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**TBILISI HUMANITARIAN TEACHING UNIVERSITY**

***SILLABUS***

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| ***Name of educational course*** | Children and adults’ endodontics |
| ***Code of educational course*** | STOM0428DM |
| ***Status of educational course*** | **C**ompulsory course  for the one-cycle higher educational Programme-Dentistry |
| ***ECTS*** | **3 credits. Total: 75 hours**  Contact Hours–40 hours (Class Meeting Time Period: 13L/23 Pr) + 4 hours (Midterm:2h and Final Examinations 2h):  Individual Work-35 hours |
| ***Lecturer*** | Nino Gvasalia, THTU invited lecturer,  55777895,  [nino.gvasalia@gmail.com](mailto:nino.gvasalia@gmail.com)  Consultation days: according to consultation schedule |
| ***Goal of educational course*** | The goal of the course is to teach the students deceases of pulp and periodontal tissues; it's treatment, disinfection, mechanical instrumentation and opturation, that is applied in endodontic practice.  The course aimed to mastering the student on the various skills that are: Evaluate and discuss Disordered Structure, Function and Behavior of the human in response to internal and external factors; Interpret pathological and clinical features of disease and apply to dental practice; Provide effective and safe patient assessment and management; Demonstrate a working knowledge of the socio-cultural context of health care; Apply appropriate diagnostic processes. |
| ***Precondition for admission*** | Phantom Endodontics |
| ***System of students’ assessment*** | ***The assessment system at the Tbilisi Humanitarian Teaching University is divided into the following components:*** *Out of the total score (100 points) the intermediate assessment makes totally 60 points that are distributed as follows:* ***A student’s activity during the educational semester*** *-30 points;* ***Intermediate exam*** *- 30 points;* ***and the final exam*** *- 40 points. The limit of minimum competence in the component of intermediate assessments totals at least* ***18 points.*** *The limit of minimum competence of the final assessment is* ***50%*** *of the total sum of the final assessment, i.e.****20 points out of 40 points.***  ***The assessment system allows:******A) Five types of positive assessment:*** *a.a)* ***(A) Excellent*** *- 91-100 points of the assessment;*  *a.b)* ***(B) Very good*** *- 81-90 points from maximum marks;*  *a.c)* ***(C) Good*** *- 71-80 points from maximum marks;*  *a.d)* ***(D) Satisfactory*** *- 61-70 points from maximum marks;*  *a.e)* ***(E) Sufficient*** *- 51-60 points from maximum marks.*  ***B) Two types of negative assessment:***  ***b.a) (FX) Did not pass*** *- 41-50 points from maximum marks, which means that a student needs harder work to pass and is granted one additional attempt with independent work;*  ***b.b) (F) Fail-*** *40 points and less from maximum marks, which means the performance a student is not sufficient and he/she has to learn the subject from the beginning.*  *1. In case of one of the negative assessments: (FX) Did not pass, the Teaching University shall appoint an additional exam within at least 5 days after the final exam results are announced and reflected in the exam table. 2. The assessmentreceivedat the additional exam is the student's final assessment, which does not reflect the negative points received at the basicfinal exam. If the student receives atthe additional exam from 0 to 50 points, (F) -0 score will be recorded in the student’s final examination record list.* |
| ***Content of educationla course*** | *See Appendix 1* |
| ***Assessment forms/methods/***  ***criteria/activities*** | ***Activity - 30 points*** *It is to be assessedby the current* ***oral interview*** *10times during curation, the maximum score is 2 points, (****20 points in total****). Assessment criteria:*  *2 points: The Student demonstrates comprehensive, convincing and detailed knowledge of the material, freely uses the specific terminology, actively fulfills the assigned tasks; uses the information from the learned material, and is interactive.*  *1.5 points: The Student demonstrates significant knowledge of the material, knows the specific terminology, fulfills the assigned tasks; uses the information from the learned material, and is interactive.*  *1 point: The Student’s knowledge of the material is not sufficient, demonstrates only schematic knowledge, does not know the specific terminology sufficiently, has difficulties in fulfillment of tasks.*  *0 points: The student is passive, has not reviewed the material.*  ***Presentation - Assessed by 5 points, assessmentcriteria:******A) Contents of the presentation, use of sources - 2 points*** *The presentation provides full data, a large number of different sources are used, the topic is fully covered -****2 points;*** *The data is limited, the conclusions are not made, the less sources are used -****1 point;***  *There is no sources used at all, the contents are not correctly provided -****0 point.******B) Presentation design (layout) -1 point*** *All the pointsof layout are observed, the presentation background is well perceivable, the slides are relevant to the presentation topic, various means of imaging are used in slide design: animations, pictures, and otherobjects -****1 point;***  *No title layout is provided, none of the points is correctly specified, noslides and other means of designingare used -****0 point.******C) Presentation technology / contact with the audience - 2 points*** *The contact with the audience is established and is effective, speech is correct, good and interesting, the audience reaction is adequate -****2 points;*** *The contact with the audience is weak, sometimes uninteresting, no problems are arisen, the audience is experiencing difficulty in the process of perception of the presenter and presentation -****1 point;*** *The contact between the presenter and the audience is lost, the audience cannot perceive the presentation -****0 point.******The practical training is conducted 5 times in the semester - Maximum assessment - 1 points (Total 5 points)*** *1 points - The student analyzes the principles of treatment and has ability to fulfill practical skills well. 0.5 points –The student analyzes the principles of treatment and has not ability to fulfill practical skills well. 0 points - The student can't analyze the principles of treatment and has not ability to fulfill practical skills.*  ***Intermediate Exam assessment- in combined form, maximum 30 points*** *A) Writing (Test) -* ***20*** *points. The tests consists of 20 multiple choice questionsreflecting the previous material and each correct answer in the test is assessed by 1 point, theincorrect answer - 0 point.  B) Open questions -2. With 5 points will evaluate each open question. Totally 10 points. Criteria of evaluation of theoretical issue at midterm exam are the following:*  *5 points – Answer is complete. It is presented in precise and exhaustive manner. The student has profoundly acquired the past material and has deep and profound knowledge of basic as well as supplementary literature. No mistakes are made. Student provides top-level reasoning.*  *4 points – the answer is complete, however compressed. No essential mistakes are made. The student has good knowledge of past material envisaged under the program. He/she has acquired basic literature. Reasoning is made well.*  *3 points- Answer is incomplete. The student has acquired material envisaged under the program however shortcomings are evident. Reasoning is fragmented.*  *2 points – The answer is incomplete. Material relevant to the issue is provided partially. Student has insufficiently acquired basic literature. Several essential mistakes are made.*  *1 point- The answer is deficient. The answer is essentially wrong. Only certain fragments of material relevant to the issue are presented.*  *0 point – The answer is irrelevant to the issue or is not presented at all.*  ***Final exam:*** *40 points         A) Writing (Test) -* ***20*** *points. The tests consists of 20 multiple choice questions reflecting the previous material and each correct answer in the test is assessed by 1 point, the incorrect answer - 0 point. B) Open questions -4. With 5 points will evaluate each open question. Totally 20 points. Criteria of evaluation of theoretical issue at midterm exam are the following:*  *5 points – Answer is complete. It is presented in precise and exhaustive manner. The student has profoundly acquired the past material and has deep and profound knowledge of basic as well as supplementary literature. No mistakes are made. Student provides top-level reasoning.*  *4 points – the answer is complete, however compressed. No essential mistakes are made. The student has good knowledge of past material envisaged under the program. He/she has acquired basic literature. Reasoning is made well.*  *3 points- Answer is incomplete. The student has acquired material envisaged under the program however shortcomings are evident. Reasoning is fragmented.*  *2 points – The answer is incomplete. Material relevant to the issue is provided partially. Student has insufficiently acquired basic literature. Several essential mistakes are made.*  *1 point- The answer is deficient. The answer is essentially wrong. Only certain fragments of material relevant to the issue are presented.*  *0 point – The answer is irrelevant to the issue or is not presented at all.* |
| ***Mandatory literature*** | 1. Anna B. Fuks • Benjamin Peretz. Pediatric EndodonticsCurrent Concepts in Pulp Therapy for Primary and Young Permanent,2016 2. KMK MasthanTextbook of Pediatric Oral Pathology 2011 3. Jane A. Soxman. Handbook of Clinical Techniques in Pediatric Dentistry. 2015 4. Rajendran and sivapathasundharam,Shafer’s Textbook of Oral Pathology ., 7 Edition, 2012 |
| ***Additional***  ***literature*** | 1. DANYLO HALYTSKYI LVIV NATIONAL MEDICAL UNIVERSITYPEDIATRIC DENTISTRY DEPARTMENT. Methodical GuidesonPediatric Dentistry for the 4th -year students of dental faculty.2012 2. Badrinatheswar GV. PedodonticsPractice and Management 2010 |
| ***Study results. Field competences*** | **Skills**   1. Student makes a diagnosis by establish contact with children patients and applies differential diagnostics 2. Student prescribes appropriate treatment plan by taking into account the clinical progress of a pulpitis and periodontitis, 3. Student selects correct endodontic treatment: 4. Student selects correct endodontic instruments for mechanical and chemical preparation of root canals 5. Student selects appropriate filling materials considering the process of root resorption and apexogenesis.   **Responsibilities**   1. Student, Objectively and critically evaluates personal knowledge |
| ***Teaching methods and forms*** | *Lecture Practical training Discussion / debates Demonstration of practical skills*  *Independent work of a student and making a presentation* |

***Appendix 1***

***Content of educational course***

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| ***days*** | ***Teaching method*** | ***Number of hours*** | ***Topic of practical or laboratory training of Lecture/work in the working group*** | ***Literature*** |
| ***I*** | ***Lecture*** | *2* | **Pulpitis. Morphology of pulp tissues, its peculiarities in children. Odontogenic inflammatory processes**   1. Anna B. Fuks • Benjamin Peretz. Pediatric Endodontics   Current Concepts in Pulp Therapy for Primary and Young Permanent Teeth. 2016  **Pp 8-21** |  |
| ***Practical training\seminar*** | *1* | *Syllabus presentation* |  |
| ***II*** | ***Lecture*** | *1* | Classification of pulpitis. **Pulpitis, etiology, pathogenesis. Peculiarity of progress of pulpitis in children.**  KMK MasthanTextbook of Pediatric Oral Pathology 2011.**Pp 13-14** |  |
| ***Practical training\seminar*** | *2* | * Pulp histology * Pulp cells, * ground substance of pulp, * pulp blood supply, * pulp innervations, * function of pulp tissues and dystrophic changes. |  |
| ***III*** | ***Lecture*** | *1* | **Acute pulpitis of primary teeth**   1. KMK MasthanTextbook of Pediatric Oral Pathology 2011.**Pp.14-16** |  |
| ***Practical training\seminar*** | *2* | * *Classification of pulpitis* * *Etiology of pulpitis* * *Histopathology of pulpitis* |  |
| ***IV*** | ***Lecture*** | *1* | Chronic pulpitis of primary and permanent teeth.  KMK MasthanTextbook of Pediatric Oral Pathology 2011**pp. 16-18** | *1/2/3* |
| ***Practical training\seminar*** | *2* | Consideration of the peculiarities of clinical progress of acute pulpitis in primary dentition |  |
| ***V*** | ***Lecture*** | *1* | **Treatment of acute and chronic pulpitis**   1. Anna B. Fuks • Benjamin Peretz. Pediatric Endodontics   Current Concepts in Pulp Therapy for Primary and Young Permanent Teeth 2016  **Pp 37-48, 51-68, 71-97, 117-129**   1. Jane A. Soxman. Handbook of Clinical Techniques in Pediatric Dentistry. 2015 **Pp 51-68, 83-98** |  |
| ***Practical training\seminar*** | *2* | Consideration of peculiarities of progress of acute pulpitis in primary dentition |  |
| ***VI*** | ***Lecture*** | *1* | **Anatomic and physiological peculiarities of periodontitisclassification of periodontitis of primary teeth**   1. KMK MasthanTextbook of Pediatric Oral Pathology 2011 **Pp. 18-24** 2. Rajendran and sivapathasundharam,Shafer’s Textbook of Oral Pathology ., 7 Edition, 2012 **Pp. 482-492**   Mahmoud Torabinejad,Richard E. Walton,Ashraf F. Fouad, Endodontics principles and practice , fifth edition , 2015.**pp. 17-20** |  |
| ***Practical training\seminar*** | *2* | * Treatment of **pulpitis** by pulp capping method, * vital pulpotomy, * vital pulpectomy, * devitalpulpotomy and pulpectomy. * Incomplete collection of anamnesis, * incorrect assessment of pulp inflammation, * ignorance of painful symptoms, * violation of preparation and treatment stages. |  |
| ***VII*** | ***Lecture*** | *1* | **Periodontitits. Acute and chronic periodontitis of primary and permanent teeth**   1. Rajendran and sivapathasundharam, Shafer’s Textbook of Oral Pathology ., 7 Edition, 2012 **Pp. 482-492** 2. DANYLO HALYTSKYI LVIV NATIONAL MEDICAL UNIVERSITYPEDIATRIC DENTISTRY DEPARTMENT. Methodical Guideson Pediatric Dentistry for the 4th -year students of dental faculty.2012 **pp. 1-5** |  |
|  | ***Practical training\seminar*** | *2* | Consideration of causes of apical periodontitis development in primary and permanent tooth. |  |
| ***VIII*** |  | *2* | *Intermediate exam* |  |
| ***IX*** | ***Lecture*** | *1* | **Exacerbated chronic periodontitis of primary and permanent teeth**   1. MK MasthanTextbook of Pediatric Oral Pathology 2011 **Pp. 18-24** 2. Rajendran and sivapathasundharam, Shafer’s Textbook of Oral Pathology 7 Edition, 2012 **Pp. 482-492** |  |
| ***Practical training\seminar*** | *2* | * Clinical picture, * diagnostics, * differential diagnostics of acute and chronic apical periodontitis in primary teeth |  |
| ***X*** | ***Lecture*** | *1* | **Peculiarities of treatment of acute and chronic apical periodontitisin primary teeth**   1. Anna B. Fuks • Benjamin Peretz. Pediatric Endodontics   Current Concepts in Pulp Therapy for Primary and Young Permanent Teeth 2016  **Pp. 129-144** |  |
| ***Practical training\seminar*** | *2* | Differential diagnostics of acute, chronic and chronic exacerbated apical periodontitis in primary and permanent teeth |  |
| ***XI*** | ***Lecture*** | *1* | **Filling material used in the course of treatment of pulpitis and** apical periodontitis   1. Jane A. Soxman. Handbook of Clinical Techniques in Pediatric Dentistry. 2015 **Pp.13-50** 2. Badrinatheswar GV. PedodonticsPractice and Management 2010 **Pp.196-210** | *1/2/3* |
| ***Practical training\seminar*** | *2* | * treatment of acute apical periodontitis in primary teeth on causes of inflammation, * degree of Progression and clinical manifestation and general condition of a child |  |
| ***XII*** | ***Lecture*** | *1* | **Mistakes and complications in the course of diagnostics and treatment of** apical periodontitis | *1/2/3* |
|  | ***Practical training\seminar*** | *2* | Root canal filling materials, peculiarities of their application. Temporary and permanent fillings, peculiarities of their application. |  |
| ***XIII*** | ***Lecture*** | *1* | *Summery* |  |
|  | ***Practical training\seminar*** | *2* | *Presentation* |  |
| ***XIV-XV*** |  | *2* | ***Final Exam*** |  |
|  |  |  | ***Additional exam*** |  |