**BSc Dental technician**

**Course Syllabi**

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| **Course** | **Orthodontic Appliances 2** | | | |
| Type | Semester | ECTS | Code |
| OBLIGATORY (O) | 4 | 6 | 21 |
| **Course Lecturer** | Prof. Asst. Dr. Miranda Sejdiu Abazi | | | |
| **Course Assistant** | Dr. Spec. Vesel Rrustemaj | | | |
| **Aims and Objectives** | The aim of this course is to enable students to recognize and construct esthetic and functional orthodontic appliances for clinical cases. Students will also learn about the clinical and laboratory stages of constructing an orthodontic appliance, which is an essential skill for any aspiring dental technician. | | | |
| **Learning outcomes** | **Upon successful completion of this course students should be able to:**   * **1.** Understand and use specialty terminology in practice report; * **2.** Consider the principles of esthetics, function, and occlusion in producing an orthodontic appliance; * **2.1** Know and recognize the requirements set for the framework of orthodontic appliances; * **2.2** Select and use materials, apparatuses and work instruments according to the work’s nature by observing instructions, requirements for safety measures and environment saving; * **3.** Describe and evaluate the work process and the done work, and to analyze the technological, instructing related and organizational causes of successful and unsuccessful works; * **3.1** Campare in practical training report the justification for selecting the dental restorations, technologies, work organization, resources, etc. in different practical training location. | | | |
| **Alignment of Course’s Learning Outcomes to Programs’ Learning Outcomes.** | 1. **Application of terminology in practice**     * BSc Program (Outcome 1, 2, 5): Students will learn to maintain ethical and integrity in dental laboratory practices. By adhering to ethical standards, dental laboratories can build trust with dental professionists and contribute to the overall success of the dental industry.    * Applying theory to practice is essential for success in creating orthodontic appliances.    * Students must master the art of communication, which is crucial when it comes to collaborating with dentists. 2. **Evaluation of requirements in producing orthodontic appliances**:    * BSc Program (Outcome 3, 6): Laboratory sessions provides hands-on experience. Student should be able to execute dental lab procedures with autonomy and precision, creating comfortable and functional orthodontic appliances.    * Staying up to date on the advancements in dental materials, allows dental technician to offer exceptional products which lead to better treatments. 3. **Practical Skill Development**:    * BSc Program (Outcome 8, 10, 11, 14): Includes emerging technologies courses and workshops in the field of orthodontics.    * Practical sessions are an indispensable part of the journey to becoming skilled dental technician appliance producer.    * Practical sessions ensures repair procedures with highly confidence.    * Students should be able to manage efficiently dental laboratories operations, which includes workflow and allocating resources. | | | |
| **Course Content** | **Course Plan** | | | **Week** |
| Orthodontic biomechanics | | | 1 |
| Preventive orthodontics | | | 2 |
| Interceptive orthodontics | | | 3 |
| Orthodontic treatment of the primary dentition | | | 4 |
| Orthodontic treatment for adults | | | 5 |
| Orthodontic appliances and treatment  methods | | | 6 |
| Seminars, quizzes, recapitulation of course | | | 7 |
| Orthodontic treatment with removable appliances | | | 8 |
| Orthodontic plate | | | 9 |
| Functional orthodontic appliances- Activators and Bionators | | | 10 |
| Frankel appliance | | | 11 |
| Repair and modification of orthodontic appliances | | | 12 |
| Clear aligners  Sport mouthguards | | | 13 |
| Presentation of seminars | | | 14 |
| Final assessment | | | 15 |
|  | **Laboratory practices** | | | **Week** |
|  | The use of Digital Technique in Orthodontics, splints making, creation and scanning of model analysis | | | 1 |
|  | Basic wire – bending technique | | | 2 |
|  | Creation of orthodontics mobile appliances and Activators; their parts: screws, springs, individual elements for retention and functional elements | | | 3 |
|  | Acrylate polimerisation in pressure vessel, and acrylate processing | | | 4 |
|  | Preventive orthodontics | | | 5 |
|  | Interceptive orthodontics | | | 6 |
|  | Quizzes | | | 7 |
|  | Orthodontic tooth movements and biomechanics | | | 8 |
|  | Orthodontic treatment of the primary dentition | | | 9 |
|  | Orthodontic Appliances and treatment methods | | | 10 |
|  | Orthodontic treatment with removable Appliances | | | 11 |
|  | Clear Aligners Technique | | | 12 |
|  | Functional orthodontic Appliance- Activators and Bionators | | | 13 |
|  | Frankel appliance | | | 14 |
|  | Practical exam | | | 15 |
|  | **Teaching/Learning Activity – Weights (%)** | | | |
| **1. Lectures: 20%**   * + Purpose: To introduce key concepts, models, and theories in knowledge in Orthodontics.   + Implementation: Weekly lectures | | | |
| **2. Lab skills ( Hands on ) 35%**   * + Purpose: To apply theoretical knowledge to practical, in producing orthodontic appliances.   + Implementation: Weekly laboratory sessions, to apply theory in practice which is crucial step in turning knowledge into skills | | | |
| **3. Group Discussions and Seminars: 10%**   * + Purpose: Discussions are e great way to exchange ideas and gain insight into different perspectives   + Implementation: Anticipated sessions for presentation of their work. | | | |
| **4. Project Work**: **10%**   * + Purpose: Collaborative learning   + Implementation: Scheduled sessions | | | |
| **5. Homework, E- learning 15%**   * Purpose: Student should learn at home and their task is to access Moddle and read the lesson of the last lecture to be prepared for the next lab session * Implementation: Access to online resources | | | |
| **6. Expert learning 10%**   * Expert learning from guests means using the knowledge and expertise of human experts in a field of Orthodontics. * Implementation: Casual guests | | | |
| **Total** | | | **100 %** |
| **Assessment**  **Methods** | **Assessment Activity – Weights (%)** | | | |
| **1. Written Examinations: (20%)**   * + Assessment method: Written examination to assess knowledge and understanding principles of constructing an orthodontic appliances, key concepts, theories and frameworks in Orthodontics. | | | |
| **2. Practical Assessment: (35%)**   * + Assessment method: The application of practical knowledge.   + Continuous assessment of laboratory work   + Course grades will be determined based upon student performance on dental lab   + Students must build 3 removable orthodontic appliances in the lab.   + Practical assessment evaluate student ability to perform laboratory procedures independently.   + Practical assessments means production of orthodontic appliances, which should meet professional standards.   + Practical assessment typically require students to demonstrate their skills in repairing orthodontic appliances. These assessments are designed to evaluate the quality and effectiveness of the repairs, and to ensure that students have a thorough understanding of the techniques required to perform these tasks in a professional setting. | | | |
| **3. Presentations: (10%)**   * + Assessment method: Presentation of essays publicly. A successful presentation means well prepared and confident knowledge of material. | | | |
| **4. Discussion in group: (10%)**   * + Assessment method: Participation in discussions, whether in classroom setting or in group setting. Presentation of seminars | | | |
| **5.Homework, E learning (15%)**  Assessment method: E learning work, Quizzes | | | |
| **6.Guest learning (10%)**  Assessment method: Reflective journals, Congress participation, workshops | | | |
| **Total** | | | **100%** |
| **Course Resources** | **Means** | | | |
| **1. Textbooks and other supporting material**:   * + Textbooks   + Journals   + Online articles   + Videos- webinars   + Multimedia resources | | | |
| **2. Dental lab**:   * The dental laboratory with all equipment and materials offers perfect conditions for excellent practical work for dental technichian | | | |
| **3. Classroom**:   * + Illustrate practical applications of theories in real-world scenarios. | | | |
| **4. Computer and Projector**:   * + Videos   + Webinar and workshops | | | |
| **ECTS Workload** | **Activity type** | |  |  |
| 1. Lectures | | 30 h | 20 % |
| 1. Dental lab | | 60 h | 35 % |
| 1. Group Discussions and Seminars | | 20 h | 10 % |
| 1. Presentation | | 20 h | 10 % |
| 1. Guest learning | | 20 h | 10 % |
| 1. Individual learning | | 30 h | 15 % |
| **Total** | | **180 h** | **100.0 %** |
| **Literature** | * 1. Federico V. Tenti. Atlas i aparateve ortodontike fikse dhe të lëvizshme: Si dhe pse t'i zgjedhim të gjitha teknikat për të gjitha filozofitë. Prishtinë, 2004. * 2. Tony Johnson, David G. Patrick, Christopher W. Stokes, David G. Wildgoose, Duncan J. Wood. Basics of Dental Technology. A Step by Step Approach. Wiley Blackwell 2016. | | | |
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**Pre-requirements for the course**

This course has pre-requirements. The student should pass objective:

1. Orthodontic Appliances 1

**Assessment of Competence**

For the class to reach a bachelor’s level of learning, students must prepare by reading the given material, complete all assignments for each class. Students will be evaluated for participation as:

* Full participation in class activities and group work.
* Participation in class discussions (without dominating the conversation).
* Demonstrating understanding of the content of the material read.
* Providing critical thinking about the subject matter.
* Adding ideas to class discussion.
* Helping others clarify an idea.
* Supporting others as they share their ideas and speak in class.
* Raising new ideas and questions.
* Arriving on time and staying throughout the lesson.

**Participation policy**

Students are expected to attend all lectures and exercises. The importance of class attendance is reflected in the percentage of the grade associated with attendance. You cannot receive attendance grades if you are not in class. If you have an emergency and cannot attend class, please email me in advance to let me know. Class will start on time to honor everyone's commitment. If you are late, please enter the classroom quietly. Participation marks will be deducted for lateness.

**Students must be present at least 70% of the activities.**

**Rules and Regulations**

**Attendance**

UBT College undertakes the responsibility of training future dental technician, to the highest standards. One of these standards is taking responsibility for personal actions. If a student misses a particular session, the student has lost that instruction forever. They can never be repeated. When a student is late to class, the entire class is interrupted. Such interruptions will not be tolerated. Students have a responsibility and a contract to stay in class for the duration of the sessions, for each day. Students who leave sessions early, even if they leave with permission, cause disciplinary problems that will not be tolerated.

You made a contract with the UBTs to be in class and attentive throughout the learning process. Every student must be in every session, every day that is scheduled, throughout the semester.

All teaching sessions begin at their designated times in the lesson timetable. All sessions start and end at designated times in the class schedule. Any student who leaves the class session early will be considered absent.

**Electronic Devices**

It is distracting to everyone in the classroom when cell phones ring during class. This is even worse if it happens during a test or quiz. Since this is a classroom and not a room for listening and/or viewing electronic devices such as smart phones, personal laptops and/or other electronic devices will not be allowed.

The classroom will be a cell phone free zone. If you must bring a cell phone to class, it must be turned off or set to vibrate. It is distracting for a classroom to have students constantly answering cell phones during class. If you absolutely must answer the call, leave the classroom. A student who accepts calls during class will be asked to leave class. Hearing devices will not be allowed in the classroom for any reason.

**Tests And Quizzes**

Tests and quizzes are usually scheduled at the beginning of the lesson. Tests and quizzes are one-way teachers measure a student's knowledge. Failure to participate in tests or quizzes interferes with this process. UBT College does not reward students who do not take their tests or quizzes on time; therefore, the teacher cannot allow students to take tests or quizzes after the deadline.

Tests and quizzes must be taken by each student, any student who asks for help or helps other students during a test or quiz will be removed from the test and will be graded zero for that test or quiz. It is the student's responsibility to prepare for tests and quizzes at all times. It is the student's responsibility to know when there are tests or quizzes to take.

**Seminars and Projects**

Seminars and projects must be done on the student's own time, not during class.

Never allow another student to copy your seminars and projects.

Never copy another student's seminars and projects.

**Due Dates**

One thing all professionals must learn is to be on time. Excuses do not make the student and teacher feel better about their wasted time. For all assigned tasks, sufficient time is given to complete, and all work must be completed in the time set by the teacher. **No delay in the completion of the works will be accepted**.

**Proper Attire**

Professionals must dress appropriately. Any student who does not dress appropriately during class time will not be allowed to participate in class activities.

**Conduct**

Students at UBT College must learn to work in groups, regardless of group composition. Tolerance, courtesy, respect, and a peaceful environment are required in the classroom.

All students are expected to be respectful to other students and to the teacher during class and in dealing with class matters. Disrespectful behavior will affect your participation grade. Examples of respectful behavior in the classroom include, but are not limited to:

* Listening to each other and exchanging ideas.
* Arrival and departure according to the class schedule, except in cases of emergency.
* Turn off the cell phone ringer and do not receive calls in class.
* Speak so that others can hear and understand what you are saying.
* Engaging in class discussion (avoiding side conversations during class and dominating class discussion).
* Listening (not speaking) when the teacher or other students are addressing the class.
* Working collaboratively with a specific or selected group.
* Completion of class work on time.
* Focusing on class topics and not on personal matters or work unrelated to the class.
* Viewing your computer and/or cell phone only when related to class work.
* Raising questions when there is no clarification about the work in class.

**Academic Dishonesty**

Violations of Academic Integrity include, but are not limited to, the following actions:

* Cheating on an exam.
* Plagiarism.
* Working together on an individual assignment, paper, or project when the instructor has specifically stated students should not do so.
* Submitting the same term paper to more than one instructor or allowing another individual to assume one’s identity for the purpose of enhancing one’s grade.