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| --- |
| **Syllabus for academic year: 2020/2021****Training cycle: Major oriented** |
| **Description of the course** |
| **Module/Course** | **Restorative dentistry with endodontics** | **Group of detailed education results**  |
| **Group code F** | **Group name**VI - Clinical sciences |
| **Faculty** | Faculty of Dentistry |
| **Major**  | Dentistry |
| **Unit realizing the subject** | Conservative Dentistry with Endodontics Department, Medical University of Wroclaw |
| **Specialties** | **Restorative dentistry with endodontics** |
| **Level of studies** | Uniform magister studies **X** \*1st degree studies 2nd degree studies 3rd degree studies postgraduate studies  |
| **Form of studies** | **X** full-time part-time |
| **Year of studies**  | **V**  | **Semester** | **X** Winter**X** Summer |
| **Type of course** | **X** obligatory limited choice free choice / elective  |
| **Course** | **X** major basic |
| **Language of instruction** |  Polish **X** English other |
| \* mark with an **X** |
| **Number of hours** |
| Form of education |
| Unit teaching the course | Lectures (L) | Seminars (SE) | Auditorium classes (AC) | Major Classes – not clinical (MC) | Clinical Classes (CC) | Laboratory Classes (LC) | Classes in Simulated Conditions (CSC) | Practical Classes with Patient (PCP) | Specialist Classes – magister studies (SCM) | Foreign language Course (FLC) | Physical Education obligatory (PE) | Vocational Practice (VP) | Self-Study (Student's own work) | E-learning (EL) |
| **Winter Semester** |
| **Direct (contact) education** |  |  |  |  | **75** |  |  |  |  |  |  |  |  |  |
| **Online learning (synchronous)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Distance learning (asynchronous)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Summer Semester** |
| **Direct (contact) education** |  |  |  |  | **75** |  |  |  |  |  |  |  |  |  |
| **Online learning (synchronous)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Online learning (asynchronous)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **TOTAL per year:** |
| **Direct (contact) education** |  |  |  |  | **150** |  |  |  |  |  |  |  |  |  |
| **Online learning (synchronous)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Online learning (asynchronous)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Educational objectives** (max. 6 items)G1. To familiarize students with the basic and specialized knowledge in the diagnosis and treatment of oral cavity diseases in adults.G2.Preparing students to perform individual caries risk assessment, establishing the treatment plan and recommendations for the patient. G3. Preparing students to perform restorative treatment of carious and non-carious hard dental tissues lesions as well as endodontic treatment.G4. Familiarize students with the dental treatment implications in a patient with the systemic disease.G5. Preparing students for active participation in health promotion. |
| **Education result matrix for module/course in relation to verification methods of the intended education result and the type of class** |
| Number of course education result  | Number of major education result  | Student who completes the module/course knows/is able to | Methods of verification of intended education results (forming and summarising) | Form of didactic class*\*\*enter the abbreviation* |
|  **U01** | **F.U.1** | To gather medical and dental history from the patient or his family | Clinical assessment observation (F) | CK |
|  **U02** | **F.U.2** | To perform clinical examination and interpret the data  | Clinical assessment observation (F) | CK |
|  **U03** | **F.U.3** | To be able explain the patient`s ailments to set the optimal method of treatment confirmed by a conscious consent of a patient and give the prognosis of the treatment | Clinical assessment observation (F) | CK |
|  **U04** | **F.U.7** | To be able to set indications and contraindications for the given dental procedure  | Clinical assessment observation (F) | CK |
|  **U05** | **F.U.8** | To present the disease risk assessment and select the optimal methods of oral disease prevention  | Clinical assessment observation (F) | CK |
| **U06** | **F.U.18** | To perform treatment of dental caries , pulpal diseases and periapical diseases  | Clinical assessment observation (F) | CK |
|  **U07** | **F.U.13** | To use and perform the current documentation of the patient, referral for investigations or specialist for medical and dental treatment  | Clinical assessment observation (F) | CK |
| **K01** | **K01** | To cooperate in the group of professionals, in the environment multicultural and multinational  | Summarizing methods:- constant evaluation by teacher (surveying)Shaping methods:- observation of student’s work- discussion during classes- opinions of colleagues | CK |
| **K02** | **K02** | To be able to creates rules of the professional comradeship and the cooperation with representatives of other health care professionals  | Summarizing methods:- constant evaluation by teacher (surveying)Shaping methods:- observation of student’s work- discussion during classes- opinions of colleagues | CK |
| **K03** | **K03** | To be active in oral health promotion | Summarizing methods:- constant evaluation by teacher (surveying)Shaping methods:- observation of student’s work- discussion during classes- opinions of colleagues | CK |
| \*\* L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .  |
| Please mark on scale 1-5 how the above effects place your classes in the following categories: communication of knowledge, skills or forming attitudes:Knowledge: 5Skills: 5Social competences: 4 |
| **Student's amount of work (balance of ECTS points)** |
| **Student's workload** (class participation, activity, preparation, etc.) | **Student Workload (h)** |
|  | Winter | Summer |
| 1. Contact hours: | 75 | 75 |
| 2. Online learning hours (e-learning): |  |  |
| 3. Student's own work (self-study): | 45 | 40 |
| Total student's workload | 110 | 115 |
| **ECTS points for module/course** | 3,5 | 3,5 |
| Comments  |  |  |
| **Content of classes** (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects) |
| **Lectures** |
| **Seminars** |
| **Practical classes****Semester 9** Blocks of practical classes **1.CLASSES:**- attendance at 100% classes is mandatory; three late arrivals (up to 15 min) are treated as one absence; - It is allowed to make up only one class from the schedule in the semester with another group after obtaining a written consent of your assistant;- if classes or seminars will not take place due to an important reason (rector's hours or days, dean's days), the theoretical material **must be completed** on another agreed date.1. **THEORETICAL PART**

- obligatory lecture in the field of endodontics, which will be held online on 30.10. at 18:00.- at the beginning of each clinical class, there will be a 30 - minute written test in form of essay, so-called "Entry Test" from the topics listed in the table below ( **Tab. No1** ), (groups taking CAD / CAM classes also start the classes with an essay) - 15-20 -minute preparation test for the diploma and LDEK exam will be conducted from the topics listed in the table **No 2** according to the schedule presented in the same table.**Tab No 1**

|  |  |  |
| --- | --- | --- |
| **Week** | **Class** | **TOPICS OF „ENTRY TESTS“ at the beginning of classes** |
| **1** | **1** | Anatomy and morphology of pulp chambers and root canal systems - also possible other canal configurations. |
| **2** | Hand and machine instruments used in modern endodontic treatment: ultrasounds, canal finders, C-pilots.  |
| **3** |  Measurement of the working length of the canal in special clinical situations (curved canal, root resorption). |
| **4** |  Diagnostics and management of perforations |
| **5** |  Diagnosis and treatment of periapical tissue inflammation |
| **2** | **6** |  Materials used in endodontics  |
| **7** |  Rubberdam in endodontics |
| **8** |  Pain patient - management and "first aid"  |
| **9** |  Iatrogenic causes of early complications - treatment management |
| **10** |  Iatrogenic causes of late complications (e.g. periapical lesions) and thier treatment |

**Tab No 2.**

|  |  |  |
| --- | --- | --- |
| **No** | **DATE** | **STATIONARY CLASSES TOPICS WITH SCHEDULE OF TESTS**  |
| 1 | Each group at first class according the schedule |  **Repetition of the knowledge acquired in the III and IV year *(determining admission to clinical classes)*** (tooth morphology, reversible and irreversible pulpopathies, classification, diagnostics, treatment: stages, instruments, techniques, rinsing agents, materials, complications). |
|  2 |  | **RESTORATIVE MATERIALS USED IN THE CONSERVATIVE TREATMENT OF TEETH (crown reconstruction)**  |
|  3 |  | **TOOTH DEVELOPMENTAL ABNORMALITIES (etiology, classification, treatment)** |
|  | Each group at 3rd class according the schedule | **Test from the topics 2 and 3** |
|  4 |  | **NON-CARIOUS LESIONS OF HARD DENTAL TISSUES (etiology, classification, treatment)** |
|  5 |  | **DENTAL HYPERSENSITIVITY (etiology, classification, treatment)** |
|  | Each group at 5th class according the schedule | **Test from the topics 4 and 5** |
|  6 |  | **EPIDEMIOLOGY and PREVENTION OF CARIES, ETIOLOGY OF CARIES** |
|  7 |  | **PATHOLOGY OF CARIES, CLINICAL COURSE AND DIVISION** |
|  | Each group at 6th class according the schedule | **Test from the topics 6 and 7** |
|  8 |  | **DIAGNOSTICS OF CARIES -** qualitative and quantitative methods of caries detection, latest methods of detecting early caries lesions, decisions making regarding non-invasive and operative procedures, prognosis. |
|  | Each group at 7th class according the schedule | **Test from the topic 8** |
|  9 |  | **CARIES TREATMENT OPTIONS –** Blacks’s classification, Si/Sta, stages of cavity preparation,invasive and non-invasive methods of cavity preparation |
|  | Each group at 9th class according the schedule | **Test from the topic 9** |
|  10 |  | **CARIES TREATMENT OPTIONS** – aesthetic reconstruction of hard dental tissues in anterior teeth: silicon index, layering techniques, celluloid matrix; aesthetic reconstruction of hard dental tissues in posterior teeth: layering techniques, methods of polymerization, indirect techniques of cavity restoration |
|  | Each group at 10th class according the schedule | **Test from the topic 10** |

|  |  |
| --- | --- |
| **No** | **DIGITAL DENTISTRY TOPICS**  |
| **1** | In-office [CAD/CAM](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/CAD/CAM) [system](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/system), [procedure](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/work) [protocol](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/protocol), [scanner](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/scanner) [support](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/support), [intraoral](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/intraoral) scanning, [software](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/software), [indirect](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/indirect) [reconstruction](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/reconstruction) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [extensive](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/extensive) [cavities](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/cavities). Conservative dental treatment of the patients. |
| **2** | In-office [CAD/CAM](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/CAD/CAM) [system](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/system), [procedure](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/work) [protocol](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/protocol), [scanner](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/scanner) [support](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/support), [intraoral](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/intraoral) scanning, design, [milling](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/milling), [optimal](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/optimal) [preparation](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/preparation) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [tooth](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tooth) [tissues](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tissues), [preparation](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/preparation) [tools](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tools), [preparation](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/preparation) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [tooth](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tooth) [surface](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/surface) [and](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/and) [soft](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/soft) [tissues](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tissues) [for](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/for) [scanning](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/scanning). Conservative dental treatment of the patients. |
| **3** | In-office [CAD/CAM](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/CAD/CAM) [system](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/system), milling, c[eramics](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/Ceramics) [vs](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/vs). [composite](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/composite) ([comparison](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/comparison) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [mechanical](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/mechanical) [properties](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/properties), [advantages](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/advantages) [and](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/and) [disadvantages](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/disadvantages)), [technique](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/technique) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [joining](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/joining) [ceramics](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/ceramics) [and](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/and) [composite](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/composite) [with](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/with) [tooth](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tooth) [tissues](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tissues) ([step](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/step) [by](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/by) [step](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/step)), [optimal](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/optimal) [preparation](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/preparation) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [tooth](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tooth) [tissue](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tissue) [and](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/and) [restoration](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/restoration) [surface](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/surface), [reconstruction](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/reconstruction) [and](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/and) prevention [against](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/against) [fracture](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/fracture) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) endodontically [treated](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/treated) [teeth](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/teeth), [endocrown](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/endocoron) [vs](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/vs). [fiberglass](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/fiberglass). Conservative dental treatment of the patients. |

1. **PRACTICAL PART**

For the implementation of the classes ( endo part) it is necessary for each student to have:* phantom model used in the 2nd year,
* four-root canals endodontic block (manufacturer VDW, catalog number: V040246000500)

https://www.intertechdental.pl/images/com_hikashop/upload/csm_vdw-endo-uebungszahn-v040246_46d9ceac65.png**Variant A:**- students perform preventive and therapeutic treatments on adult patients in block classes according to the schedule- students work in pairs (operator / assistant), 2 patients during one class**Variant B - without a patient:** - In a situation where the student doesn’t have a patient in the class, is not an assistant or on duty, he/she is obliged to prepare a written and/or practical clinical case prepared by the assistant - based on the textbook and/or using the 2nd year phantom model or endodontic blocks**VARIANT B DOESN’T CONSTITUTE THE BASIS FOR COMPLETING THE CLASSES**. This is an alternative to the inability to perform clinical procedures on a patient. (excluding the need to conduct classes in the on-line system)**Semester 10****Practical classes****1.CLASSES:**- attendance at 100% classes is mandatory; three late arrivals (up to 15 min) are treated as one absence; - It is allowed to make up only one class from the schedule in the semester with another group after obtaining a written consent of your assistant.- if classes or seminars will not take place due to an important reason (rector's hours or days, dean's days), the theoretical material **must be completed** on another agreed date.1. **THEORETICAL PART**

- at the beginning of each clinical class, there will be a 30 - minute written test in form of essay, so-called "Entry Test" from the topics listed in the table below ( **Tab. No1** ), (groups taking CAD / CAM classes also start the classes with an essay) - 30 -minute preparation test for the diploma and LDEK exam will be conducted from the topics listed in the table **No 2** according to the schedule presented in the same table.**Tab. No1**

|  |  |  |
| --- | --- | --- |
| **Week** | **Class** | **TOPICS OF „ENTRY TESTS“ at the begining of classes** |
| **1** | **1** |  The Wand Computerized Anesthesia Delivery System – training course (techniques ). |
| **2** | Esthetic reconstruction in posterior teeth - clinical problems (i.e. contact point reconstruction) |
| **3** | Esthetic reconstruction in anterior teeth - restorations with the use of dental matrix, layering techniques, silicone indexes, dental materials.  |
| **4** |  Final preparation and finishing of dental restoration – instruments, polishing materials, discs and strips. |
| **5** | Clinical consequences of polymerization shrinkage – adhesive and cohesive defects, teeth deformations (enamel cracks, fractured cusps and its dislocations) |
| **2** | **6** | Minimally operative dentistry concept (MID). |
| **7** |  Secondary caries – restoration replacement vs repair. |
| **8** |  Composite and glass-ionomer materials.  |
| **9** |  Clinical tutorials/practical exam  |
| **10** | Clinical tutorials/practical exam  |

**Tab. No 2 TEST PORTAL SCHEDULE:**0nline tests of 5th year Conservative Dentistry with Endodontic Course.

|  |  |
| --- | --- |
| **Test No** | **Test topic** |
| 1. | 1.Morphology, structure, function of endodontium and periapical tissues. Therapeutic implications.2.Etiology and prevention of pulp and periapical tissues diseases.  |
| 2. | 1. Etiopathogenesis and pathomechanism of pulp diseases and apical periodontitis. 2.Diagnostic test used in the course of pulp diseases and periapical tissues deseases.3.Morphology of the teeth (pulp chambers and root canal system) in aspect of endodontic treatment. Classification of the root canal configurations |
| 3. | 1.Clinical diagnostics and symptomatology of pulp diseases – (etiology, patomechanism, classification - reversible and irreversible pulpopathies, signs, symptoms, differential diagnosis, diagnostic methods).2.Clinical diagnostics and symptomatology of periapical tissues diseases – (etiology, patomechanism, classification, signs, symptoms, differential diagnosis, diagnostic methods) |
| 4. | 1.Radiological diagnostics in endodontic therapy 2.Pain management in endodontic therapy (types and techniques of anesthesia |
| 5. | 1.Magnification of operating field, magnifying devices in endodontic treatment. 2.Endodontic instrumentation. |
| 6. | 1.Rubber-dam in endodontic treatment. 2.Working length measurement methods.  |
| 7. | 1.Chemo - mechanical preparation of root canals. 2.Mechanical methods of root canals preparation. 3.Methods and materials of root canals obturation. |
| 8. | 1.First aid in endodontics. 2.Endodontic therapy – biological aspect – direct and direct pulp capping - healing of the pulp, prognosis, complications(medicaments and materials used in endodontic treatment - odontropic agents [calcium hydroxide, MTA, Biodentine, adhesive systems], , treatment procedures). |
| 9. | 1.Complications in endodontic therapy. 2.Endodontic retreatment. |
| 10. | 1.Discolorations of dental tissues and teeth whitening. 2.Endodontic management of traumatic injury of permanent teeth. |
| 11. | 1.Dental structures reconstruction and strengthening of endodontically treated teeth. 2.Endo – perio: etiopathogenesis, clinical and radiological features, classification, diagnostic methods, therapeutic treatment, prognosis.  |
| 12. | 1.Pathological resorptions - ethiopathomechanism, clinical and radiologic features, therapeutic treatment, prognosis. 2.Endo-surgical treatment (apicoectomy, hemisection, root resection, bicuspidization, autoreplantation, menagment of abscesses – the choice of method, treatment strategies, prognosis).  |
| 13. | **RETAKE TEST** |

**DIGITAL DENTISTRY TOPICS**

|  |  |
| --- | --- |
| **No** | **Topic**  |
| **1** | In-office [CAD/CAM](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/CAD/CAM) [system](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/system), [procedure](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/work) [protocol](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/protocol), [scanner](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/scanner) [support](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/support), [intraoral](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/intraoral) scanning, [software](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/software), [indirect](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/indirect) [reconstruction](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/reconstruction) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [extensive](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/extensive) [cavities](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/cavities). Conservative dental treatment of the patients. |
| **2** | In-office [CAD/CAM](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/CAD/CAM) [system](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/system), [procedure](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/work) [protocol](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/protocol), [scanner](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/scanner) [support](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/support), [intraoral](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/intraoral) scanning, design, [milling](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/milling), [optimal](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/optimal) [preparation](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/preparation) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [tooth](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tooth) [tissues](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tissues), [preparation](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/preparation) [tools](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tools), [preparation](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/preparation) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [tooth](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tooth) [surface](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/surface) [and](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/and) [soft](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/soft) [tissues](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tissues) [for](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/for) [scanning](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/scanning). Conservative dental treatment of the patients. |
| **3** | In-office [CAD/CAM](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/CAD/CAM) [system](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/system), milling, c[eramics](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/Ceramics) [vs](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/vs). [composite](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/composite) ([comparison](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/comparison) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [mechanical](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/mechanical) [properties](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/properties), [advantages](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/advantages) [and](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/and) [disadvantages](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/disadvantages)), [technique](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/technique) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [joining](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/joining) [ceramics](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/ceramics) [and](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/and) [composite](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/composite) [with](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/with) [tooth](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tooth) [tissues](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tissues) ([step](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/step) [by](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/by) [step](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/step)), [optimal](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/optimal) [preparation](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/preparation) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) [tooth](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tooth) [tissue](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/tissue) [and](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/and) [restoration](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/restoration) [surface](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/surface), [reconstruction](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/reconstruction) [and](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/and) prevention [against](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/against) [fracture](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/fracture) [of](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/of) endodontically [treated](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/treated) [teeth](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/teeth), [endocrown](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/endocoron) [vs](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/vs). [fiberglass](https://pl.pons.com/t%C5%82umaczenie/angielski-polski/fiberglass). Conservative dental treatment of the patients. |

1. **PRACTICAL PART**

For the implementation of the classes (endo part) it is necessary for each student to have:* phantom model used in the 2nd year,
* four-root canals endodontic block

(manufacturer VDW, catalog number: V040246000500)**Variant A:**- students perform preventive and therapeutic treatments on adult patients in block classes according to the schedule- students work in pairs (operator / assistant), 2 patients during one class**Variant B - without a patient** - In a situation where the student doesn’t have a patient in the class, is not an assistant or on duty, he / she is obliged to prepare a written and/or practical clinical case prepared by the assistant - based on the textbook and/or using the 2nd year phantom model or endodontic blocks**VARIANT B DOESN’T CONSTITUTE THE BASIS FOR COMPLETING THE CLASSES**. This is an alternative to the inability to perform clinical procedures on a patient. (excluding the need to conduct classes in the on-line system)Students are obliged to keep notebooks from the first class, in which they should record the norms and patients admitted. In the event of any controversy or lack of confirmation of the entries obtained in the notebook, the doubts will be settled to the student’s disadvantage.During the last exercises (exercise no. 10), the standards obtained by the student will be verified (on the basis of the notebook kept by the student), which will be confirmed by the signature of the student and the teacher in the student card. |
| **Other** |
| **Basic literature** (list according to importance, no more than 3 items)1. Kidd E.A.M., Joyston-Bechal S.: *Essentials of dental caries*. 4rd ed. Oxford University Press, Oxford 20162. Banerjee A., Watson T.F.:*” Pickard’s Guide to Minimally Invasive Operative Dentistry”*, 10th ed. Oxford University Press, Oxford 20153. Heymann H., Swift E. and alt: *Sturdevant’s Art and Science of Operative Dentistry.* Elsevier 6th ed., 2013 **Additional literature and other materials** (no more than 3 items)1. Tronstadt L.: *Clinical endodontics: a textbook*. 3rd ed. Georg Thieme Verlag, Stuttgart 2009 2. Torabinejad M., Walton R.E., *Endodontics, principles and practic* , 5th edition, Saunders Elsevier 20093. Ingle J.I., Rostein I.: *Endodontics*, 7th ed. 2017 |
| **Didactic resources requirements** (e.g. laboratory, multimedia projector, other…)dental camera, multimedia projector, computer, local internet network, models |
| **Preliminary conditions** (minimum requirements to be met by the student before starting the module/course)Student is admitted to 5th year classes after successful completion of the final test summarizing knowledge of the subject from the 4th year, held at the end of the 8th semester. |
| **Conditions to receive credit for the course** (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be med by the student to pass it and criteria for specific grades)**CONDITIONS FOR OBTAINING CREDIT OF THE SEMESTERS:****a**. obtaining positive grades from tests in the winter and summer semester**b**. obtaining positive grades from all "entry tests" in the winter and summer semester (their possible improvement or re-take will take place orally with the group assistant online on the BBB platform, after completing the clinical classes block)**c.** performing obligatory practical procedures on patients in both, winter and summer semester: - dental examination and filling in the examination card as well as hygienic and dietary instruction for each new patient -3x- preparation and restoration of 15 cavities- caries risk assessment on a patient - 3x- 6 endodontically treated canals in teeth and blocks - including rotary preparation and warm gutta-percha obturation  **(the basis for obtaining a credit are classes taking place only in variant A or mixed: variant A and supplementally variant B)****d.** participation in a mandatory online lecture in the field of endodontics**e**. positive completion of the final test, which will take place after the summer semester on the date agreed with the head of the year and will consist of 50 questions on the subject of classes in cariology and endodontics**THE FINAL EXAM:** The final exam consists of two parts - practical and theoretical (test of 100 multiple-choice questions). Both parts of the exam are treated equally, i.e. to pass the exam it is required to receive at least a satisfactory grade ( 3,0 ) in each part of the exam, and admission to the second part of the exam (test) is conditional on passing the first part (practical).**1. Practical –** clinical interview, clinical examination, diagnosis, treatment planning, preventive recommendations, performing the clinical procedure.**2. Theoretical –** test consist of 100 questions. Conditions for passing: 60 % of correct answers.The 2nd and 3rd exam will be held during the retake session (in September) – the examiner will decide on the form of the exam. Rules of converting % points into grades:

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| --- | --- | --- | --- | --- | --- |
| **FINAL GRADE** | **Satisfactory** 60% - 70% points | **Satisfactory Plus** 71% - 80% points | **Good** 81% - 90% points | **Good Plus** 91% - 95% points | **Very Good** 96% - 100% points |

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| **Grade:** | **Criteria** (only for courses/modules ending with an examination) |
| Very Good(5.0) | achievement of learning outcomes covering all relevant aspects |
| Good Plus (4.5) | achievement of learning outcomes covering all relevant aspects with some errors or inaccuracies |
| Good(4.0) | achievement of intended learning outcomes, with omitting some of the less important aspects |
| Satisfactory Plus (3.5) | achievement of intended learning outcomes, with omitting some important aspects or significant inaccuracies |
| Satisfactory (3.0) | achievement of intended learning outcomes, with omitting some important aspects or serious inaccuracies |
|  | **Criteria** (only for courses/modules ending with e credit) |
| Credit |  |
|  |  |
| **Grade:** | **Criteria** (examination evaluation criteria) |
| Very Good(5.0) | achievement of learning outcomes covering all relevant aspects |
| Good Plus (4.5) | achievement of learning outcomes covering all relevant aspects with some errors or inaccuracies |
| Good(4.0) | achievement of intended learning outcomes, with omitting some of the less important aspects |
| Satisfactory Plus (3.5) | achievement of intended learning outcomes, with omitting some important aspects or significant inaccuracies |
| Satisfactory (3.0) | achievement of intended learning outcomes, with omitting some important aspects or serious inaccuracies |
| **Unit realizing the subject** | Dept. Of Conservative Dentistry with Endodontics, Medical University of Wroclaw |
| **Unit address** | ul. Krakowska 26, 50-425 Wrocław |
| **Telephone** | Tel.: (71) 784 0361, fax (71)784 03621  |
| **E-Mail** | stomzach@umed.wroc.pl |
|  |  |
| **Person responsible for module** | Prof Katarzyna Skośkiewicz-Malinowska, DDS,PhD  |
| **Coordinator** | Prof Katarzyna Skośkiewicz-Malinowska, DDS,PhD |
| **Telephone** | Tel.: (71) 784 0361  |
| **E-Mail** | katarzyna.skoskiewicz-malinowska@umed.wroc.pl |
|  |  |
| **List of persons conducting specific classes** |
| **Full name** | **Degree/scientific or professional title** | **Discipline** | **Performed profession** | **Form of classes** |
| Urszula Kaczmarek | Prof., DDS, PhD | Dentistry | dentist  | lectures, seminars |
| Joanna Kobierska-Brzoza | DDS, PhD | Dentistry | dentist  | classes |
| Kowalczyk-Zając Małgorzata | DDS, PhD | Dentistry | dentist  | classes |
| Dagmara Piesiak-Pańczyszyn | DDS | Dentistry | dentist  | classes |
| Agnieszka Czajczyńska-Waszkiewicz | DDS | Dentistry | dentist  | classes |
| Natalia Jawor-Moczulska | DDS | Dentistry | dentist  | classes |
| Marta Berdzik-Janecka | DDS | Dentistry | dentist  | classes |
| Martina Gutbier | DDS | Dentistry | dentist  | classes |
| Wojciech Grzebieluch | DDS, PhD | Dentistry | dentist  | digital dentistry classes |
| Tomasz Staniowski | DDS, PhD | Dentistry | dentist  | classes |
| Marcin Zakrzewski  | DDS | Dentistry | dentist  | digital dentistry classes |
|  |  |
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| --- | --- |
| **Date of Syllabus development**  | **Syllabus developed by**  |
| 1.02.2020. | Agnieszka Czajczyńska-Waszkiewicz, DDS,PhD |
| **Signature of Head of teaching unit** |
| Prof. Katarzyna Skośkiewicz-Malinowska, DDS,PhD |

**Signature of Faculty Dean**  |
| ……………....………………………… |
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