Faculty: Faculty of Medicine MUL  Major: Medical  Specialty:  Level of study: I (Bachelor studies) □ II (Master studies) □ Integra studies □  Mode of study: full-time X part-time (extramural)  Year of study: I□ II □ III X IV □ V□ V□ Semester: □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	odule code	LK.3.F.OM									
Faculty: Faculty of Medicine MUL  Major: Medical  Specialty:  Level of study: I (Bachelor studies)   II (Master studies)   Integra studies   Mode of study: full-time X part-time (extramural)  Year of study: I   II   III X IV   V   VI   Semester:   1   2   1   9   10    Module/course type: obligatory X elective    Language of instruction: Polish   English X  Form of education	ated Master	studies <b>X</b> Doctoral									
Specialty:  Level of study:  Mode of study:  I (Bachelor studies)   II (Master studies)   Integral studies    Mode of study:  I   II   III   X   IV   V   V   V   V   V   V   V   V	3   4   5	studies X Doctoral									
Level of study:    Mode of study:   full-time X part-time (extramural)	3   4   5										
Mode of study:    Studies   Full-time X   part-time (extramural)	3   4   5										
Year of study: I I II III X IV V V VI VI Semester: 1 2 3 9 10 7   Module/course type: obligatory X elective I   Language of instruction: Polish I English X   Form of education Hours   Lecture Seminar   Seminar 6   Laboratory class 24   E-learning Practical class		6 <b>X</b> 7 ¬ 8 ¬									
Module/course type: obligatory X elective  Language of instruction: Polish Tenglish X  Form of education Hours  Lecture  Seminar 6  Laboratory class 24  E-learning  Practical class		6 <b>X</b> 7 ¬ 8 ¬									
Language of instruction: Polish T English X   Form of education Hours   Lecture 6   Seminar 6   Laboratory class 24   E-learning Practical class											
Form of education Hours  Lecture  Seminar 6  Laboratory class 24  E-learning  Practical class											
Lecture Seminar 6 Laboratory class 24 E-learning Practical class											
Seminar 6 Laboratory class 24 E-learning Practical class	Hours										
Laboratory class 24  E-learning  Practical class											
E-learning Practical class	6										
Practical class											
Internship	70 11-1-1-1										
Other											
TOTAL 30											
Student's work input  (participation in class, preparation, evaluation, etc.)  Student's hourly workload	Student's hourly workload										
1. In class 30	30										
2. Student's own work including:  1 Peparation for class 2 Preparation for partials and finals											
Summary of the student's workload 60											
ECTS points for module/course 2											

**Educational objectives:** The Course will cover main fields in orthopedics and rehabilitation of movement apparatus. Special attention will be put to pediatric orthopedics and trauma including: congenital and acquired deformities, fractures; post-traumatic, post-inflammatory and neurological disorders and deformities of movement apparatus at children and youths. Illnesses and deformities in upper and lower extremities and in the trunk. Statistics, social problems, psychological problems, economy problems connected with orthopedic surgery will be presented.

In addition the students will learn clinical examinations in orthopedic surgery: body symmetry and proportions, length of extremities, circumferences of extremities, range of joint movements – measurement 'according "0" position'. Analysis of gait & of stand position. Standing and gait - influences on growth and development of spine, clinical tests in orthopedics.

During the Course major problems in pediatric orthopedics will be presented such as: developmental

hip dysplasia (DDH), Perthes disease (aseptic necrosis of femur head) coxitis fugax, slipped femoral capital epiphysis, coxa vara congenita; coxa valga, Blount disease; genua valga, club foot (equinus deformity), idiopathic scoliosis, other types of scoliosis – congenital, neurogenic (paralytic), deformities of spine in other syndromes and illnesses, harmful posture habits, paresis plexus brachialis (neuropraxia, aksonotmesis, neurotmesis), spina bifida, cerebral palsy (CP), fractures of upper and lower extremities.

The matrix of learning outcomes for module/ subject with reference to verification methods of the intended educational outcomes and forms of instruction:

Learning outcome code	A student who has obtained a credit for the module/course has the knowledge/skill to:	Methods of verifying the achievement of the intended learning outcomes:	Form of instruction  * provide the symbol
W01 (F.W1.)	knows and understands the causes, symptoms, principles of diagnosing and therapeutic management in relation to most common diseases requiring surgical intervention, with consideration to differences associated with young age, including, in particular:  d) congenital and acquired disorders of movement organs, bone fractures and injuries of children	Final test in writing	Lectures Seminar Labs
U01 (F.U1.)	assists in a standard surgical procedure, can prepare the operational field and apply local anesthesia to the operated area	Observation during labs	Labs
K01	is sensitive to child's suffering and understands parental anxiety	Observation during labs	Labs
K02	actively participates in classes, behaves appropriately	Observation during labs	Labs
K03	can work in a group	Observation during labs	Labs

# EXAMPLES OF METHODS VERIFYING THE ACHIEVEMENT OF THE INTENDED LEARNING OUTCOMES:

<u>In terms of knowledge:</u> Oral exam (non-standardized, standardized, traditional, problem-based).

Written exam – the student produces/identifies answers )essay, report; structured short-answer questions /SSQ/; multiple choice questions /MCQ/; multiple response questions /MRQ/; matching test; true/false test; open cloze test\_)

<u>In terms of skills:</u> practical exam; Objective Structured Clinical Examination /OSCE/; Mini-CEX (mini – clinical examination); completion of a given assignment; project, presentation.

# In terms of social competences:

A reflective essay; an extended observation by a supervisor/tutor; 360-degree assessment (feedback from teachers, peers, patients, other co-workers); self-assessment (portfolio included).

Course content: (use keywords referring to the content of each class following the intended learning outcomes):

#### Lectures:

- 1. Introduction to pediatric orthopedics,
- 2. bone growth, damage to growth zones and cartilages.

- 3. DDH, Perthes disease; Slipped capital epiphysis, operative treatment of hip joint;
- 4. Cerebral palsy, Spina bifida,
- 5. bone tumors in children;
- 6. Harmful postures, non-operative & operative treatment of scoliosis, wry neck;
- 7. Arthroscopy in children,

#### Seminar:

- 1. Pediatric trauma & fractures,
- 2. Disturbances of axis of extremities, congenital deformities of feet;
- 3. leg length discrepancy, PRP

#### Laboratory class:

- 1. Students will take active part during labs in Ward activities
- 2. Students will take active part during labs in Outpatient Department activities.

#### Others (please specify):

1. In specific days some students will also participate in operative procedures in operative theatre.

# Obligatory literature:

- 1. 1. Tachdjian's Pediatric Orthopedics (3 Volume Set) by John Herring, fourth edition 2007
- 2. Fundamentals of Pediatric Orthopedics, Pizuttillo 1993
- 3. Netter's Orthopedics by Walter Greene, MD; Hardbound, 512 pages, publication date: JAN-2006; ISBN-13: 978-1-929007-02-8; ISBN-10: 1-929007-02-7
- 4. Lovell and Winter's Pediatric Orthopedics (2 Volume Set) by Raymond T. Morrissy & Stuart L. Weinstein

#### Complementary literature:

- 1. 1. Campbell's Operative Orthopedics, Four Volume Set by S. Terry Canale
- 2. Pediatric Orthopedics in Practice Hefti, Fritz 2007, XI, 781 p. 679 illus. (and 1164 individual illus.), 79 cartoons., ISBN: 978-3-540-69963-7
- 3. Journal of Pediatric Orthopedics Part B online
- 4. www.wheelessonline.com

# Requirements for didactic aids (e.g. laboratory, multimedia projector, others...)

- 1. Laptop,
- 2. multimedia projector

# Conditions for obtaining a credit for the subject:

Presence during lectures, seminaries and labs. Positive exam outcome.

# The name and address of the department/clinic where the course is taught (module/course); contact details (phone number/ email address):

Pediatric Orthopedics & Rehabilitation Department of Medical University of Lublin, University Pediatric Hospital, Gębali 2 Street, VIth floor

81 741 56 53, gkandzierski@dsk.lublin.pl

# Names of the author/authors of this syllabus:

- 1. Grzegorz Kandzierski,
- 2. Jarosław Kałakucki MD PhD

#### Names of the teacher/teachers conducting classes:

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- 2. Łukasz Matuszewski MD PhD,
- 3. Jacek Karski MD PhD,
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- 5. Tomasz Raganowicz MD PhD,
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- 11. Grzegorz Starobrat MD,
- 12. Anna Danielewicz MD PhD,
- 13. Marcin Romanowicz MD

Signature of the head of the department/	clin	nt/	tmen	part	de	the	of	head	the	of	Signature
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Katedry Ortopedii i Repal Macji Dziecięcej Katedry Ortoped Occasoco Universytota Medyeznogo w Lublinie

- bab. n. med. Grzegorz Kandzierski - prof. nadzw. UM

Date of submission:

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