the Department/-s where the course is implemented** | 1. 1st Department of General and Endocrinological Surgery
2. 2nd Dpeartment of General and Gastroenterological Surgery
3. Department of Thoracic Surgery, Medical University of Bialystok
4. Department of Vascular and Transplantation Surgery

Medical University of Bialystok |
| **e-mail of Department** | 1. klchirog@umwb.edu.pl
2. chgastro@umwb.edu.pl
3. thorax@umb.edu.pl
4. chirnacz@umb.edu.pl
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| **Faculty** | Faculty of Medicine with the Division of Dentistry and Division of Medical Education In English |
| **Name of a field of study** | Surgery |
| **Level of education** | First degree studies, Uniform master’s degree studies. |
| **Form of study** | full time **x** part time □ |
| **Language of instruction** | Polish □ English **x** |
| **Type of course** | obligatory **x**  facultative □ |
| **Year of study / Semester** | I □ II □ III □ IV □ V □ VI □ | 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7 □ 8 □ 9 □10 □d11 □ 12 □ |
| **Introductory courses with preliminary requirements** | **Implementation of the learning outcomes in terms of knowledge, skill sets and competencies of the previous years of study in the field of surgery** |
| **Number of didactic hours with specification of forms of conducting classes** | Lectures 65; Seminars 20; Classes 115  |
| **Assumptions and aims** **of the course** | 1. Aquiring of knowledge of pathophysiology and natural course of diseasese requiring surgical treatment.
2. Learning principles of diagnostics of the patients requiring invasive treatment (anamnesis/history and physical examination, additional studies).
3. Gaining knowledge about qualification to surgical treatment, comprising indications and contraindications to surgical treatment.
4. Learning about methods and results (both early and late) of surgical treatment.
5. Aquiring knowledge about management of trauma and principles of oncological surgery
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| **Didactic methods** | - providing knowledge in a form of a lecture- consultation (both regular and organized in individual cases)- discussion- presentation- case description- self study- study of the literature- other practical classes- forms of distance learning (if applicable)- other methods/forms (e.g. e-learning) |
| **Full name of the person conducting the course** | employed scientific and teaching staff from different departments;responsible: Dr Piotr Wojskowicz (1st Department of General and Endocrinological Surgery); Assoc. Prof. Zbigniew Kamocki (2nd Department of General and Gastroenterological Surgery); Assoc. Prof. Mirosław Kozłowski (Departemnt of Thoracic Surgery); Assoc. Prof. Jerzy Głowiński (Department of Vascular and Transplantation Surgery) |
| **Full name of the person responsible for teaching** | Coordination: Assoc. Prof. Piotr Myśliwiec |

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| **Symbol and number of learning outcomes according to the teaching standards and other learning outcomes** | **Description of directional learning outcomes** | **Form of classes** | **Verification methods for achieving intended learning outcomes**  |
| **Knowledge** |
| E.W1. | environmental and epidemiological backgrounds for most common diseases; | Lect, sem, class | *Summarizing methods e.g.,* *- oral exam**- written exam* *Forming methods, e.g.,**- observation of the student's work**- pretest**- evaluation of the activity in the classroom**- completion of each activity**- assessment of preparation for classes**- discussion in class**- partial tests**- preliminary tests**- case description* |
| E.W7. | causes, symptoms and principles of diagnostic and therapeutic procedures for most common diseases in the adulthood, such as:1. Gastrointestinal system diseases, including: disease of the mouth, oesophagus, stomach and duodenum, intestines, pancreas, liver, biliary tracts and gallbladder,
2. Endocrine system diseases, including: diseases of hypothalamus and pituitary gland, thyroid, parathyroids, adrenal cortex and madulla, ovaries and testicles, neuroendocrine tumors, multiple endocrine neoplasia syndromes, different types of diabetes and metabolic syndrome, hypoglycemia, obesity, dyslipidemia,
3. Circulatory system diseases, including: ischemic heart disease, valve abnormalities, diseases of endocardium, heart muscle and pericardium, heart failure (acute and chronic), arterial and venous vessels, arterial hypertension: primary and secondary, pulmonary hypertension,
4. respiratory diseases, including diseases of the respiratory tract, chronic obstructive pulmonary disease, asthma, emphysema, bronchiectasis, cystic fibrosis, respiratory infections, interstitial lung diseases, pleura, mediastinum, obstructive and central sleep apnea, respiratory failure (acute and chronic ), respiratory cancers
5. water and electrolite distubances, acid-base balance distrubances, dehydration, overhydration, acidosis, alcalosis
 | Lect, sem, class |
| E.W38. | theoretical and practical standards of laboratory diagnoses; | Lect, sem, class |
| F.W1. | causes, symptoms and principles of diagnostic and therapeutic procedures for most common children diseases requiring surgical treatment, especially acute and chronic abdominal diseases | Lect, sem, class |
| F.W3. | Principles of qualification and performing of basic surgical and invasive diagnostic and therapeutic procedures | Lect, sem, class |
| F.W4. | Most common complications of above-mentioned procedures | Lect, sem, class |
| F.W5. | Principles of safety and periperative preparation, anesthesia (general, local) and sedation | Lect, sem, class |
| F.W10. | Principles of current imaging modalities, including:1. radiologic symptomatology of most common diseases,
2. instumental methods and imaging techniques used in therapeutic purposes,
3. indications, contraindications and preparation of patients to different methods of imaging studies; contraindications to use of radiologic contrast media.
 | Lect, sem, class |
| F.W14. | Basic knowledge of transplantation procedures, indications to transplantation of end-stage damaged organs and tissues, preparation and connected procedures. | *Sem* |
| F.W15. | Principles of suspecting and diagnosing brain death | *Sem* |
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| **Skills** |
| E.U1. | conducting a medical interview with an adult patient | classes | *Summarizing methods e.g,.**- practical examination* *(with simulator, phantom)**- realization of a specific task**- project, presentation**Forming methods, e.g.,**- observation of the student's work**- pretest**- evaluation of the activity in the classroom**- completion of each activity**- assessment of preparation* *for classes**- discussion in class**- partial tests**- preliminary tests**- case description* |
| E.U3. | conducting a general and organ-specific physical examination of an adult patient | classes |
| E.U14. | recognizing emergency medical conditions; | classes |
| E.U16. | planning diagnostic, therapeutic and preventive procedures; | classes |
| E.U32. | planning consultations with specialists | classes |
| E.U37. | recognizing patient’s agony and presuming death; | classes |
| E.U38. | keeping medical documentation/records of the patient. | classes |
| F.U1. | Assisting to a typical surgical procedure, preparation of operative field and local anesthesia of operated area | classes |
| F.U2. | Using basing surgical instruments | classes |
| F.U3. | Implementing methods of asepsis and antisepsis | classes |
| F.U4. | Dressing a simple wound according to asepsis and antisepsis principles | classes |
| F.U6. | Examining of breasts, lymph nodes, thyroid gland and anbominal cavity, performing rectal digital examination | classes |
| F.U9. | Managing of external bleeding | classes |
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| **Social competence** |
| K1 | establish the doctor-patient relationship based on deep and profound respect | classes | *Summarizing methods e.g.,**Continuous assessment by teachers (observation)**Forming methods, e.g.,**- observation of the student's work**- discussion in class**- opinions of patients, colleagues* |
| K2 | take into consideration welfare of the patient and put it in the first place | classes |
| K3 | Keep medical secret and respect all patient’s rights | classes |
| K4 | be aware of his/her own limitations and need to improve their skills continually  | classes |
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| **ECTS points** | 4+4+4 |
| **Student Workload** |
| **Form of activity** | **Number of hours to carry out activity** |
| **Activities requiring participation of a teacher:** |
| 1. Implementation of the course: lectures (according to the curriculum)
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| 1. Implementation of the course: classes (according to the curriculum)
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| 1. Implementation of the course: seminars (according to the curriculum)
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| 1. Implementation of the course: electives
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| 1. Participation in consultation
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|  | Total hours: |
| **Student self-study:***1 punkt ECTS oznacza 25-30 godzin pracy studenta w różnych formach, takich jak np.:* |
| 1. Preparation for the theoretical and practical classes (realization of projects, documentation, case description etc.)
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| 1. Preparation for tests/credits
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| 1. Preparation for an exam/final test-credit
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|  | Total hours: |

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| **Course contents:**  |
| **Learning outcomes** **(symbol and number)** | **Topics** |
|  | **LECTURES** |
| E.W1. / E.W7. / F.W10. | Peritonitis.  |
| E.W1. / E.W7. / F.W10. | Acute appendicitis. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Complications of peptic ulcer disease – surgical treatment.  |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Abdominal hernia. Diagnostics, symptoms, complications, treatment. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Hypovolemic shock. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Bleeding from gastrointestinal system. Diagnostics and management. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Videosurgery. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Septic shock.  |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Gallstones. Diagnostics, symptoms, complications, treatment.  |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Acute pancreatitis. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Chronic pancreatitis. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Benign diseases of gastrointestinal system. |
| F.W1. / F.W4. | Principles of nutritional treatment in surgical patients. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Burns and frostbites.  |
| F.W1. / F.W4. | Principles of nutritional treatment in surgical patients (part 2) |
| F.W1. / F.W4. | Principles of nutritional treatment in surgical patients (part 3) |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Burns and frostbites |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Thyroid gland diseases – epidemiology, symptoms, diagnostics, managment.  |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Parathyroid gland diseases – epidemiology, symptoms, diagnostics, managment  |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Adrenal gland diseases – epidemiology, symptoms, diagnostics, managment  |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Neuroendocrine tumors of gastrointestinal system. Multiple endocrine neoplasia. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Pancreatic neoplasms – epidemiology, symptoms, diagnostics, managment. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Biliary tracts neoplasms – epidemiology, symptoms, diagnostics, managment. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Liver neoplasms – epidemiology, symptoms, diagnostics, managment |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Colorectal neoplasms – epidemiology, symptoms, diagnostics, managment |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Pathogenesis, symptoms, diagnostics and management of chronic arterial insuffieciency. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Acute limb ischemia.  |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Trauma of peripheral vessels. Diagnostics and management. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Pathogenesis and diagnostics of abdominal aortic aneurysms. Aortic dissection.  |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Chronic venous insufficency. Venous thromboembolic disease. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Basics of transplantology. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Lung cancer: epidemiology, pathogenesis and clinical picture. TNM for lung cancer, endoscopic and minimally invasive diagnostics, invasive diagnosics and surgery. Neoplasms of thoracic organs. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Oesophagus diseases.  |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Chest trauma: epidemiology, injuries of the chest wall, pneumothorax, pleural hematoma, damage to internal organs, diagnosics and emergency assistance, final treatment. |
| E.W1. / E.W7. / F.W1. / F.W3. / F.W4. / F.W5. | Current cardiosurgical treatment – indications, contraindications, results, complications. |
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|  | **SEMINARS** |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Wound healing pathophysiology.  |
| E.W38. / F.W10. | Additional tests in surgery, interpretation of results. |
| F.W5. | Aseptics and antiseptics. |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Basic surgical tools.  |
| F.W3. | Modern wound closure materials.  |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Wound infections. Pyogenic states of soft tissues. |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Water-electrolyte disturbances. |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Inflammatory bowel disease.  |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Surgical liver diseases. |
| F.W3. | Multi-organ trauma.  |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Abdominal trauma. |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Metabolic and bariatric surgery. |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Gastric cancer – epidemiology, symptoms, diagnosis and treatment. |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Genetically determined neoplastic disease, familial incidence of neoplasms.  |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. / F.W4. / F.W5. / F.W10. / | Anal diseases. |
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|  | **CLASSES** |
| E.U1. / E.U3. / E.U16.  | Medical history taking and physical examination in surgery. |
| F.U1 / F.U9. | Surgical suturing and tying techniques. |
| E.U16. / E.U32. / F.U.6 | Medical history / case preparation. |
| F.U1 / F.U9. | Surgical scrubbing. Putting on surgical gloves technique. |
| E.W38. / F.W1. / F.W10. / E.U1./ E.U3. / E.U37. / F.U1. / F.U2. / F.U3. / F.U4. / F.U9. / F.U6. | Classes at patient bed, in the Outpatient Department, Emergency Unit, Operating Room |
| E.U16. / E.U32. / F.U.6 | Referring of history and physical examination. |
| F.U1 / F.U9. | Nasogastric tube insertion technique. |
| F.U1 / F.U9. | Rectal digital examination technique. |
| F.U1 / F.U9. | Assisting to the operations, suture removal, drain removal. |
| E.W1. / E.W7. / F.W1. / F.W3. F.W4. / F.W5. / F.W10. / | Symptoms of arterial and venous diseases. |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. F.W4. / F.W5. / F.W10. / | Extracranial vascular diseases. |
| E.W1. / E.W7. / F.W1. / F.W3. F.W4. / F.W5. / F.W10. / | Renovascular hypertension. |
| E.W1. / E.W7. / F.W1. / F.W3. F.W4. / F.W5. / | Arterial compression syndromes. Vasomotor dysfunction. |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. F.W4. / F.W5. / | Operative techniques – video presentations. Endovascular surgery techniques. |
| E.W1. / E.W7. / F.W1. / | Chosen problems of arterial vessel surgery (management of aortic aneurysms, aortic arch syndrome, acute and chronic intestinal ischemia, Raynaud phenomenon). |
| E.W1. / E.W7. / F.W1. / | Medical history taking and physical examination in thoracic surgery. |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. F.W4. / F.W5. / F.W10. / | Flail chest and pneumthorax: treatment.  |
| E.W1. / E.W7. / F.W1. / | Bullous emphysema: pulmonary complications and indications for surgery. |
| E.W1. / E.W7. / F.W1. / | Pleural effusions: etiology and indications for surgery. |
| E.W41. / F.W1. / F.W3. F.W4. / F.W5. / F.U2. /  | Diaphragmatic hernia: etiology, symptoms, diagnostic imaging and treatment. |
| E.W1. / E.W7. / F.W1. / F.W3. F.W4. / F.W5. / F.W10. / | Surgical and combined treatment of carcinomas of the oesophagus and oesophagogastric junction. |
| E.W1. / E.W7. / E.W38. / F.W1. / F.W3. F.W4. / F.W5. / F.W10. / | Suppurative lung and pleura disease: lung abscess and empyema of the pleural cavity; surgical treatment methods. |
| E.W1. / E.W7. / F.W1. / | Diverticula of the oesophagus. |
| E.W41. / F.W1. / F.W3. F.W4. / F.W5. / F.W10. / | Pulmonary tuberculosis: indications for surgery. |
| E.W41. / F.W1. / F.W3. F.W4. / F.W5. / F.W10. / | Congenital and acquired defects of the chest wall. |
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| **Obligatory textbook:** |
| Garden O.J. Principles and Practice of Surgery, 2012 Elsevier |
| **Optional textbook:** |
| Becker J.M., Stucchi A.F. Essentials of Surgery, PhD, 2006 Saunders/Elsevier |

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| **Criteria for assessing the achieved learning outcomes and the form and conditions for receiving credit:**  |
| According to “Student Regulations for Classes in Surgery” in all departments . Requirements to achieve a passing grade in practical classes in all Departments (III-VI years): Attendance on classes, seminars, and lectures Passing grade of >=60% on the *final test* in pediatrics, positive result from practical and oral exams. |

 Assoc. Prof. Piotr Myśliwiec

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*(date and signature of the person preparing the syllabus)*

 Assoc. Prof. Piotr Myśliwiec

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 *(date and signature of the Head of the and (course coordinator)*

 *Department where the course is held)*