



# Pomeranian Medical University in Szczecin

## SYLLABUS of the MODULE (SUBJECT) General Information

| Module title: Paedodontics and Dental Prophylaxis |  |
|---|--|
| Module type                                       | Obligatory   |
| Faculty PMU                                       | Faculty of Medicine and Dentistry  |
| Major   | Dentistry  |
| Level of study                                    | long-cycle (S2J)   |
| Mode of study                                     | full-time studies  |
| Year of studies, semester                         | Year IV, semester VII, VIII  |
| ECTS credits (incl. semester breakdown)           | 4 (semester VII-2, semester VIII-2)  |
| Type/s of training                                | seminars -15 h / practical-60 h  |
| Form of assessment*                               | <input checked="" type="checkbox"/> graded assessment: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> descriptive</li> <li><input checked="" type="checkbox"/> test</li> <li><input checked="" type="checkbox"/> practical</li> <li><input type="checkbox"/> oral</li> </ul> <input type="checkbox"/> non-graded assessment<br><input type="checkbox"/> final examination <ul style="list-style-type: none"> <li><input type="checkbox"/> descriptive</li> <li><input type="checkbox"/> test</li> <li><input type="checkbox"/> practical</li> <li><input type="checkbox"/> oral</li> </ul> |
| Head of the Department/ Clinic, Unit              | Dr n. med. Joanna Manowiec   |
| Tutor responsible for the module                  | Dr n.med. Magdalena Gońda-Domin<br>Dr n.med. Karolina Węsierska<br>tel. +48 91 466 1730, e-mail: zstdz@pum.edu.pl  |
| Department's/ Clinic's/ Unit's website            | INDEPENDENT LABORATORY OF<br>PEADIATRIC DENTISTRY<br><a href="https://www.pum.edu.pl/wydzialy/wydzial-lekarsko-stomatologiczny/zaklad-stomatologii-dzieciecej">https://www.pum.edu.pl/wydzialy/wydzial-lekarsko-stomatologiczny/zaklad-stomatologii-dzieciecej</a>   |
| Language  | English  |

\* replace ☐ into ☒ where applicable



**Detailed information**

|                                      |             |   |
|--------------------------------------|-------------|---|
| <b>Module objectives</b>             |             | Expanding theoretical knowledge, consolidating and acquiring new practical skills in the field of health promotion, prevention, diagnosis and treatment of masticatory diseases in developmental age. |
| Prerequisite /essential requirements | Knowledge   |   |
|                                      | Skills      | <i>Knowledge and skills at the III year of study in the field of dentistry</i>  |
|                                      | Competences |   |

**Description of the learning outcomes for the subject /module**

| <b>No. of learning outcome</b> | <b>Student, who has passed the (subject) knows /is able to /can:</b>   | <b>SYMBOL (referring the standards)</b> | <b>Method of verification of learning outcomes*</b> |
|--------------------------------|--|---|---|
| W01                            | Knows occlusion norms at various stages of individual development and deviations from norms  | K_F.W01                                 | S   |
| W02                            | Knows the rules of prophylactic-therapeutic procedures in diseases of the stomatognathic system of patients in the developmental age | K_F.W03                                 | K, W  |
| W03                            | Knows the viral, bacterial and fungal flora of the oral cavity and its meaning   | K_F.W04                                 | K   |
| W04                            | Knows the symptoms for certain diseases of oral cavity, head and neck with regard to the age groups                                  | K_F.W05                                 | K, W  |
| W05                            | Knows course and indicates treatment procedures for certain diseases of oral cavity, head and neck with regard to age groups         | K_F.W05                                 | K, W  |
| W06                            | Knows and lists the principles of treatment of the pulp diseases in children and adolescents   | K_F.W07                                 | K, W  |
| W07                            | Knows the principles of the treatment of diseases of the mineralized tissues in children and adolescents.                            | K_F.W07                                 | K, W  |
| W08                            | Knows the treatment protocols in case of injuries of teeth and facial bones of children and adolescents.                             | K_F.W07                                 | K, W  |
| W09                            | Knows the principles of treatment of the diseases of periapical periodontium in children and adolescents.                            | K_F.W08                                 | K, W  |
| W10                            | Knows causes and procedures for management in case of complications of stomatognathic system diseases.                               | K_F.W14                                 | K, W  |
| W11                            | Knows therapeutic methods of preventing and controlling pain, stress and anxiety   | K_F.W17                                 | S   |

|     |  |         |   |
|-----|--|---------|---|
| U01 | Interviews patient in developmental age and his/her parents/ caregivers  | K_F.U01 | S |
| U02 | Carries out physical examination of patient in developmental age   | K_F.U02 | S |
| U03 | Provides patient with explanation about ailment and their nature   | K_F.U03 | S |
| U04 | Prescribes treatment confirmed by patient's (parents'/ caregivers') free consent   | K_F.U03 | S |
| U05 | Informs the patient and his/her parents/ caregivers about the prognosis  | K_F.U03 | S |
| U06 | Provides patient or his/her relatives with bad information about health state  | K_F.U04 | S |
| U07 | Interprets results of ancillary tests of patients in developmental age   | K_F.U06 | S |
| U08 | Finds indications to perform a certain dental procedure in patients in developmental age   | K_F.U07 | S |
| U09 | Prevents the oral cavity diseases of patients in developmental age   | K_F.U08 | S |
| U10 | Identifies diseases of the stomatognathic system, traumatic injuries of the teeth and jaw bones of patients in developmental age   | K_F.U09 | S |
| U11 | Provides treatment procedures applicable to diseases of the tissues of stomatognathic system, traumatic injuries of the teeth and jaw bones, basing on the treatment protocols for children and adolescence. | K_F.U09 | S |
| U12 | Provides treatment of acute and chronic tooth-related and non-tooth-related inflammatory processes of the oral soft tissues, periodontal tissues and jaw bones   | K_F.U10 | S |
| U13 | Choose and provides treatment procedures applicable to cases of general and local complications during and after dental treatment  | K_F.U11 | S |
| U14 | Keeps day-to-day patient's records.<br>Refers patient to special dental and medical treatment and prescribes ancillary tests   | K_F.U13 | S |
| U15 | Selects and performs tests determining the number of cariogenic bacteria in the oral cavity  | K_F.U17 | S |
| U16 | Indicates and determines treatment in diseases of stomatognathic system  | K_F.U18 | S |
| U17 | Uses the certain drugs during and after dental procedure to relieve pain and stress  | K_F.U19 | S |
| K01 | Accepts the need of ethical standards in medical practice  | K_K02   | O |

|     |   |       |   |
|-----|---|-------|---|
| K02 | Understands the sense of responsibility for entrusted property                          | K_K07 | O |
| K03 | Shows the habit of self-education and lifelong education                                | K_K01 | O |
| K04 | Shows respect to a patient and understands the specificity of working with the children | K_K05 | O |
| K05 | Understands proper examiner– examined relationship                                      | K_K08 | O |

Table presenting LEARNING OUTCOMES in relation to the form of classes

| No. of learning outcome | Learning outcomes | Type of training |         |           |                  |             |            |          |
|-------------------------|-------------------|------------------|---------|-----------|------------------|-------------|------------|----------|
|                         |                   | Lecture          | Seminar | Practical | Clinical classes | Simulations | E-learning | Other... |
| W01                     | K_F.W01           |                  | X       |           |                  |             |            |          |
| W02                     | K_F.W03           |                  | X       |           |                  |             |            |          |
| W03                     | K_F.W04           |                  | X       |           |                  |             |            |          |
| W04                     | K_F.W05           |                  | X       |           |                  |             |            |          |
| W05                     | K_F.W05           |                  | X       |           |                  |             |            |          |
| W06                     | K_F.W07           |                  | X       |           |                  |             |            |          |
| W07                     | K_F.W07           |                  | X       |           |                  |             |            |          |
| W08                     | K_F.W07           |                  | X       |           |                  |             |            |          |
| W09                     | K_F.W08           |                  | X       |           |                  |             |            |          |
| W10                     | K_F.W14           |                  | X       |           |                  |             |            |          |
| W11                     | K_F.W17           |                  | X       |           |                  |             |            |          |
| U01                     | K_F.U01           |                  |         |           | X                |             |            |          |
| U02                     | K_F.U02           |                  |         |           | X                |             |            |          |
| U03                     | K_F.U03           |                  |         |           | X                |             |            |          |
| U04                     | K_F.U03           |                  |         |           | X                |             |            |          |
| U05                     | K_F.U03           |                  |         |           | X                |             |            |          |
| U06                     | K_F.U04           |                  |         |           | X                |             |            |          |
| U07                     | K_F.U06           |                  |         |           | X                |             |            |          |
| U08                     | K_F.U07           |                  |         |           | X                |             |            |          |
| U09                     | K_F.U08           |                  |         |           | X                |             |            |          |
| U10                     | K_F.U09           |                  |         |           | X                |             |            |          |
| U11                     | K_F.U09           |                  |         |           | X                |             |            |          |
| U12                     | K_F.U10           |                  |         |           | X                |             |            |          |
| U13                     | K_F.U11           |                  |         |           | X                |             |            |          |
| U14                     | K_F.U13           |                  |         |           | X                |             |            |          |
| U15                     | K_F.U17           |                  |         |           | X                |             |            |          |
| U16                     | K_F.U18           |                  |         |           | X                |             |            |          |
| U17                     | K_F.U19           |                  |         |           | X                |             |            |          |
| K01                     | K_K02             |                  |         |           | X                |             |            |          |
| K02                     | K_K07             |                  |         |           | X                |             |            |          |
| K03                     | K_K01             |                  |         |           | X                |             |            |          |
| K04                     | K_K05             |                  |         |           | X                |             |            |          |
| K05                     | K_K08             |                  |         |           | X                |             |            |          |

| Table presenting TEACHING PROGRAMME |   |              |                                 |
|-------------------------------------|---|--------------|---------------------------------|
| No. of a teaching programme         | Teaching programme  | No. of hours | References to learning outcomes |
| <b>Winter semester</b>              |   |              |                                 |
| <b>Seminars</b>                     |   |              |                                 |
| TK01                                | Diseases of the pulp of primary and permanent immature teeth. Classification and diagnostics. Differences in the structure of the pulp of primary and permanent teeth. Pathogenesis of pulp diseases (sclerotic dentin, defensive dentin). Hyperplastic pulpitis. Inflammatory internal resorption. Removable internal resorption. PCO tooth obliteration. Pseudoethomas. Diagnosis of pulpopathy and changes in periapical tissues (history, physical examination, viability tests, Hall scale). Classification of pulp diseases in primary and immature permanent teeth. Differentiation of acute and chronic periodontal inflammation.   | 1            | W02, W03, W06, W09, W010, W11   |
| TK02                                | Diseases of the pulp of primary teeth. Classification: American Academy of Pediatric Dentistry (reversible inflammation, irreversible inflammation, necrosis); simplified classification (reversible pulpopathy, partial irreversible pulpopathy, total irreversible pulpopathy). Methods of treatment (biological and non-biological in-life, mortal). Drugs and materials used in milk tooth endodontics. Local and general indications and contraindications for the treatment of pulp of milk teeth. Direct and indirect coverage, total lifelong amputation, amputation after devitalization, pulp extirpation - treatment techniques. | 2            | W02, W03, W06, W09, W010, W11   |
| TK03                                | Pulp in immature permanent teeth. Indirect pulp cupping method (one- and two-stage treatment). Direct pulp cupping method. Vital pulp amputation (partial and total). Apexogenesis. Apexification. Revascularization. Indications, contraindications, materials and procedures for the above procedures.  | 2            | W02, W03, W06, W09, W010, W11   |
| TK04                                | Etiology and epidemiology of injuries. Classification of injuries according to Ellis and Andreas according to WHO. Examination of the patient after injury: general medical and dental history, clinical examination, x-ray. Diagnosis and therapeutic management in enamel breakage, enamel fracture, uncomplicated and enamel dentin fracture and complicated permanent teeth.  | 2            | W01, W02, W08, W10, W11         |
| TK05                                | Diagnosis and treatment in uncomplicated and complicated crown-root fractures, root fractures, alveolar ridge of permanent teeth. Damage to the gums and oral mucosa (abrasions, bruises and rags) - treatment.   | 1            | W01, W02, W08, W10, W11         |

|      |   |   |                         |
|------|---|---|-------------------------|
| TK06 | Management of permanent teeth injuries:<br>Partial dislocations: Concussion, Subluxation, Extrusion, Intrusion, Lateral dislocation (definition, etiology, extent of damage, diagnosis, radiological recommendations, dental treatment, instructions for the patient, follow-up visits).  | 1 | W01, W02, W08, W10, W11 |
| TK07 | Management of permanent teeth injuries:<br>Avulsion of permanent teeth with open and closed root apex: (definition, etiology, extent of damage, diagnosis, radiological recommendations, dental treatment and factors determining the choice of treatment method, instructions for the patient, follow-up visits, prognosis).   | 1 | W01, W02, W08, W10, W11 |
| TK08 | Management of primary teeth injuries: (according to the scheme: etiology, extent of damage, diagnostics, patient recommendations, information for parents / caregivers, follow-up visits).<br>Concussion, Subluxation, subluxation. Elongation, extrusion. Lateral dislocation. Forcing, intrusion. Total dislocation, tooth extraction. Breakage, enamel rupture. Enamel fracture. Enamel-dentine fracture without pulp exposure and with pulp exposure. Root-fracture without pulp exposure and with pulp exposure. Root fracture. Alveolar fracture.                         | 1 | W01, W02, W08, W10, W11 |
| TK09 | Consequences of post-traumatic lesions of milk and permanent teeth. Prevention of post-traumatic damage. Early complications immediately after injury. Late complications (death of tooth pulp, resorption, inhibition of root development, obliteration of the tooth cavity). Consequences primary teeth injuries (crown discoloration, pulp necrosis, periapical inflammation, premature root resorption, obliteration, formation of abscesses and cysts, ankylosis).<br>Prevention of post-traumatic dental damage: primary, secondary and tertiary prevention.              | 1 | W01, W02, W08, W10,     |
| TK10 | Developmental diseases of hard teeth tissues of non-carious origin. Part 1. - causes, enamel hypoplasia, developmental and acquired discoloration.<br>Systemic causes of enamel and dentin developmental defects - factors from the prenatal, perinatal and postnatal periods. Local causes of enamel malformations. The mechanism of hypoplasia (definition and types of hypoplasia, clinical picture).<br>Discoloration formed during odontogenesis (hyperbilirubinemia, congenital porphyria, alkaptonuria, tetracycline discoloration) and after tooth eruption. Treatment. | 1 | W01, W02, W04, W05, W07 |
| TK11 | Developmental diseases of hard teeth tissues of non-carious origin. Part II - enamel hypomineralization (turbidity) with particular emphasis on fluorosis and MIH.<br>The mechanism of hypomineralization (definition, clinical picture). Fluorosis (causes and time of origin, clinical picture, fluorosis classification, characteristics,  | 1 | W01, W02, W04, W05, W07 |

|                          |   |    |   |
|--------------------------|---|----|---|
|                          | fluoride poisoning). MIH (causes and time of origin, clinical picture, stages of advancement, characteristics). Differentiation of fluorosis and other turbidity. Treatment.  |    |   |
| TK12                     | Developmental diseases of hard teeth tissues of non-carious origin. Part III - abnormalities in hard tissues caused by genetic factors. Developmental disorders of dentin and cement caused by genetic and environmental factors. Amelogenesis imperfecta. Dentine dysplasia. Regional odontodysplasia. Congenital dentin hypoplasia. Cement developmental disorders. | 1  | W01, W02, W04, W05, W07   |
| <b>Practical classes</b> |   |    |   |
| TK01                     | Treatment of patients. Examination of the child, assessment of hygiene indices, oral hygiene teaching, fluoride prophylaxis, preventive-treatment plan, caries risk assessment, prophylactic fissure sealing. Treatment of caries: filling the cavities. Shaping the child's dental attitude. Treatment of children's pulp diseases. First aid after injury.          | 30 | U01, U02, U03, U04, U05, U06, U08, U09, U10, U11, U12, U13, U14, U15, U16, U17<br>K01, K02, K03, K04, K05 |
|                          |   |    |   |
| <b>Summer semester</b>   |   |    |   |
| <b>Practical classes</b> |   |    |   |
| TK01                     | Treatment of patients. Examination of the child, assessment of hygiene indices, oral hygiene teaching, fluoride prophylaxis, preventive-treatment plan, caries risk assessment, prophylactic fissure sealing. Treatment of caries: filling the cavities. Shaping the child's dental attitude. Treatment of children's pulp diseases. First aid after injury.          | 30 | U01, U02, U03, U04, U05, U06, U08, U09, U10, U11, U12, U13, U14, U15, U16, U17<br>K01, K02, K03, K04, K05 |

| <b>Booklist</b>  |  |
|--|--|
| Obligatory literature:   |  |
| 1. Koch G., Poulsen S.: Pediatric dentistry – a clinical approach. Copenhagen: Blackwell Munksgaard; 2008. |  |
| 2. Cameron A.C., Widmer R.P.: Handbook of pediatric dentistry. Edinburgh: Mosby; 2012.                     |  |
| 3. <a href="http://www.dentaltraumaguide.org/">http://www.dentaltraumaguide.org/</a>                       |  |
| Supplementary literature:  |  |
| 1. Cohen S., Hargreaves K.M.: Pathways of the pulp. St. Louis: Mosby Elsevier, 2006 (chapter 8 and 22)     |  |



| <b>Student's workload</b>  |                        |
|--|------------------------|
| Form of student's activity<br>(in-class participation; activeness, produce a report, etc.) | Student's workload [h] |
|  | Tutor                  |
| Contact hours with the tutor   | 75                     |
| Time spent on preparation to seminars/ practical classess                                  | 45                     |
| Time spent on reading recommended literature   | 5                      |
| Time spent on writing report/making project  |                        |
| Time spent on preparing to colloquium/ entry test  | 25                     |
| Time spent on preparing to exam  |                        |
| Other .....  |                        |
| Student's workload in total  | 150                    |
| <b>ECTS credits for the subject (in total)</b>   | 5                      |
| <b>Remarks</b>   |                        |
|  |                        |

\* Selected examples of methods of assessment:

EP – written examination

EU – oral examination

ET – test examination

EPR – practical examination

K – colloquium

R – report

S – practical skills assessment

RZC – practical classes report, incl. discussion on results

O – student's active participation and attitude assessment

SL – lab report

SP – case study

PS - assessment of student's ability to work independently

W – entry test

PM – multimedial presentation

other...