

101201 Dental Materials (1)

[2 cr., 1, 2] The course provides an introduction to the basics of material science in general, the basics of dental materials in particular and the characteristics and physical, chemical, mechanical properties of dental materials used in all dental disciplines. evaluate, compare, and select restorative dental materials for laboratory and clinical use (amalgam, composites, cements, glassionomers, bonding agents, varnishes...). In this course, the chemical, physical, mechanical, and surface properties of metallic, ceramic, and polymeric materials are discussed in detail. In addition, the two materials of most interest in the freshman year, amalgams and composite resins, are discussed in regard to their composition, properties and clinical manipulation.

Lab: Selected dental materials are manipulated to enhance the student's application of the principles of dental materials science. Emphasis is placed on why particular materials and techniques are used, and on how dental materials can be safely handled. The primary goal of the course is to enhance the student's ability to make clinical judgments regarding the use and care of dental materials based on how these materials react in the oral environment.