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**TBILISI HUMANITARIAN TEACHING UNIVERSITY**

***SILLABUS***

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| ***Name of educational course*** | Orthodontics dentistry (Alveolar arches deformations and treatment) |
| ***Code of educational course*** | STOM0435DM |
| ***Status of educational course*** | **C**ompulsory coursefor the one-cycle higher educational Programme-Dentistry |
| ***ECTS*** | **4 credits. Total: 100 hours**Contact Hours–43 hours (Class Meeting Time Period: 14L/25 Pr) + 4 hours (Midterm:2h and Final Examinations 2h):Individual Work-57 hours |
| ***Lecturer***  | Jaba Adamia- THTU associate professorconsultation days: according to consultation schedule |
| ***Goal of educational course*** | The goal of the course is to teach the studentsfunction and mechanical action of fixed appliances. Treatment with combined appliances. Treatment with retention appliances and affection of orthodontic appliances on periodontal tissue. |
| ***Precondition for admission***  | Orthodontics dentistry (Alveolar arches deformations); Orthodontics dentistry (Patient survey and teeth anomalies) |
| ***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 assessed by the current **oral interview** 8 times during curation, the maximum score is 2 points, (**16 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, assessment criteria:****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 points of 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 other objects -**1 point;**No title layout is provided, none of the points is correctly specified, no slides and other means of designing are 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.** **Practical training is conducted Five times in the semester - Maximum assessment – 1 points (Total 5 points)**1 points - The student analyzes principles of treatment and has ability to fulfill practical skills well0.5 points – The student analyzes principles of treatment and hasn’t ability to fulfill practical skills well 0 points - The student cannot analyzes principles of treatment and hasn’t ability to fulfill practical skills Writing quiz will be held on fifth week and will be assessed by 4 points (2 open questions will be assessed by 2 points)2 points- Answer is complete. 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. 1.5 points-the answer is complete. No essential mistakes are made. The student has good knowledge of past material envisaged under the program. He/she has acquired basic literature. 1 point- The answer is incomplete. Material relevant to the issue is provided partially. Student has insufficiently acquired basic literature. Several essential mistakes are made.0 point-The answer is irrelevant to the issue or is not presented at all. **Intermediate exam evaluation - in combined form, maximum 30 points**A) Writing (Test) – **20** points. The test consists of 20 multiple choise questions reflecting the previous material and each correct answer in the test is assessed by 1 point, the incorrect answer - 0 point.B) open question (two )-10. Each open question will be evaluated by 5 points * **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 pointsA) Is conducted in written form (tested) – 30 tests are given to the student, reflecting the learnt material, one question is assessed by one point, maximum 20 points.B) Open question (two )-10. Each open question will be evaluated by 5 points * **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
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| ***Mandatory literature*** | Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013 |
| ***Additional******literature***  | Orthodontic therapy: fundamental treatment concepts I Andrea Wichelhaus; with the assistance o f Tena Eichenberg. 2018 by Georg Thieme Verlag KG |
| ***Study results. Field competences*** | **Skills**1. Student applies the general principles of treatment of deficiencies of development of teeth, anomalies and deformations of dental arches, jaws and occlusion.
2. Student defines function and mechanical action of fixed appliances.
3. Student makes a treatment plan by using the approaches of treatment with combined appliances and treatment with retention appliances
4. Student evaluates affection of orthodontic appliances on periodontal tissue, correction of form and size of jawbones in case of unsuccessful treatment with appliances.

**Responsibilities**1. Student identifies appropriate learning resources for future learning.
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| ***Teaching methods and forms*** | LecturePractical trainingReview of clinical casesDiscussion / debatesDemonstration of practical skills |

***Appendix 1***

***Content of educational course***

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| ***Day***  | ***Teaching method*** | ***Number of hours*** | ***Topic of practical or laboratory training of Lecture/work in the working group*** | ***Literature*** |
| ***I***  | ***Lecture*** | *2* | **General principles of treatment of deficiencies of development of teeth, anomalies and deformations of dental arches, jaws and occlusion** Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013 **pp.278-295** |  |
| ***Practical training\seminar*** | *1* | *Syllabus presentation* |  |
| ***II***  | ***Lecture*** | *1* | **General principles of treatment of deficiencies of development of teeth, anomalies and deformations of dental arches, jaws and occlusion** Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013**pp.266-278** |  |
| ***Practical training\seminar*** | *2* | **Issues to be considered**:Methods of treatment with appliances, preventive orthodontic appliances, classification of appliances used in orthodontics |  |
| ***III***  | ***Lecture*** | *1* | Treatment methods applied with orthodontic appliances Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013**pp. 295-304** |  |
| ***Practical training\seminar*** | *2* | **Issues to be considered**:Curing exercises, mechanisms of application. |  |
| ***IV***  | ***Lecture*** | *1* | Fixed appliances of mechanical action.Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013**pp.347-357** |  |
| ***Practical training\seminar*** | *2* | * Classifiction of curing appliances.
* Mechanical, fucntional and combined action of orthodontic appliances
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| ***V***  | ***Lecture*** | *1* | **Functional action or fixed appliances**Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013 **pp.357-395** |  |
| ***Practical training\seminar*** | *2* | * Ainsworth orthodontic appliance,
* Simon orthodontic appliance,
* Lourie orthodontic appliance
* screwed appliances for quick expansion of upper jaw
* fixed appliances for elimination of diastema
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| ***VI***  | ***Lecture*** | *1* | **Orthodontic treatment with Combined appliances**Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013 **pp.324-328** |  |
| ***Practical training\seminar*** | *2* | * Biting Katz’ platform
* Kurlanski orthodontic appliance
* Schwarz' gum shield.
* lip pusher
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| ***VII***  | ***Lecture*** | *1* | **Orthodontic treatment with extraoral appliances**Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013**pp.328-336** |  |
|  | ***Practical training\seminar*** | *2**1* | * Brukly’s appliance, activators and regulators of function
* Andresen monoblock,
* Herbst appliance
* Frenkel functional regulator
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| ***VIII***  |  | *2* | *Intermediate exam*  |  |
| ***IX***  | ***Lecture*** | *1* | **Orthodontic treatment with retention appliances**Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013 **pp.611-615** |  |
| ***Practical training\seminar*** | *2**1* | * Deller appliance in case of treatment of upper micrognathia
* Chin cup, external arch of face in case of treatment of upper prognathism
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| ***X***  | ***Lecture*** | *1* | *Othodontic treatment affection on periodontal tissue*Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013 **pp.278-281** |  |
| ***Practical training\seminar*** | *2* | * *Function of* Fixed and removable retention appliances
* *Mechanism of* Fixed and removable retention appliances
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| ***XI***  | ***Lecture*** | *1* | **Orthodontic treatment and mistakes.**Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013 **pp.395-403** |  |
| ***Practical training\seminar*** | *2* | * *Morphological changes developing on face*
* *Morphological changes developing on periodontium*
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| ***XII***  | ***Lecture*** | *1* | ***Surgical treatment of jaw, bone and teeth anomalies***Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013 **pp.695-709** |  |
|  |  ***Practical training\seminar*** | *2* | Mistakes and complications during treatment with appliances. |  |
| ***XIII***  | ***Lecture*** | *1* | Materials and biomechanics applied in orthodontics Contemporary Orthodontics. William R. Proffit, Dds, Phd. 2013**pp. 459-472** |  |
|  | ***Practical training\seminar*** | *2* | * Extraction of teeth
* Correction of form and size of jaw bones in case of unsuccessful treatment with appliances.
* Preparation of alveolar part of jaws
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| ***XIV***  | ***Lecture*** | *1* | *Summery* |  |
|  | ***Practical training\seminar*** | *2* | *Presentation* |  |
| ***XV-XVI*** |  | *2* | ***Final Exam*** |  |
|  |  |  | ***Additional exam*** |  |