**description of the course of study**

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| **Course code** | **12.6-3LEK-C6.2-G** | |
| **Name of the course in** | Polish | **Chirurgia ogólna** |
| English | **General Surgery** |

1. **LOCATION OF THE course OF STUDY within the system of studies**

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| **1.1. Field of study** | medicine |
| **1.2. Mode of study** | full-time |
| **1.3. Level of study** | uniform Master’s study |
| **1.4. Profile of study\*** | General academic |
| **1.5. Person preparing the course description** | dr n. med. Jarosław Matykiewicz |
| **1.6. Contact** | jaromaty@wp.pl |

1. **General characteristicS of the course of study**

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| **2.1. Language of instruction** | **English** |
| **2.2. Prerequisites\*** | Anatomy, Physiology |

1. **DETAILED CHARACTERISTICS OF THE COURSE OF STUDY**

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| * 1. **Form of classes** | | **LECTURE: 90 (including 9 hours of e-learning), CLASSES -90 (including 8 hours of e-learning), PRACTICAL CLASSES:75** |
| * 1. **Place of classes** | | Lecture- Courses in the teaching rooms of the JKU  Classes- Department of General Surgery, Oncology and Endocrinology Kielce |
| * 1. **Form of assessment** | | **LECTURE – E, CLASSES – Credit with grade** |
| * 1. **Teaching methods** | | * Multimedia presentations of the principles of diagnosis and treatment in surgery including surgical and outpatient procedures. * Seminars, lectures * Presentations of clinical cases |
| * 1. **Bibliography** | **Required reading** | 1. Principles and Practice of Surgery 6th Edition   O. James Garden Andrew Bradbury John Forsythe Rowan W Parks; Churchill Livingstone, 28th May 2012 |
| **Further reading** | 1. Step- Up to Surgery second edition. 2. Churchill’s pocketbooks Surgery |

1. **Objectives, syllabus CONTENT and intended LEARNING outcomes**

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| * 1. **Course objectives *(including form of classes)***   2. **Aims** * Acquire knowledge on the surgical department work. * Acquire knowledge on the doctor’s work particulars at the surgical department. * Acquire knowledge on the cooperation particulars during cooperation with a diagnostic laboratory, a radiological laboratory, a microbiological laboratory and an endoscopy laboratory. * Acquire knowledge on particulars of preparing a patient to urgent and scheduled surgical procedures. * Acquire knowledge on wound healing. * Acquire knowledge on the injury impact on the organism and shock treatment. * Acquire basic knowledge on nutrition treatment in surgery. * Acquire basic knowledge on the most popular injuries: head injuries, neck injuries, chest and abdominal cavity injuries, limbs injuries and their results. * Acquire basic knowledge on burns and frostbites and particulars of their dressing. * Acquire basic knowledge on abdominal cavity surgical serious illnesses: acute appendicitis, acute cholecystitis, digestive tract obstruction, perforation of gastric or duodenal ulcer, peritonitis, hemorrhage into the digestive tract lumen. * Acquire basic knowledge on the most popular cancers: lung cancer, breast cancer, colorectal cancer, stomach cancer. * Acquire basic knowledge on: hernias, pancreatobiliary diseases, gallstone, portal hypertension and its complications. * Acquire knowledge on the most popular endocrine system diseases – thyroid diseases, adrenal diseases, multiple cancers of endocrine glands. * Acquire knowledge on the most popular peripheral vascular system: acute and chronic ischemia of lower limbs, aneurysm of the abdominal aorta, venous insufficiency of the lower limbs * Acquire knowledge on particulars in surgical treatment of a coronary heart disease and a valvular heart disease. * Acquire knowledge on the most popular complications in surgical treatment and particulars of their prevention. * Acquire knowledge on particulars of organ transplantations. * Acquire knowledge on metabolic surgery. * Acquire knowledge on surgical infections treatments. |

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| * 1. **Detailed syllabus *(including form of classes)***   **Semester V -VI**  Lectures   1. Metabolism in surgery, principles of fluid therapy. 2. Basic issues in surgery: wound, types of wounds, contusions, sprains, dislocations, fractures - diagnostic and therapeutic procedures. 3. Infections in surgery - hospital-acquired infection, prophylaxis of infections, principles of antibiotic therapy. 4. Shock: types, pathophysiology, recognition, treatment 5. The body's response to injury. 6. Head injuries: pathology of concussion, brain contusions, cerebral and intracerebral haematomas, cerebral edema - diagnosis and treatment. 7. Chest injuries: rib fractures, chest flaccid, pneumothorax, pleural hematoma, cardiac contusion - diagnosis and treatment. 8. Abdominal trauma: trauma to parenchymal organs, intestinal trauma, trauma to large vessels - diagnosis and treatment. 9. Burns and frostbites - recognition, treatment, burn disease and its metabolic consequences. 10. Surgical procedures: classic, laparoscopic, endoscopic   Classes/ practical classes   1. Composition of the system. Water and electrolyte balance. Principles of fluid therapy. 2. Shock - causes, diagnosis and treatment. 3. Wounds and their dressings, first aid in burns. 4. Surgical infections - collection of material for research, selection of treatment. 5. Surgical examination and i eligibility for surgery.   **Semester VII –VIII**  Lectures  Sem VII   1. Recognition and treatment of the most common diseases of the digestive system – [Cholelithiasis](http://context.reverso.net/translation/english-polish/Cholelithiasis) and gallstones,  acute inflammation of the pancreas, chronic pancreatitis, peptic ulcer disease, portal hypertension, inflammatory bowel disease. 2. Identification and treatment of the most common acute surgical diseases of the abdominal cavity - acute appendicitis, perforated stomach ulcer and duodenal ulcer, digestive tract obstruction , peritonitis; gastrointestinal bleeding. 3. Abdominal hernias treatment and surgical treatment. 4. Identification and treatment of the most common upper gastrointestinal tract cancers - gastro esophageal and gastric cancer.   Sem VIII   1. Diagnosis and treatment of colorectal cancer. 2. Diagnosis and surgical treatment of the endocrine glands diseases– thyroid gland, thyroid cancer, adrenal tumors, endocrine tumors syndromes. 3. Diagnosis and treatment of respiratory system diseases - lung cancer, tumours of the chest wall, mediastinal tumours. 4. Benign breast diseases and breast cancer - diagnosis and treatment. 5. Test/ Credit   Classes/ practical classes  **Sem. VII - VIII**   1. Preparing the Patient for Surgery: elements of mental, physical and pharmacological preparation, the problem of informed consent for surgery. 2. Acute abdominal surgical diseases - a discussion of clinical cases 3. The most common digestive system cancers - a discussion of clinical cases.   *Practical classes : discussing clinical cases according to the curriculum.*  **Sem VIII**   1. The most common cancerous and non-cancerous diseases of the liver, gallbladder and biliary tract– a discussion of clinical cases. 2. The most common cancerous and non-cancerous diseases of the pancreas- a discussion of clinical cases. 3. The most common cancerous and non-cancerous diseases of the esophagus and stomach– a discussion of clinical cases. 4. The most common cancerous and non-cancerous diseases of the small and large intestine as well as anus– a discussion of clinical cases.   **Semester IX- X**   1. Surgical treatment of ischemic heart disease and heart valve defects. 2. Basics of transplantology - guidelines for heart transplantation, organ donation, ethical and legal problems. 3. Varices of lower limbs i chronic venous insufficiency – recognition and treatment. 4. Venous thromboembolism: recognition, treatment and prophylaxis. 5. Arterial embolism, arterial thrombosis, aortic aneurysms, atherosclerosis of the lower limbs. 6. Postoperative complications: infections, gastrointestinal fistula, cardiovascular complications, respiratory complications. 7. Parenteral and enteral nutrition in surgery: access to nutrition, principles of nutritional therapy and its monitoring. 8. Metabolic surgery: surgical treatment of obesity. 9. Surgery of the Future.   Classes/ practical classes   1. Medical complications of surgical treatment - discussion of clinical cases. 2. Peripheral vascular disease - a discussion of clinical cases. 3. Practical aspects of nutritional therapy in surgery. |

**4.3 Intended learning outcomes**

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| **Code** | **A student, who passed the course** | **Relation to teaching**  **outcomes** |
| within the scope of **knowledge** the graduate knows and understands**:** | | |
| W01 | the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common diseases requiring surgical intervention, taking into account the individuality of childhood, in particular:  1) acute and chronic diseases of the abdominal cavity,  2) diseases of the chest,  3) diseases of limbs and head,  4) bone fractures and injuries of organs; | F.W1. |
| W02 | eligibility rules for basic surgeries, invasive diagnostic and treatment procedures, principles concerning conducting these procedures and most common complications; | F.W3. |
| W03 | the current guidelines for cardiopulmonary resuscitation of the newborns, children and adults; | F.W7. |
| W04 | the issues concerning modern imaging tests, in particular:  1) radiological symptomatology of basic diseases,  2) instrumental methods and imaging techniques used to perform medical procedures,  3) the indications, contraindications and preparation of patients to particular types of imaging tests and contraindications the use of contrast agents; | F.W10. |
| W05 | the problem of surgical transplantation, indications for the transplantation of irreducibly damaged organs and tissues, and related procedures; | F.W14. |
| within the scope of **ABILITIES** the graduate knows how to: | | |
| U01 | assess patient’s general condition, consciousness and awarenes; | E.U7. |
| U02 | perform differential diagnosis of the most common diseases in adults and children; | E.U12. |
| U03 | assess and describe the somatic and mental state of patients; | E.U13. |
| U04 | recognize states of a direct threat to life; | E.U14. |
| U06 | plan diagnostic, therapeutic and preventive procedures; | E.U16. |
| U07 | conduct analysis of the potential side effects of each drug and the interaction between them; | E.U17. |
| U08 | qualify the patient for home treatment and hospitalization; | E.U20. |
| U09 | recognize states in which functional status of the patient's or his/her preferences restrict the treatment in accordance with specific guidelines for the disease | E.U21. |
| U10 | interpret laboratory test results and identify the reasons for deviations; | E.U24. |
| U11 | apply dietary treatment with the consideration ofenteral and parenteral feeding; | E.U25. |
| U12 | assist when the following procedures and medical treatments are performed:  1) transfusions of blood and blood products,  2) drainage of the pleural cavity,  3) puncture of the pericardium,  4) puncture of the peritoneal cavity,  5) lumbar puncture,  6) needle biopsy,  7) epidermal tests,  8) intradermal and scarification tests and interpret their results; | E.U30. |
| U13 | plan specialist consultations; | E.U32. |
| U14 | evaluate decubitus and apply appropriate dressings; | E.U35. |
| U15 | act correctly in the case of injuries (use dressing or immobilization, stitch the wound); | E.U36. |
| U16 | keep medical records of the patient | E.U38. |
| U17 | assist during a typical surgery, prepare the surgical site and locally anesthetize operated area; | F.U1. |
| U18 | use basic medical tools; | F.U2. |
| U19 | comply with the aseptic and antiseptic rules; | F.U3. |
| U20 | manage simple wounds and change sterile surgical dressing; | F.U4. |
| U21 | use peripheral venous catheter; | F.U5. |
| U22 | examine nipples, lymph nodes, thyroid gland and the abdominal cavity in terms of acute abdomen, and perform finger test through the anus; | F.U6. |
| U23 | manage external bleeding; | F.U9. |
| U24 | monitor the patient’s condition during the postoperative period basing on the basic parameters of life; | F.U12. |
| U25 | assess the condition of the unconscious patient in accordance with applicable international scales; | F.U21. |
| U26 | recognize the symptoms of increasing intracranial pressure; | F.U22. |

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|  | within the scope of **SOCIAL COMPETENCE**, the graduate is able to: |  |
| K01 | establish and maintain deep and respectful contact with the patient and show understanding towards ideological and cultural differences; | H.S1 |
| K02 | do what is right for the patient; | H.S2 |
| K03 | respect medical confidentiality and patient’s rights; | H.S3 |
| K04 | take actions concerning the patient on the basis of ethical principles, being aware of social conditions and restrictions resulting from illness; | H.S4 |
| K05 | recognize his/her own limitations and self-evaluate educational deficiencies and needs; | H.S5 |
| K06 | promote healthy lifestyle; | H.S6 |
| K07 | use reliable information sources; | H.S7 |
| K08 | conclude on the basis of own surveys and observations; | H.S8 |
| K09 | introduce rules of social conduct and teamwork to the group of specialists, including specialists form other medical professions also in the multicultural and multinational environment; | H.S9 |
| K10 | give opinions concerning various aspects of professional activity; | H.S10 |
| K11 | take responsibility for own decisions made during professional activities including own safety and safety of other people; | H.S11 |

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| **Methods of assessment of the intended teaching outcomes** | | | | | | | | | | | | | | | | | | | | | | |
| **Teaching**  **outcomes**  ***(code)*** | **Method of assessment (+/-)** | | | | | | | | | | | | | | | | | | | | | |
| **Exam oral/written\*** | | | **Test\*** | | | **Project\*** | | | **Effort**  **in class\*** | | | **Self-study\*** | | | **Group work\*** | | | **Others\***  **Attendance** | | | **Observation** |
| ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** |
| *L* | *C* | *PC* | *L* | *C* | *PC* | *L* | *C* | *PC* | *L* | *C* | *PC* | *L* | *C* | *PC* | *L* | *C* | *PC* | *L* | *C* | *PC* | *L/C/PC* |
| W01 | ***+*** |  |  | ***+*** | ***+*** |  |  |  |  | ***+*** |  |  |  |  |  |  |  |  | ***+*** |  |  |  |
| W02 | ***+*** |  |  | ***+*** |  |  |  |  |  | ***+*** |  |  |  |  |  |  |  |  | ***+*** |  |  |  |
| W03 | ***+*** |  |  | ***+*** |  |  |  |  |  | ***+*** |  |  |  |  |  |  |  |  | ***+*** |  |  |  |
| W04 | ***+*** |  |  | ***+*** |  |  |  |  |  | ***+*** |  |  |  |  |  |  |  |  | ***+*** |  |  |  |
| W05 | ***+*** |  |  | ***+*** |  |  |  |  |  | ***+*** |  |  |  |  |  |  |  |  | ***+*** |  |  |  |
| U01 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U02 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U03 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U04 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U05 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U06 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U07 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U08 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U09 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U10 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U11 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U12 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U13 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U14 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U15 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U16 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U17 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U18 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U19 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U20 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U21 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U22 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U23 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U24 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| U25 |  |  |  |  | + | + |  | + | + |  | + | + |  |  |  |  |  |  |  | + | + |  |
| K01-K11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |

***\*delete as appropriate***

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| * 1. **Criteria of assessment of the intended learning outcomes** | | |
| **Form of classes** | **Grade** | **Criterion of assessment** |
| **lecture (L)** | **3** | Test results 61%-68% points |
| **3,5** | Test results 69%-76% points |
| **4** | Test results 77%-84% points |
| **4,5** | Test results 85%-92% points |
| **5** | Test results 93%-100% points |
| **classes (C)\*** | **3** | 61%-68% Learning programme content on the basic level, replies chaotic, leading questions necessary. |
| **3,5** | 69%-76% Learning programme content on the basic level, answers systematized, requires assistance from the teacher. |
| **4** | 77%-84% Learning programme content on the basic level, answers systematized, independent.  Solving of problems in typical situations. |
| **4,5** | 85%-92% The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations |
| **5** | 93%-100% The scope of presented knowledge goes beyond the primary level based on independently gained scientific sources of information. |
| **others (...)\*** | **3** | 61%-68% Learning programme content on the basic level, replies chaotic, leading questions necessary. |
| **3,5** | 69%-76% Learning programme content on the basic level, answers systematized, requires assistance from the teacher. |
| **4** | 77%-84% Learning programme content on the basic level, answers systematized, independent.  Solving of problems in typical situations. |
| **4,5** | 85%-92% The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations |
| **5** | 93%-100% The scope of presented knowledge goes beyond the primary level based on independently gained scientific sources of information. |

* [**Thresholds**](https://pl.bab.la/slownik/angielski-polski/thresholds) **are valid from 2018/ 2019 academic year**

1. **BALANCE OF ECTS CREDITS – STUDENT’S WORK INPUT**

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| **Category** | **Student's workload** |
| **Full-time**  **studies** |
| *NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/* | **255** |
| *Participation in lectures\** | **81** |
| *Participation in classes, seminars, laboratories\** | **157** |
| *Preparation in the exam/ final test\** |  |
| *Others\** | **17**1 |
| *INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/* | **120** |
| *Preparation for the lecture\** | **50** |
| *Preparation for the classes, seminars, laboratories\** | **70** |
| *Preparation for the exam/test\** |  |
| *Gathering materials for the project/Internet query\** |  |
| *Preparation of multimedia presentation* |  |
| *Others (please specify e.g. e-learning)\** |  |
| *TOTAL NUMBER OF HOURS* | **375** |
| ECTS credits for the course of study | **15** |

***\*delete as appropriate***

***Accepted for execution*** *(date and legible signatures of the teachers running the course in the given academic year),*

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1 e-learning – zajęcia bez bezpośredniego udziału wykładowcy