Department of Oral Rehabilitation Sciences

Division of Dental Biomaterials
Courses offered:

**BIOM 112-Dental Biomaterials I**
Credit: 1 (1 Lec.)
Defines and recites an overview for the basic science of physical, chemical and mechanical properties of dental materials used in all branches of the dental field (metals, polymers, ceramics and composites). Their clinical applications are also presente.

**BIOM 211-Dental Biomaterials II**
Credit: 2 (2 Lec., 1 Pract.) Prerequisite BIOM 112
Provides the students with theoretical and practical information about laboratory and prosthetic dental materials.

**BIOM 212-Dental Biomaterials III**
Credit: 2 (2 Lec., 1 Pract.) Prerequisite BIOM 112
Provides the students with theoretical and practical information regarding the properties and manipulation of restorative dental materials.

Division of Prosthodontics

**Removable Prosthodontics**
Courses offered:

**RPRO 211-Preclinical Removable Prosthodontics I**
Credit: 2 (1 Lec., 3 Pract.) Prerequisite DANT 112
The course provides information about the anatomy of the supporting structures, detailed steps of complete denture construction, material used, impression trays, handling and pouring impressions, record blocks, temporary and permanent denture bases, occlusal rims for recording maxillo-mandibular relations.

**RPRO 212-Preclinical Removable Prosthodontics II**
Credit: 2 (1 Lec., 3 Pract.) Prerequisite RPRO 211
Knowledge about articulators, functions, advantages, requirements and classification are emphasized. Value and techniques for mounting maxillary and mandibular casts are explained. Artificial teeth selection, arrangement of artificial maxillary and mandibular teeth are also demonstrated. Complete denture occlusion, waxing-up and festooning complete dentures, processing waxed-up dentures and processing errors are discussed. Posterior palatal seal, relief, denture repair are presented. Retention and stability of complete denture are also covered.
RPRO 311 - Preclinical Removable Prosthodontics III
Credit: 2 (1 Lec., 2 Pract.) Prerequisite RPRO 212

The course provides instructions for fabrication of removable partial denture, classification of partially edentulous arches, Kennedy’s classification and Applegate’s rules. Objectives, principles and uses of surveyor are also described. Various components of RPD which include denture base, occlusal rests and similar components, intracoronal and extracoronal direct retainer as well as basic principles of clasp design are also elaborated.

RPRO 312 - Preclinical Removable Prosthodontics IV
Credit: 3 (1 Lec., 3 Pract.) Prerequisite RPRO 311

This course is a continuation of RPRO 311 which describes the rest of the components, including indirect retainers as regards forms and functions as well as factors affecting effectiveness of indirect retainers. The major connectors requirements, types including maxillary and mandibular as well as minor connectors are also presented. Stress breakers, types, indications and advantages are described. The course focuses on planning removable partial denture. Laboratory procedures for casting and finishing metal framework are also described. The construction of acrylic partial denture is also covered.

RPRO 411 - Removable Prosthodontics I
Credit: 3 (2 Lec., 5 Clin.) Prerequisite Preclinical phase

The course deals with the management of the completely edentulous patient. Topics include examination, diagnosis and treatment plan, impressions objectives, preliminary and final impression techniques as well as materials used. Techniques for recording maxillo-mandibular relationship, mechanical and physiological method are also practiced clinically. Selection of artificial teeth and principles of occlusion in complete denture, balanced versus non-balanced is also discussed. Try-in of trial denture, principles of remounting, selective grinding, denture insertion, refinement of denture occlusion are also covered as well as instructions given to the patients for the proper use of the prosthesis.

RPRO 412 - Removable Prosthodontics II
Credit: 3 (2 Lec., 5 Clin.) Prerequisite PRS 411

The course enables the student to recognize patients’ complaints, post-insertion care and changes. Management of residual ridge resorption, problems, surgical and prosthetic management are also discussed. Focus on complete denture relining, types and uses of different relining materials. Comprehensive care for geriatric patients and advanced prosthodontic treatment are also introduced. Phonetics and speech problem of prosthetic origin are also discussed.

RPRO 511 - Removable Prosthodontics III
Credit: 3 (1 Lec., 5 Clin.) Prerequisite RPRO 412

The course deals with the management of the partially edentulous patient. Topics include examination, diagnosis and treatment plan, mouth preparation, primary and final impressions, principles and philosophies of design, maxillo-mandibular relationship, trial fitting of metal framework. Principles of tooth selection, try-in, check occlusion, denture insertion, patient’s instructions and complaints are discussed.
**RPRO 512 - Removable Prosthodontics IV**  
Credit: 2 (1 Lec., 5 Clin.) Prerequisite RPRO 511

The course is designed to provide students with the technique for partial denture relining, rebasing and repair. Other forms of partial dentures, attachments used in prosthodontics, factors affecting their selection are also presented. The course presents an introduction to dental implant, implants supported overdentures, impression techniques and criteria for success and failure. It also covers the role of the prosthodontist in maxillofacial prosthesis. Prosthetic management of jaw fractures, problems and management of temporomandibular dysfunction are also presented.

**Fixed Prosthodontics**

**Courses offered:**

**FPRO 211 - Preclinical Fixed Prosthodontics I**  
Credit: 2 (1 Lec., 2 Pract.) Prerequisite DANT 112

Orients students to fixed prosthodontic science, terminology and classifications, instruments used in fixed prosthodontics, principles of tooth preparation, full veneer metal crown, metal ceramic crown preparation, metal ceramic design, all ceramic crown preparations and all ceramics types.

**FPRO 212 - Preclinical Fixed Prosthodontics II**  
Credit: 2 (1 Lec., 2 Pract.) Prerequisite FPRO 211

Designed to introduce students to the advances in all ceramic materials and techniques, working casts and dies fabrication, types and materials, dental waxes types and pattern fabrication, spruing function and techniques. Also investing materials and techniques, alloys for casting, casting and casting defects, alternatives to conventional casting.

**FPRO 311 - Preclinical Fixed Prosthodontics III**  
Credit: 2 (1 Lec., 3 Pract.) Prerequisite FPRO 212

Deals with partial coverage restorations, indications, types of preparations and fabrication, patient reception, body language and communication skills, diagnosis and diagnostic elements, establishing treatment plan and phases of treatment, principles and options of design in fixed prosthodontics.

**FPRO 312 - Preclinical Fixed Prosthodontics IV**  
Credit: 2 (1 Lec., 2 Pract.) Prerequisite FPRO 311

Presents force dynamics, distribution and exacerbating factors, indications for tissue management materials and techniques. Ideal requirements of impression materials, types and techniques. Interocclusal records materials and techniques. Provisional restorations, try in step and cast post fabrication.

**FPRO 411 - Fixed Prosthodontics I**  
Credit: 2 (1 Lec., 5 Clin.) Prerequisite Preclinical phase

Introduces the students to the clinical application, manipulation and cementation procedures, color physics, manual and digital shade selection. Esthetics in fixed prosthodontics, smile lines and correction of aesthetic dilemmas. Pontic designs and indications, connector types and indications, soldering types, materials and equipments.
FPRO 412-Fixed Prostodontics II  
Credit: 2 (1 Lec., 5 Clin.) Prerequisite FPRO 411  

The course covers the precision attachment types and indications, laser physics and indications. Retainers in fixed prosthodontics, advantages and indications, biocompatibility of fixed prosthodontic materials, periodontal aspects, introduction to implants, prefabricated posts, types and uses. Dentist-lab communication.

FPRO 511-Fixed Prostodontics III  
Credit: 2 (1 Lec., 5 Clin.) Prerequisite FPRO 412  

The course covers advances in all ceramic materials and techniques. Resin bonded bridges: types, advantages, indications and preparations, laminate veneers types, advantages, indications and preparations, CAD CAM and MAD MAM in fixed prosthodontics: Types, advantages and scanning methods. Implants biomechanics.

FPRO 512-Fixed Prostodontics IV  
Credit: 2 (1 Lec., 5 Clin.) Prerequisite FPRO 511  

The course covers rapid prototyping types and their advantages, failure of fixed prosthesis, failure of implants, removal and repair of fixed prosthesis, post-cementation care and maintenance of prosthesis. Management of mutilated teeth, implants biomechanics, resin posts and intra-radicular rehabilitation are also covered.

OCLS 311-Fundamentals of Occlusion  
Credit: 1 (1 Lec.) Prerequisite DANT 112  

Covers the basic principle of inter-arch maxillo-mandibular relationships of teeth, jaw movement and its control, skeletal growth and development, anatomy and pathophysiology of the TMJ, clinical occlusal analysis, TMJ disorders, occlusion and periodontal health, orthodontics, removable and fixed prosthodontics.