KAPITAŁ LUDZKI
NARODOWA STRATEGIA SPÓJNOŚCI

UNIWERSYTET MEDYCZNY W ŁODZI

UNIA EUROPEJSKA
EUROPEJSKI
FUNDUSZ SPOŁECZNY

Projekt „OPERACJA SUKCES – unikatowy model kształcenia na Wydziale Lekarskim Uniwersytetu Medycznego w Łodzi odpowiedzią na potrzeby gospodarki opartej na wiedzy" współfinansowany ze środków Europejskiego Funduszu Społecznego, w ramach Programu Operacyjnego Kapitał Ludzki.

COURSE UNIT DESCRIPTION

1. Course unit title

Integrated Paediatric Dentistry

2. Course unit code

3. Clinic / Department

Department of Paediatric Dentistry
Department of Orthodontics

4. Type of the course unit

Compulsory

5. Level of the course unit

master degree level

6. Course profile

General academic (Group of specific learning outcomes: clinical sciences, principal subjects)

7. Year of study

V

8. Semester when the course unit is delivered

10^{th}

9. Number of face-to-face session hours

40 hours:
Seminar groups-8 hours, clinical groups 32 hours

10.Number of ECTS credits allocated

3

11. Course unit coordinator

Joanna Szczepańska Professor DMD, PhD

12. Names of faculty teachers

Elżbieta Pawłowska Professor DMD, PhD, Patrycja Proc dr hab. DMD PhD; Agnieszka Bruzda-Zwiech DMD, PhD; Katarzyna Kozłowska DMD,PhD; Agnieszka Kozubska- Markus DMD, PhD; Maciej Mikołajczyk DMD,PhD; Sylwia Majewska-Beśka DMD, PhD

Patrycja Pietrzak DMD, PhD, Adrian Strzecki DMD, PhD

13. Prerequisites and co-requisites

to finish the courses and obtain credits in:
Paediatric Dentistry on 2nd , 3 rd and 4th year of the study
Orthodontics 4th and 5th year of the study
Physiology of Masticatory System

14. Course contents

Classes -10th semester

The course aims at gaining by students the knowledge and skills that are needed for effective comprehensive prophylactics and dental treatment in children and adolescents, as well as promoting the understanding of the need of holistic care of oral cavity health. The aim of the course is also improvement of students' skills needed to achieve integrated/multidisciplinary dental care in children with emphasis on Paediatric dentistry and Orthodontics

1. History taking, oral examination and formulation of integrated (multidisciplinary) treatment plan in aspects of holistic oral cavity health. **(Paediatric Dentistry)**
2. Diagnosis, prophylaxis and treatment of parafunctions and dysfunctions, concerning the stomatognathic system. Prophylaxis and interceptive orthodontic treatment of malocclusions with regard to child's age. **(orthodontics)**
3. Diagnostic differentiation between treatment of mild malocclusions and severe malocclusions, requiring specialized treatment. **(orthodontics)**
4. Stainless steel crowns – indications and placement technique in children. **(Paediatric Dentistry)**
5. Consequences, involving premature loss of primary teeth, indications and design of space maintainers. **(orthodontics)**
6. Consequences, regarding extractions of permanent teeth due to caries in children, taking into consideration development of occlusion and its possible pathology. Indications for extractions of first permanent molars.**(orthodontics)**
7. Comprehensive (multidisciplinary) treatment in children with chosen systemic diseases and congenital syndromes with oral manifestation. **(Paediatric Dentistry)**
8. **Quiz and credit of the essay (see Assessment methods and criteria- point 19).**

15. Learning activities and teaching methods

Seminars supported by multimedia presentations
Clinical training

16. Learning outcomes of the course unit

Knowledge component	
Student know the principles of treatment planning including: prevention, conservative treatment, active orthodontic treatment and interdisciplinary dental management of the child in the period of mixed dentition.	
Aims Class 1 Students know the principles of comprehensive history taking, clinical examination and formulating of integrated treatment plan (conservative and orthodontic management) in aspects of holistic oral cavity health in children	Objectives Students know: • the principles of comprehensive history taking relevant to child's conservative and orthodontic treatment • describe the investigation to asses oral hygiene and periodontal status • determine the type of malocclusion • plan radiographs essential for accurate diagnosis • explain the principles of analysis of dental casts • describe the principles of formulating conservative and orthodontic treatment plan adjusted to the child's age

Cass 2 Students possess the knowledge of diagnosis, prophylaxis and treatment of parafunctions, dysfunctions; prophylaxis and interceptive orthodontic treatment of malocclusions with regard to child's age. Stage of "ugly duckling."	Students know: • parafunctions and dysfunctions of stomatognathic system • rules with regard to planning prophylactic and interceptive treatment of mild malocclusions during different stages of child's development. • rules, regarding stripping of primary teeth' cusps
Class 3 Students possess the knowledge, regarding diagnostic methods of differentiation between treatment of mild malocclusions and severe malocclusions, requiring specialized treatment. Student is able to name and describe simple methods of malocclusion treatment.	Students know: • the diagnostic differentiation between norm and pathology in oral cavity with regard to child's age – dispanseric groups. • the differentiation between indications and treatment of mild malocclusions and severe malocclusions, requiring specialized treatment • treatment needs (IOTN index) • indications for miotherapy, primary teeth stripping, standard appliance application such as: vestibular plate, Friel's disc, trainer, chin cup appliance. • simple orthodontic appliances such as: inclined plane
Class 4 Students gain knowledge on indications for use of stainless steel crowns and the placement technique.	Students know: • the indications for placement of stainless steel crowns on deciduous and permanent molar teeth in children • the technique of placement of stainless steel crowns • the treatment options in patients at developmental age, in whom there are indications for extraction of first permanent molars
Class 5 Student possesses the knowledge, concerning consequences, involving premature loss of primary teeth, indications and design of space maintainers.	Students know: • the consequences, regarding premature loss of primary teeth • the indications and design of space maintainers (permanent and removable) and prostheses for children (prophylactic; for active treatment; retentive)
Class 6 Students possess the knowledge about consequences, regarding extractions of permanent teeth due to caries in children, taking into consideration development of occlusion and its possible pathology. Student have knowledge concerning the rehabilitation of stomatognathic system.	Students know: • the consequences, concerning extractions of permanent teeth due to caries and it's complications in children, with special regard to the influence of extractions on malocclusions and necessity of first permanent molars' extractions • full rehabilitation of stomatognathic system due to application of prostheses in children
Class 7 Students know the principles of comprehensive (multidisciplinary) treatment in children with chosen	Students know: • the principles of multidisciplinlinary treatment planning in children who due to genetic or environmental factors are affected with

systemic diseases and congenital syndromes manifesting with hypodontia, oligodontia or hyperdontia.	anomalies of teeth number (i.e. Ectodermal dysplasias, Down syndrome, Riegier syndrome, William syndrome, Ellis-van-Creveld syndrome, cleidocranial dysplasia, dento-alveolar clefting)
Class 8 Getting credit (see point 19)	

Skills component

The student is able to recognize the needs for preventive, conservative and surgical treatment, as well as prophylaxis and early orthodontic treatment of a patient who does not require orthodontic treatment orthodontic appliances.

- Students are able to:
- take comprehensive history including diet consideration and oral hygiene habits
- conduct clinical examination including the assessment of the dentition status, periodontium status, oral hygiene and occlusion
- chose and interpret radiographs essential for accurate diagnosis
- make an orthodontic impression and analyze orthodontic dental casts
- present integrated preventive and operative treatment plan based on holistic diagnosis and adjusted to the child
- prepare instructions for patient
- diagnose, prevent and eliminate parafunctions and dysfunctions of stomatognathic system
- recognize the stage of "ugly duckling"
- assess the specialized treatment need of stomatognathic system during developmental period
- evaluate the consequences of permanent teeth' extractions in children
- make an early diagnosis and conduct an appropriate treatment of malocclusions, dependent on child's age
- place the stainless steel crowns on molar teeth
- design a simple orthodontic appliance
- plan and design an appropriate space maintainer or prosthesis for children
- formulate diagnosis and treatment plan (the conservative, orthodontic and surgical the conservative, orthodontic and surgical management) in patient with systemic diseases and congenital syndromes manifesting themselves with hypodontia, oligodontia, or hyperdontia i.e. Ectodermal dysplasia, Down syndrome, Riegier syndrome, Williams syndrome, Ellis-van-Creveld syndrome, cleido-cranial dysplasia, dento-alveolar clefting

17. Attitudes, transferrable and social competencies:

Students should be aware of :

- the importance of the proper assessment of oro-facial status and diagnosing of oral diseases in children and adolescents
- the importance of multidyscyplinary dental treatment of patient in developmental age and the need of the interpersonal skills development to maximize the efficacy of dental treatment in children

18. Recommended or required learning resources

Main textbooks

1. Cameron CA, Widmer RP: Handbook of Pediatric Dentistry, 5th Edition. 2021 Print Book ISBN: 9780702079856 eBook ISBN: 9780702079870
2. Compendium of Paediatric Dentistry ed. D.Olczak-Kowalczyk, Med. Tour Press International, 2024. ISBN 978-83-87717-35-3
3. Martyn T. Cobourne Andrew T. DiBiase " Handbook of orthodontics" Mosby Edition ISBN-10: 0723434506 February 2010
4. William R. Proffit " Contemporary Orthodontics". Mosby; 4 Edition ISBN-10: 0323046134 January 2007

19. Assessment methods and criteria

In order to be admitted to semester quiz student should attend all classes of the course, complete required practical procedures, prepare a written "essay of patient integrated treatment (the form available on the website at www.umed.pl/stom.dziecieca/ programs for students)
Final quiz (20 questions test – 8 questions on Paediatric Dentistry, 12 questions on Orthodontics) - on last class

Rating scale of semester quiz
≤ 11 points- fail (2)
12-13 points – sufficient (3)
14-15 points –satisfactory (3.5)
16-17 points– good (4)
18-19 points - very good (4.5)
20 points –excellent (5)

20. Additional info and support

http://stomdziecieca.umed.pl (tab: Paediatric Dentistry)
Students should respect the rules of Department of Paediatric Dentistry, Medical University of Lodz (see tab: Rule-Regulations in Department of Paediatric Dentistry)