**BSc Dental technician**

**Course Syllabi**

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| **Course** | **Fixed Orthodontic Appliances** |
| Type | Semester | ECTS | Code |
| OBLIGATORY (O) | 5 | 6 | 27 |
| **Course Lecturer** | Prof. Asst. Dr. Miranda Sejdiu Abazi |
| **Course Assistant** | Dr. Vesel Rrustemaj |
| **Aims and Objectives** | Objective of this course is to enable students to recognize and to construct esthetic and functional orthodontic appliances for clinical cases, knows the clinical and laboratory stages of constructing an orthodontic appliance. |
| **Learning outcomes** | **Upon successful completion of this course students should be able to:*** **1.** Understand and use specialty terminology in practice report;
* **1.1** Consider the principles of esthetics, function, and occlusion in producing an orthodontic appliance;
* **2.** Know and recognize the requirements set for the framework of orthodontic appliances;
* **2.1**Learn the requirements set for orthodontic appliances;
* **3.** Select and use materials, apparatuses and work instruments according to the work’s nature by observing instructions, requirements for safety measures and environment saving;
* **3.1** Prepare diagnostic gypsum models;
* **3.2** Describe and evaluate the work process and the done work, to analyze the technological, instructing related and organizational causes of successful and unsuccessful works;
* **3.3** Know and recognize the clinical/laboratory stages of producing orthodontic appliances and can produce them in a laboratory.
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| **Alignment of Course’s Learning Outcomes to Programs’ Learning Outcomes.** | 1. **Application of terminology in practice**
	* BSc Program (Outcome 2, 5): Lectures serve as a foundation to equip students with theoretical knowledge in dental sciences, which is essential for students to apply in practical scenarios.
	* Additionally, communication courses and oral presentations play a crucial role in enhancing written and verbal improve written and verbal proficiency.
2. **Evaluation of requirements in producing orthodontic appliances**:
	* BSc Program (Outcome 3): Laboratory sessions provide a safe and controlled environment for students to learn and experiment, allowing them to develop important skills and techniques in producing orthodontic appliances.
3. **Practical Skill Development**:
	* BSc Program (Outcome 8, 10, 11, 12, 15):
	* Includes technology courses and workshops
	* Practical sessions are crucial in an orthodontic program. This practical training helps students apply what they learned in the classroom to real- world scenarios, building their confidence and competence as future dental technician.
	* Practical sessions demonstrate repair procedures
	* Collaboration with dental professionals in clinical settingsIt is important to recognize the crucial role that dental technicians play in the overall healthcare system. By contributing their skills and expertise, dental technicians are able to support dentists in improving patient outcomes.
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| **Course Content** | **Course Plan** | **Week** |
| Orthodontic Anomalies | 1 |
| Analysis of study models | 2 |
| Analysis of RTG scans | 3 |
| Planning of orthodontic treatment | 4 |
| Orthodontic treatment with fixed appliances | 5 |
| Fixed orthodontic appliances types | 6 |
| Quizzes | 7 |
| The effect of fixed orthodontic Appliances  | 8 |
| Indications and contraindications of fixed orthodontic appliances | 9 |
| Components of Fixed orthodontic Appliances – Active components | 10 |
| Components of Fixed orthodontic Appliances – Passive components | 11 |
| Results of orthodontic treatment | 12 |
| Retention and recurencesReading and interpretation of diagnostic findings, establishing final diagnosis and therapy planning | 13 |
| Presentation of seminars | 14 |
| Final assessment | 15 |
|  | **Laboratory practices** | **Week** |
|  | Reading and interpretation of diagnostic findings | 1 |
|  | Analysis of study models principles | 2 |
|  | Analysis of RTG scan principles | 3 |
|  | Establishing final diagnosis and therapy planning | 4 |
|  | Fixed orthodontic appliance demonstration (active and passive components) | 5 |
|  | Wire bending principles | 6 |
|  | Quizzes | 7 |
|  | Fixed orthodontic appliances: Trans-palatal arch | 8 |
|  | Lower lingual arch | 9 |
|  | Hyrax appliance | 10 |
|  | Nance appliance | 11 |
|  | Quad- helix | 12 |
|  | Working of space saver | 13 |
|  | Retainer appliance design  | 14 |
|  | Practical exam  | 15 |
| **Teaching/****Learning****Methods** | **Teaching/Learning Activity – Weights (%)** |
| The development of a deep understanding of orthodontic appliance principles and practical skills is crucial for students. These carefully crafted methods are designed to achieve both objectives simultaneously.  |
| **1. Lectures: 20%*** + Purpose: To introduce key concepts, models, and theories in knowledge in Orthodontics.
	+ Relevant for: One important aspect of this course is to establish a strong foundational understanding of the subject matter. This involves weekly lectures which will provide theoretical framework for understanding course material.
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| **2. Lab skills ( Hands-on) 35%*** + Purpose: Producing orthodontic appliances.
	+ Relevant for: Laboratory skills are essential in producing high- quality orthodontic appliances. This skills include knowledge of dental materials, experience with different laboratory equipment, and attention to deteails.
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| **3.Presentation of seminars 10%*** Purpose : Research, organize, and create a successful seminar
* Relevant for: Scheduled data for presentation
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| **4. Group Discussions and Seminars: 10%*** + Purpose: By discussing the forefront of orthodontics with peers and colleagues, students can learn from one another and gain a deeper understanding of the course.
	+ Relevant for: Integratory learning: Discussing tips and tricks theories in depth and reflecting on their application in lab.
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| **5. Guest lectures and Workshops**: **10%*** + Purpose: Attending guest lectures which offer opportunities to learn new skills and techniques, in producing orthodontic appliances.
	+ Relevant for: Cassual guests, conferences or workshops
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| **6. Homework, E- learning 15%*** Purpose: Preparing the upcoming lab sessions by accessing Moodle and reviewing the previous lecture’s lesson.
* Relevant for: Utilizing these online resources can greatly enhance learning experience while studying at home.
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| **Total** | **100 %** |
| **Assessment****Methods** | **Assessment Activity – Weights (%)** |
| **1. Written Examinations: (20%)*** + Purpose: To assess understanding of key concepts, theories, and frameworks in orthodontics, and application of theoretical knowledge in laboratory settings
	+ Evaluating knowledge and the ability to recall and explain core principles of producing orthodontic appliances.
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| **2. Practical Assessment: (35%)*** + Purpose: To assess the application of practical knowledge.
	+ Course grades will be determined based upon student performance on dental lab
	+ Students must build 3 removable orthodontic appliances in the lab.
	+ Evaluation of lab sessions every week.
	+ Practical assessment evaluate students ability to perform laboratory procedures independently.
	+ Practical assessments involve the production of orthodontic appliances, which should meet professional standards.
	+ Practical assessment require student to perform their skills in making orthodontic appliance repair. During these assessments, the quality and effectiveness of the repairs are evaluated to ensure that the students have a solid understanding of the techniques required to perform these tasks in a professional setting.
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| **3. Presentation of seminars: (10%)*** + Purpose: Oral presentations improve written and verbal proficiency, also boosts confidence to students
	+ Assessment method: Presentation of seminars
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| **4. Group discussion: (10%)*** + Purpose: To generate new ideas and improve communication.
	+ Assessment method: Discussions in classroom
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| **5. Guest lectures and Workshops (10%)*** Purpose: Listening to experts for more comprehensive larning experience.
* Assessment method: reflective essays
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| **6.Homework, E- learning (15%)*** Assessment method: Student will deliver they homework: like hammer, drawing parts of orthodontic appliances, quizzes etc.
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| **Total** | **100%** |
| **Course Resources** | **Means** |
| **1. Textbooks and other supporting material**:* + Textbooks
	+ Reflective journals
	+ Lectures
	+ Online articles
	+ Multimedia
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| **2. Dental lab**:* With state of the art equipment and a wide array of materials, the laboratory offers an ideal setting for dental technicians to showcase their skills and deliver top notch results.
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| **3. Classroom technology**:* + The practical applications of theories in real- world scenarios are diverse and impactful
	+ Computers
	+ LCD projectors
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| **4. Computer and Projector**:* + Webinars
	+ Video recordings
	+ Workshops
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| **ECTS Workload** | **Activity type** |  |  |
| 1. Lectures
 | 30 h | 20 % |
| 1. Dental lab
 | 60 h | 35 % |
| 1. Presentation of Seminars
 | 20 h | 10 % |
| 1. Discussion in group
 | 20 h | 10 % |
| 1. Guest learning
 | 20 h | 10 % |
| 1. Individual learning
 | 30h | 15 % |
| **Total** | **180 h** | **100.0 %** |
| **Literature** | * 1. [Ravi Kumar](https://www.google.com/search?tbo=p&tbm=bks&q=inauthor%3A%22Dr%2BV%2BRAVI%2BKUMAR%22), Fixed orthodontics for the general practitioner: a handbook for the pre-adjusted edgewise appliance system, 2008.
* 2. Bazat e teknikes fikse, Dalia Demirovic
* 3. 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
* 4. William R. Proffit, Contemporary Orthodontics, Sixth Edition, 2019
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**Pre-requirements for the course**

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

1. Orthodontic Appliances 1
2. Orthodontic Appliances 2

**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.