



**Pomeranian Medical University in Szczecin[PUM]**  
**COURSE SYLLABUS**  
**General information**

| <b>Name of Course: Orthopaedics and Traumatology</b>                 |  |
|--|--|
| Type of course   | <i>Compulsory</i>  |
| PUM Faculty  | <i>Faculty of Medicine and Dentistry</i>   |
| Field of study   | <i>Medicine</i>  |
| Specialization   | <i>Not applicable</i>  |
| Level of study   | <i>Long-term studies</i>   |
| Form of study  | <i>Full-time, part-time</i>  |
| Year of study /semester  | <i>Year 5, semester IX and X, block</i>  |
| Number of ECTS credits allocated                                     | <i>3</i>   |
| Forms of teaching<br>(number of hours)                               | <i>Lectures 18 hours, seminars 10 hours, practical exercises 32 hours.</i>   |
| Methods of verification and assessment<br>of learning outcomes       | <input type="checkbox"/> <i>graded credit:</i><br><input type="checkbox"/> <i>descriptive credit</i><br><input type="checkbox"/> <i>test credit</i><br><input type="checkbox"/> <i>practical credit</i><br><input type="checkbox"/> <i>oral credit</i><br><br><i>X – credit without grade</i><br><br><input type="checkbox"/> <i>final exam:</i><br><input type="checkbox"/> <i>descriptive credit</i><br><i>X- test credit</i><br><input type="checkbox"/> <i>practical credit</i><br><input type="checkbox"/> <i>oral credit</i> |
| Head of Unit   | <i>Prof. dr. hab. Andrzej Bohatyrewicz, prof. Ph.D.</i>  |
| Teaching assistant professor or person<br>responsible for the course | <i>Prof. dr. hab. Andrzej Bohatyrewicz, prof, Ph.D.<br/>email: bohatyrewicz@orthopaedics.pl<br/>tel: 914253236</i>   |

|                                  |   |
|----------------------------------|---|
| Name and contact details of unit | <i>Chair and Department of Orthopaedics and Traumatology and Motor Oncology<br/>SPSK nr 1, tel: 914253236</i> |
| Unit's website                   | <i>www.pum.edu.pl</i>   |
| Language of instruction          | <i>Polish/English</i>   |

### Detailed information

|                                      |                    |  |
|--------------------------------------|--------------------|--|
| Course objectives                    |                    | <ol style="list-style-type: none"> <li>1. Basic knowledge of orthopaedics and traumatology and musculoskeletal oncology</li> <li>2. Subjective and physical examination of the locomotor system with elements of neurological examination</li> <li>3. Differential diagnosis in orthopaedics and traumatology and musculoskeletal oncology</li> <li>4. Radiological evaluation of orthopaedic and traumatological cases</li> <li>5. Management of musculoskeletal injuries (contusions, sprains, dislocations, fractures, wound care)</li> <li>5. application of basic orthopaedic techniques - plaster immobilisation, skeletal lift</li> </ol> |
| Preliminary requirements in terms of | Knowledge          | <p>A student knows:</p> <ol style="list-style-type: none"> <li>1. Normal and topographical human anatomy</li> <li>2. Basic concepts in radiology</li> <li>3. Basic rules of behaviour in the operating theatre</li> <li>4. Principles of aseptics and antisepsis</li> </ol>  |
|                                      | Skills             | <p>A student can:</p> <ol style="list-style-type: none"> <li>1. Perform subjective and physical examination of the patient</li> </ol>  |
|                                      | Social competences | <p>A student will demonstrate competency in:</p> <ol style="list-style-type: none"> <li>1. Conversations with the patient</li> <li>2. Working in a team</li> <li>3. High personal culture</li> </ol>   |

| LEARNING OUTCOMES          |  |  |  |
|----------------------------|--|--|--|
| Number of learning outcome | A student who has completed of the COURSE knows/can: | SYMBOL (reference to) learning outcomes for the field of study | Method of verifying the learning outcomes* |

|     |  |         |   |
|-----|--|---------|---|
| W01 | knows and understands the causes, symptoms, principles of diagnosis and therapeutic proceedings in relation to the most common diseases requiring surgical intervention, taking into account the specificity of childhood, including in particular<br>a) acute and chronic abdominal diseases,<br>b) chest diseases,<br>c) diseases of the limbs and head,<br>d) bone fractures and organ injuries | K_F.W1  | written test  |
| W02 | knows selected issues of pediatric surgery, including traumatology, defects and acquired diseases that are indications for surgical treatment in children  | K_F.W2  | written test  |
| W03 | knows the rules of qualification and performance of basic surgical procedures and invasive diagnostic procedures;  | K_F.W3  | written test  |
| W04 | knows the most common complications of the above mentioned treatments and procedures   | K_F.W4  | written test  |
| W05 | knows the principles of perioperative safety, preparation of the patient for surgery, administering general and local anaesthesia and controlled sedation  | K_F.W5  | written test  |
| W06 | knows postoperative treatment with analgesic therapy and postoperative monitoring  | K_F.W6  | written test  |
| W07 | knows the basics of early cancer detection and the principles of screening in oncology   | K_E.W24 | written test  |
| U01 | assists in a typical surgical procedure, knows how to prepare the operating field and provide local anaesthesia of the operated area   | K_F.U1  | - observation of student's work<br>- discussion in class  |
| U02 | uses basic surgical instruments  | K_F.U2  | - observation of student's work<br>- discussion in class  |
| U03 | comply with the principles of asepsis and antisepsis   | K_F.U3  | observation of student's work<br>- assessment of the preparation for classes<br>- discussion in class |
| U04 | is able to dress a simple wound, put on and change a sterile surgical dressing   | K_F.U4  | observation of student's work<br>- assessment of the preparation for classes<br>- discussion in class |

|     |  |         |   |
|-----|--|---------|---|
| U05 | assesses the radiographic findings for the most common types of fractures, especially long bone fractures  | K_F.U7  | observation of student's work<br>- assessment of the preparation for classes<br>- discussion in class |
| U06 | performs temporary immobilization of the limb, selects the type of immobilization necessary for application in typical clinical situations and controls the correct blood supply to the limb after immobilization dressing placement | K_F.U8  | observation of student's work<br>- assessment of the preparation for classes<br>- discussion in class |
| U07 | is able to treat external bleeding   | K_F.U9  | observation of student's work<br>- assessment of the preparation for classes<br>- discussion in class |
| U08 | performs differential diagnosis of the most common diseases of adults and children   | K_E.U12 | - observation of student's work   |
| U09 | suggests individualization of current therapeutic guidelines and other methods of treatment in the case of ineffectiveness or contraindications to standard therapy  | K_E.U18 | - assessment of the preparation for classes   |
| K01 | is aware of the patient's rights   | K_K11   | - discussion in class   |
| K02 | is able to solve the most frequent problems connected with the performance of the profession   | K_K12   | - observation of student's work   |
| K03 | can maintain medical confidentiality   | K_K14   | - assessment of the preparation for classes   |
| K04 | is aware of his/her own limitations and knows when to turn to experts  | K_K17   | - discussion in class   |

**Table of learning outcomes in relation to the form of classes**

| Number of learning outcome | Learning outcomes | Form of the classes |         |                     |                    |             |            |             |
|----------------------------|-------------------|---------------------|---------|---------------------|--------------------|-------------|------------|-------------|
|                            |                   | Lecture             | Seminar | Practical Exercises | Clinical exercises | Simulations | E-learning | Other forms |
|                            |                   |                     | x       |                     |                    |             |            |             |

|  |         |  |   |   |   |  |  |  |
|--|---------|--|---|---|---|--|--|--|
|  | K_F.W1  |  |   |   |   |  |  |  |
|  | K_F.W2  |  | x |   |   |  |  |  |
|  | K_F.W3  |  | x |   |   |  |  |  |
|  | K_F.W4  |  | x |   |   |  |  |  |
|  | K_F.W5  |  |   |   | x |  |  |  |
|  | K_F.W6  |  |   | x | x |  |  |  |
|  | K_F.W24 |  |   |   | x |  |  |  |
|  | K_F.U1  |  |   | x | x |  |  |  |
|  | K_F.U2  |  |   |   | x |  |  |  |
|  | K_F.U3  |  |   | x | x |  |  |  |
|  | K_F.U4  |  |   | x | x |  |  |  |
|  | K_F.U7  |  |   |   | x |  |  |  |
|  | K_F.U8  |  |   | x |   |  |  |  |
|  | K_F.U9  |  |   |   | x |  |  |  |
|  | K_F.U12 |  |   |   | x |  |  |  |
|  | K_F.U18 |  |   |   | x |  |  |  |
|  | K_K11   |  |   |   | x |  |  |  |
|  | K_K12   |  |   |   | x |  |  |  |
|  | K_K14   |  |   |   | x |  |  |  |
|  | K_K17   |  |   |   | x |  |  |  |

| <b>TABLE OF CURRICULUM</b>              |  |                        |   |
|---|--|------------------------|---|
| <b>Curriculum number</b>                | <b>Curriculum content</b>  | <b>Number of hours</b> | <b>Reference to the learning outcomes for the CLASSES</b> |
| <b>Winter semester, summer semester</b> |  |                        |   |
| <b>Lectures</b>                         |  |                        |   |
| TK01                                    | Scoliosis diagnosis and treatment. Postural defects. Congenital defects of the spine, chest and neck. Scheuermann's disease. Meningo-spinal hernia.  | 2                      | W02<br>K02, K03, K04                                      |
| TK02                                    | Hip dysplasia - diagnosis and treatment. Painful pediatric hip. Sterile bone necrosis.   | 2                      | W02, W04<br>K02, K03, K04                                 |
| TK03                                    | Osteoarthritis - diagnosis and treatment. Inflammatory joint diseases. RA. Bechterev's disease. Still's disease. Tuberculosis of the joints. Reconstructive procedures of joints. Osteotomy, joint alloplasty - indications, complications of surgical treatment.              | 2                      | W01, W03, W04, W06<br>K02, K03, K04                       |
| TK04                                    | Oncology of the locomotor system. Benign and malignant bone tumors. Treatment and diagnosis of bone tumors.  | 2                      | W01, W03, W04<br>W07<br>K02, K03, K04                     |
| <b>Seminars</b>                         |  |                        |   |
| TK01                                    | Classification of injuries. Basic principles of treatment of musculoskeletal injuries. Conservative and surgical treatment of fractures. Complications of fracture treatment. Traumatology of lower limb. Pelvic fractures. Diagnostics and treatment. Arthroscopic treatment. | 2,25                   | W01, W03, W04, W05, W06<br>K01, K02, K03, K04             |
| TK02                                    | Traumatology of the upper limb. Diagnosis and treatment. Injuries of soft tissues. Open fractures  | 2,25                   | W01, W03<br>U01, U02; U03, U09<br>K04                     |
| TK03                                    | Diseases of the foot and ankle joint in childhood. Osteochondral necrosis of joints. Clubfoot. Basic principles of diagnostics and treatment of childhood injuries.  | 2,25                   | W02, W04<br>K01, K02, K03, K04                            |
| TK04                                    | Spinal injuries. Diagnosis and treatment. Neurological examination of patients with spinal injuries.   | 2,25                   | W01, W03, W04<br>U01, U02, U03, U05<br>K01, K04           |

| Practical Exercises |  |   |  |
|---------------------|--|---|--|
| TK01                | Clinical evaluation and treatment of lower limb injuries and pelvic fractures. Conservative and surgical treatment of fractures. Complications of fracture treatment. Arthroscopic procedures. | 4 | U01, U02, U03, U04, U05, U06, U07, U08<br>K01, K02, K03, K04 |
| TK02                | Examination of patients with spinal injuries. Diagnosis and treatment. Neurological examination of patients with spinal injuries.  | 4 | U01, U02, U03, U05<br>K01, K04                               |
| TK03                | Clinical evaluation and treatment of upper extremity injuries. Evaluation of soft tissue injuries and open fractures   | 4 | U01, U02; U03, U09<br>K04                                    |
| TK04                | Diagnostics and treatment of patients with degenerative and inflammatory joint disease. Reconstructive treatment of joints.  | 4 | U05<br>K02, K03, K04   |
| TK05                | Examination and diagnosis of patients with bone tumors. Treatment of bone tumors.  | 4 | U05, U08, U09<br>K02, K03, K04                               |
| TK06                | Clinical evaluation of patients with postural defects. Differentiation and diagnostics of spinal defects in children.  | 4 | U09<br>K02, K03, K04   |
| TK07                | Principles of diagnosis and treatment of childhood injuries  | 4 | U05<br>K01, K02, K03, K04                                    |
| TK08                | Evaluation of patients with hip dysplasia and other hip conditions.  | 4 | U05<br>K02, K03, K04   |

### Recommended Literature:

#### Reference literature

1. "Ortopedia i Traumatologia Podręcznik dla studentów medycyny" Wydawnictwo Naukowe Exemplum Poznań 2017

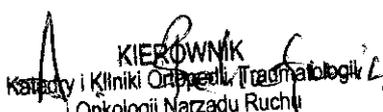
2. Gaździk T. (2009) Ortopedia i Traumatologia. Tom 1 -2. PZWL, Warszawa

#### Complementary literature

1. „Wiktora Degi ortopedia i rehabilitacja. Wybrane zagadnienia z zakresu chorób i urazów narządu ruchu dla studentów i lekarzy”. Redakcja naukowa: Jacek Kruczyński, Andrzej Szulc; Wydawnictwo: Wydawnictwo Lekarskie PZWL, 2015

2. "Urazy kostno-stawowe u dzieci". Autor Krzysztof Okłot Wydawnictwo: Wydawnictwo Lekarskie PZWL, 2008.

| <b>Student workload</b>  |  |
|--|--|
| Form of student workload<br>(class participation, activity, report preparation, etc.)  | Student workload [h].                    |
|  | In the teacher's assessment<br>(opinion) |
| Contact hours with the teacher/instructor  | 48                                       |
| Preparation for exercise/seminar   | 8  |
| Reading the indicated literature   | 8  |
| Writing a lab/exercise report/preparing a project/reference, etc.  | -  |
| Preparation for the test/ short test   | -  |
| Preparing for the exam   | 15                                       |
| Other .....  |  |
| Total student workload   | 79                                       |
| ECTS credits   | 3  |
| <b>Notes</b>   |  |
| <p>In order to complete the course and to be allowed to take an examination, students must obtain credit for all classes provided for in the curriculum.</p> <p>In the case of excused absence - the obligation to make up the missed classes after prior arrangement with the assistant responsible for teaching or the assistant who teaches the class</p> |  |

  
**KIEROWNIK**  
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