DEN3008 Prosthodontics - I (propaedeutics)

Course title	Code	Semester	Type of course	Course structure and volume (hours)			ECTS
Prosthodontics -1 (Propaedeutics)	**DEN3008**	**VI**	**Mandatory**	**LECTURE**	15	120	**4**
				Seminar	15		
				Teaching in Stimulatory environment (TSE)	20		
				Teaching in clinical environment (TCE)	12		
				Midterm EX.	1		
				FINAL EX.	2		
				INDEP. WORK	55		
Faculty, the educational program and level of education	**School of Dental Medicine** One cycle (5-years duration) Educational Program "Dentistry".						
Staff	**Maia Beridze,** Assist. Professor, **e-**mail: Maia.Beridze@bauinternational.edu.ge **Mob.tel:** 599 55 54 72 **Rusudan Okropiridze,** Invited lecturer **Mob.tel:** 599 31 31 75 **e-**mail: Rusudan.Okropiridze@bauinternational.edu.ge **Natalia Kurdadze**, Invited teacher Mob.tel: 579 54 26 26 , E.mail: Natalia. Kurdadze@bauinternational.edu.ge **Nata Ramishvili**, Invited teacher Mob.tel: 579 54 26 26 , E.mail: Nata. ramishvili@bauinternational.edu.ge Personal one-to-one consultation can be arranged at an agreed upon date and time						
Duration	17 weeks						

Prerequisite	Dental Anatomy & Occlusion (preclinical odontology) DEN2002
Aim	This course aims to provide advanced knowledge about fundamentals of prosthodontic materials; The materials and instruments used in prosthodontic dentistry, their purpose, classification. This course also aims to provide detailed information about tooth macro anatomy and steps of modeling with wax.
Methods of Teaching/Learning	Interactive lectures; Seminars; TSE
Assessment System and Criteria	**Attendance – the student is obliged to attend 70% of the total number of course hours.** The knowledge of the student is evaluated by a 100 point-based evaluation system out of which 20 points are allocated for the current activity, 20 for each midterm exam and 40 points for the final exam.

1. Current activity -40 points, including the following:

- Verbal Presentation of studied materials (8 sessions, 2 points each)-16 points
- Individual Presentation – 6 points
- Practical Activity -TSE (9 sessions , 2 points each)- 18points

Verbal presentation of studied materials is assessed with the following criteria (2 points each session , total 20 points)

2 Points: The student is well prepared, thoroughly proficient in syllabus material. The answers to the questions are correct, justified and reasoned. The student is thoughtful and well versed in the problem area.

1 Points: The student knows only part of the syllabus topic, the answers to the questions are correct but incomplete / unreasonable.

0 Points: The student is completely unprepared. Does not have knowledge about syllabus topic, cannot answer any questions.

Individual Presentation is assessed with the following criteria (6 points)

1. Topicality of the problem - 2 points;

2. Academic aspect - 2 points;

- Visual and technical quality of the material – 1 point;
- Review of the available modern material related to the topic – 1 point

3. Presentation and communication skills - 2 point;

- Debating and listening culture – 1 point;
- Correct language and style – 1 point;

Practical Activity –TSE (9 sessions , 2 points each)- 18 points

- Performs manipulations perfectly and without errors – 2 points
- Performs manipulations partially and without errors – 1 points
- Student does not participate in manipulation or performs manipulations with errors – 0 points

2. Midterm Exams - 20 points;

- Midterm Exam is conducted the middle of the learning course , in a test-based form (Multiple Choice Questions - MCQ). The test includes 50 questions and the value of each is 0.4 point(s). The highest possible score is 20.

3. Final Exam - 40 points

Final Exam is conducted in a combined way:

- Test-based form (MCQ -50 tests with 0.4 point(s) for each question. ToTal 20 Points

DOPS - Directly observed procedural skills:

Student has to perform following 4 practical assignments on phantom:

- Selects an appropriate material for fixed prosthesis- 5point

- Selects an appropriate material for partial removable prosthesis- 5 point
- Selects an appropriate material for rebasing and relining of removable prosthesis- 5point
- Casting of diagnostic models- 5 point

DOPs assessment criteria:

- Performs manipulations fully. step by step and without errors – 5 points
- Performs manipulations partially and without errors – 4 points
- Performs manipulations with minor errors – 3 points
- Performs manipulations with some errors. some steps are missing– 2 points
- Performs manipulations with lots of errors – 1 point
- Cannot perform manipulation- 0 point

Prerequisite for Final Exam are:

- Prerequisite for Final Exam is the situation when at least 50 % of the current assessment level is achieved.
- 70% of learning course hours should be attended.

The exam is considered being passed by the student if he /she receives 50% or more out of the highest evaluation for the exam . When the total evaluation of the student (current evaluation + midterm exam's evaluation + final exam evaluation) is more that 40 but less than 51 points, even though the exam grade threshold is passed, the learning course is considered not being covered and the student is given the right to exam retake during the additional examination period.

If the final evaluation for the Learning Course, after taking the additional exam, (current evaluation + midterm exams evaluation + final exam evaluation) is less than 51%, the learning course is not considered covered and it must be taken again.

In summary, the student is awarded the credit in case he/she accumulates minimum 51% out of 100%

Positive scores:

(A) Excellent-91 or more points;
(B) Very Good-81-90 points;
(C) Good- 71-80 points;
(D) Satisfactory- 61-70 points;
(E) Enough- 51-60 points;

Negative scores:

(FX) Failure - 41-50 points: the student needs more independent work and is granted a single attempt of exam retake;

(F) Fail - 40 points or less: the student's conducted work is not sufficient and needs to take the course again. The student can take the additional exam during the same semester.

The knowledge of the student is evaluated by 100 score-based evaluation system out of which 40 scores considered for the current assessment, 20 for midterm exam and 40 scores for the final exam.

After the results of final exams are available, students with FX assessment have a right to retake an exam during an additional exam week in the same semester.

An interval between a final and a corresponding additional exam must be at least 5 days after the results of a final exam become available.

Teaching resources	**IMPRESSION MATERIALS, GYPSUM, IMPRESSION TRAYS, INSTRUMENTS FOR MODELING WITH WAX, WAX, DENTAL PHANTOM.**
The core literature	1 Phillips' science of dental materials- Kenneth J. Anusavice, Ralph W. Phillips, Chiayi Shen, H. Ralph Rawls Edition: Twelfth edition. St. Louis, Mo : Saunders. 2013. eBook 2. Dental anatomy and morphology.- Hilton Riquieri, Rodrigo Yamada Riquieri 1st edition, 2019.
The auxiliary literature	

Learning Outcomes

NQF*	COURSE LEARNING OUTCOMES	PROG. LO	Lecture	Seminar	Teaching in simulation environment	Teaching in clinical environment	Midterm ex.	Final exam	ASSES. METH.
KNOWLEDGE AND AWARENESS	• Describes the purpose of the dental instruments and materials, methods of their application. • Lists materials used in prosthodontic dentistry, their classification, designation, which will allow to realize any of the specific cases and apply them to the relevant. • Explains steps of modeling with wax	**2,2 6,6**	**X**	**X**			**X**	**X**	**Verbal Presentation** **MCQ** **Individual presentation**
SKILL	• Selects an appropriate material for prostheses individually. • Demonstrates fabrication of gypsum models. • Performs teeth modeling with wax.	2,2 6,6			**X**			**X**	**Practical Activity** **DOPS**
RESPONSIBILITY AND AUTONOMY	• Works independently	**11.4**		**X**					**PPT**

Learning Course Content

DAYS №	Topics	Lecture (hrs)	Seminar (hrs)	TSE (hrs)	TCE (hrs)
I	**Lecture :** History of development and formation of dental technical material knowledge. Mechanical, technological, physical, chemical properties of materials. **Practical activity** : Demonstrational explanation on study models and demonstrative materials.	1		1	
II	**Lecture :** Basic and auxiliary materials. Materials for models making. Additional materials and accessories for making models **Verbal presentation** of studied material. Dental technical material knowledge. Mechanical, technological, physical, chemical properties of materials. **Practical activity:** Demonstrational explanation rules for their use with study materials.	1	2	1	
III	**Lecture :** General description of metals, basic properties. Alloys. Their classification, description. **Verbal presentation** of studied material.	1	2		3
IV	**Lecture :** Stainless steel, composition, application. Alloys of titan. Cobalt- chromic and cobalt-nickel alloys. **Verbal presentation** of studied material.	1	1		3
V	**Lecture :** Precious metals and alloys, their use, alloys on the basis of noble metals. Gold alloys, silver-palladium alloys. **Verbal presentation** of studied material.	1	2		
VI	**Lecture :** General information of plastic, basic physical, chemical and mechanical properties of polymers. Classification of polymers that are used in prosthetics. Components of plastics, their value. Plastics for hot polymerization. Plastics for cold polymerization. Elastic plastics, their classification, properties. Acrylic elastic materials **Verbal presentation** of studied material. **Practical activity:** Demonstrational explanation rules for their use with study materials.	2	2	1	
VII	Midterm exam	1			

VIII	**Lecture :** Porcelain. Basic properties. Porcelain. Classification of the porcelain masses. Requirements to them. **Verbal presentation** of studied material.	1	2		
IX	**Lecture :** Laboratory equipment. Auxiliary materials, instruments, equipment for work of dental technician. Abrasive materials. Abrasive for grinding, abrasives for polishing. Demonstrational explanation on study models and demonstrative materials. **Verbal presentation** of studied material. Demonstrational explanation on study models and demonstrative materials. **Practical activity:** Demonstrational explanation rules for their use with study materials.	1	2	1	
X	**Lecture:** Morphology of teeth**.** Demonstrational explanation on study models. **Verbal presentation** of studied material **Practical activity:** Demonstrational explanation rules for their use with study materials.	1	2	2	
XI	**Lecture:** Steps of modeling central, lateral incisor, canine of upper and lawer jaws. Demonstrational explanation on study models and demonstrative materials. **Practical activity:** Modeling central, lateral incisor, canine , of upper and lawer jaws with wax.	1		3	
XII	**Lecture:** Demonstrational explanation on study models and demonstrative materials. Steps of modeling first and second premolars of upper jaw. **Practical Activity:** Modeling first and second premolars of upper jaw with wax.	1		3	3
XIII	**Lecture :** Demonstrational explanation on study models and demonstrative materials. Steps of Modeling first and second premolars of lower jaw. **Practical Activity:** Modeling first and second premolars of lower jaw with wax.	1		3	
XIV	**Lecture :** Demonstrational explanation on study models and demonstrative materials. Steps of Modeling first and second molars of upper jaw. **Practical Activity:** Modeling first and second molars of upper jaw with wax.	1		3	

XV	**Lecture :** Demonstrational explanation on study models and demonstrative materials. Steps of Modeling first and second molars of lawer jaw. **Practical Activity:** Modeling first and second molars of lawer jaw with wax.	1		2	3
XVI	**Individual presentation**		4		
XVII-XII WEEK	**Final exam**	2			