CLAIMED
on the session of Propaedeutics of Dentistry
and Materials Science of BSMU
protocol № 1 dated 31 August 2026

Head of the Department R.S. Mekhtiev

PLAN OF PRACTICAL SESSIONS

on discipline

«Materials Science and Fundamentals of Manufacturing Dentures»

for 1 course 1st semester of 2026-2027 academic year

Medical Faculty for International Students (specialty 1-79 01 07 "Dentistry")

№	List of practical sessions
1.	Introduction to the speciality. Organization of dental service in the Republic of Belarus. Medical ethics and deontology. Organization and equipment of a dental office and dental laboratory.
2.	Dentures. Stages of dentures manufacturing. Classification of dental materials.
3.	Dental and dental technician instruments.
4.	Auxiliary materials: impression materials. Classification, requirements, application. Impressions, impression trays. Alginate impression materials: composition, properties, application.
5.	Auxiliary materials: impression silicone materials. Composition, properties, application. Types of silicone impressions.
6.	Auxiliary materials: dental gypsum. Classification, composition, properties, application.
7.	Types of gypsum casts. Requirements for dental casts.
8.	Modeling materials. Investment and insulating materials.
9.	**Final lesson on the topic «Auxillary dental materials».**
10.	Structural base dental materials: metal alloys, classification, requirements, composition, application.
11.	Technological processes for the dentures manufacturing from metal alloys: dental casting.
12.	Technological processes for the dentures manufacturing from metal alloys: stamping, milling, SLS technology, MIM technology. Technologies of denture's metal parts connection.
13.	Basic (structural) materials: heat-cured acrylic resins, requirements, composition, application.
14.	Technological processes used for dentures production from heat-cured acrylic resins.
15.	Basic (structural) materials: cold-cured acrylic resins, requirements, composition, application. Thermoplastic and light-cured polymers. Artificial teeth for removable dentures.
16.	Finger adapted dough method of acrylic resins. Technologies of milling and thermoforming of plastics (acrylic resins).
17.	Basic (structural) materials: ceramics.
18.	Technological processes used for dentures production from ceramic: milling, hot pressing, sintering. Porcelain fused to metal.
19.	**Final lesson on the topic: "Basic (structural) dental materials and technological processes used for dentures production».**