

## COURSE DESCRIPTIONS

### *General Practice Residency (GPR) in Dentistry*

#### **BIOR 9005 – Advanced Oral Biology Core Course. Five (5) credits.**

The discipline of Oral Biology deals with the structural development and functions of the oral tissues, their interrelationships, and their relation to other organ systems in both healthy and disease stages. The intent of this course is to provide a basis and a logical educational bridge between the Biomedical Sciences and the Clinical Practice of Dental Specialties.

#### **MEDI 9400 – Pediatrics. Two (2) credits.**

#### **PDOC 9000 – Thesis. Eight (8) credits. Pre-requisites: PDOC 9006, PDOC 9101, PDOC 9102.**

This course is designed for the post-doctoral student at the School of Dental Medicine to prepare a research project to obtain a Master in Sciences in Dentistry. It is conducted as an independent study under the supervision of a thesis committee. Grading System: Honor (H), Satisfactory (S), Not Passed (NP)

#### **PDOC 9006 – Research Methods and Applied Statistics for Dental Residents. Five (5) credits.**

The course is designed for post-doctorate (residents) in Dentistry. It focuses on basic concepts of oral health research, study design and planning, statistical analysis for various types of research studies, as well as basics of hypothesis testing and statistical inference. This course is conducted by means of lectures, discussions, and computer lab sessions.

#### **PDOC 9101 – Introduction to Research Planning. Two (2) credits. Pre-requisites: PDOC 9006.**

This course is designed for the post-doctoral student (resident) to complete a literature review and write an outline of the methods to be employed for a research project on a topic related to oral health. The course will be conducted by means of discussions and presentations of students' work.

#### **PDOC 9102 – Research Planning and Statistical Design. Three (3) credits. Pre-requisites: PDOC 9101.**

This course is designed for the post-doctorate student (resident) to complete the methods and statistical design section of a research proposal. This course will be conducted by means of discussions and presentations of students' work. Grading System: Honor (H), Satisfactory (S), Not Passed (NP).

#### **PDOC 9103 – Research Project I. Two (2) credits. Pre-requisites: PDOC 9101.**

This course is designed for the post-doctoral student (resident) to complete data collection and preliminary analysis for a pilot research project. It is conducted as a group or individual study under the supervision of a research mentor. Grading System: Honor (H), Satisfactory (S), Not Passed (NP).

#### **PDOC 9104 – Research Project II. Two (2) credits. Pre-requisites: PDOC 9103.**

This course is designed for the post-doctorate student (resident) to complete the data analysis of a research project and prepare a manuscript on a topic related to oral health. It is conducted as a group or individual independent study under the supervision of a research mentor. Grading System: Honor (H), Satisfactory (S), Not Passed (NP).

#### **PEDO 9400 – Advanced Pediatric Dentistry Seminar. Two (2) credits.**

The content and activities in this course are intended to bring the student above the level of the general practitioner in his knowledge and skills in the diagnosis and treatment planning for the usual and the bizarre oral disorders encountered in children. The content is more specifically oriented to the detection and treatment of conditions affecting the primary and young permanent dentition, such as dental caries, developmental anomalies, and traumatic injuries.

**PEDO 9402 - Advanced Pediatric Dentistry. Two (2) credits.**

This is a continuation of course PEDO 9401 at a more advanced level.

**PEDO 9404 – Interceptive Orthodontics Seminar. Two (2) credits.**

Instruction in Interceptive Orthodontic is intended to develop a knowledge of the fundamental processes of growth and development of the craniofacial complex and understanding of the science of cephalometrics and biomechanical principles applied to the procedures commonly used in the interceptive treatment of malocclusion.

**PEDO 9405 - Interceptive Orthodontic Seminar. One (1) credit.**

This is a continuation of course PEDO 9404. Instruction in Interceptive Orthodontic is intended to develop a knowledge of the fundamental processes of growth and development of the craniofacial complex and understanding of the science of cephalometrics and biomechanical principles applied to the procedures commonly used in the interceptive treatment of malocclusion.

**PEDO 9406 - Interceptive Orthodontic Seminar. One (1) credit.**

This is a continuation of course PEDO 9405. Instruction in Interceptive Orthodontic is intended to develop a knowledge of the fundamental processes of growth and development of the craniofacial complex and understanding of the science of cephalometrics and biomechanical principles applied to the procedures commonly used in the interceptive treatment of malocclusion.

**PEDO 9407 – Anesthesiology Clerkship. Two (2) credits.**

The Clerkship in Anesthesiology for residents in Pedodontics has been designed to teach these specialists some basic principles of General Anesthesia. Residents will have the opportunity to develop some skill in the administration of anesthetics and to expand their general medical knowledge of application in Anesthesiology, pre and postanesthetic management with particular emphasis to the pediatric patient. It will give the resident the opportunity to recognize, understand, and possibly manage (if the need arises) some of the problems that occur during the administration of Anesthesia for oral-denture procedures.

**PEDO 9408 – Advanced Pediatric Dentistry Clinic. Three (3) credits.**

The experience and activities in this clinical course are intended to develop in the student skill in the management, diagnosis, and dental treatment of children. Patients are selected to provide the student with a variety of experiences including routine and special procedures such as, those encountered in patients with developmental anomalies of the teeth. Different age groups are also included in this selection in order that the student become associated with the variations in behavior encountered and their management in the Dental Office. A total of twenty patients are required to be rendered.

**PEDO 9409 – Advanced Pediatric Dentistry Clinic. Three (3) credits. Pre-requisite: PEDO 9408.**

The experiences and activities in the clinical course are intended to develop in the student skill in the management, diagnosis, and dental treatment of children. Patients are selected to provide the student with a variety of experiences, including routine and special clinical procedures such as those encountered in patients with developmental anomalies of the teeth. Different age groups are also included in this selection in order that the student become associated with the variations in behavior encountered and their management in the Dental Office. This is a continuation of course PEDO 9408.

**PEDO 9410 - Advanced Pediatric Dentistry Clinic. Two (2) credits.**

This is a continuation of course PEDO 9408. The experiences and activities in this clinical course are intended to develop in the student skill in the management, diagnosis, and dental treatment of children. Patients are selected to provide the student with a variety of experiences including routine and special procedures such as those encountered in patients with developmental anomalies of the teeth. Different age groups are also included in this selection in order that the student become associated with the variations in behavior encountered and their management in the Dental Office. A total of twenty patients are required.

**PEDO 9411 – Special Pediatric Dentistry Clinic. Two (2) credits.**

This clinical course is designed to give graduate students of Pediatric Dentistry the opportunity to master competencies in the management of special patients and in all aspects of hospital procedures. The Puerto Rico Medical Center Children's Dental Clinic and the Pediatric Hospital Dental Clinic will be the main workshop for the treatment of handicapping conditions.

**PEDO 9412 – Special Pediatric Dentistry Clinic. Three (3) credits. Pre-requisite: PEDO 9411.**

This clinical course is designed to give the graduate students of Pediatric Dentistry the opportunity to master competencies in the management of special patients and in all aspects of hospital procedures. The Puerto Rico Medical Center Children's Dental Clinic and the Pediatric Hospital Dental Clinic will be the main workshop for the treatment of handicapped patients. This is a continuation of course PEDO 9411.

**PEDO 9413 - Special Pediatric Dentistry Clinic. Two (2) credits.**

This course is a continuation of course PEDO 9412. This clinical course is designed to give the graduate students of Pediatric Dentistry the opportunity to master competencies in the management of special patients and in all aspects of hospital procedures. The Puerto Rico Medical Center Children's Dental Clinic and the Pediatric Hospital Dental Clinic will be the main workshop for the treatment of handicapped patients.

**PEDO 9414 – Children with Special Health Care Needs. Four (4) credits.**

This course involves the formal study of children developmental disabilities, their etiology, diagnosis, and treatment. It also includes the study of physical, systemic, and behavioral disorders that are commonly encountered in children and adult patients that require special attention by the dentist. Emphasis is also given to the adjustments made in the treatment plan employed in the management of these patients.

**PEDO 9416 – Dental Education. Two (2) credits.**

The course is designed to equip potential candidates for teaching in Dental Schools with the basic pedagogical knowledge and skills that are necessary for effective teaching. The course is also opened to faculty members. The philosophy, objectives, and the curriculum for the preparation of dentists are studied with emphasis in the following topics: Pedagogical Principles and their Applications for Teaching in the Dental School; Teaching Methodology in Didactic Course, The Laboratory, and the Clinic, Selection and Utilization of Media; Individualization of Instruction; Evaluation of Student's Progress; Planning for Instruction and Content Organization at Various Levels. The methodology of the course includes lectures, discussion, use of audiovisual materials, presentation of topics by students, and actual teaching and projects performed by students.

**PEDO 9419 - Advanced Pediatric Dentistry Clinic. Two (2) credits.**

This is a continuation of course PEDO 9410. The experiences and activities in this clinical course are intended for the development of skills in the management, diagnosis, and dental treatment of children. Patients are selected to provide the student with a variety of experiences, including routine and special clinical procedures such as those of the teeth. Different age groups are also included in this selection in order that the student become associated with the variation in behavior encountered and their management in the Dental Office. A total of twenty patients are required and they must be rendered a comprehensive oral treatment.

**PEDO 9420 - Advanced Pediatric Dentistry Clinic. Two (2) credits.**

This course is a continuation of course PEDO 9419. The experiences and activities in this clinical course are intended for the development of skills in the management, diagnosis, and dental treatment of children. Patients are selected to provide the student with a variety of experiences, including routine and special clinical procedures such as those encountered in patients with developmental anomalies of the teeth. Different age groups are also included in this selection in order that the student become associated with the variation in behavior encountered and their management in the Dental Office. A total of twenty patients are requested to be rendered a comprehensive oral treatment.

**PEDO 9421 - Advanced Pediatric Dentistry Clinic. Two (2) credits.**

This is a continuation of course PEDO 9420. The experiences and activities in this clinical course are intended for the development of skills in the management, diagnosis, and dental treatment of children. Patients are selected to provide the student with a variety of experiences, including routine and special clinical procedures such as those encountered in patients with developmental anomalies of the teeth. Different age groups are also included in this selection in order that the student become associated with the variation in behavior encountered and their management in the Dental Office. A total of twenty patients are required and they must be rendered a comprehensive oral treatment.

**PEDO 9422 – Interceptive Orthodontics Clinic. One (1) credit.**

Instruction in Interceptive Orthodontic is intended to establish an understanding of the fundamental processes of growth and development of the craneofacial complex to serve as basis for comprehensive evaluation of developing malocclusion. Special attention will also be given to mixed dentition analysis techniques, serial extraction, myofunctional therapy, contributory oral habits, tissue changes incidental to tooth movement, dental and skeletal ages analysis, growth prediction and eruption guidance.

**PEDO 9423 – Interceptive Orthodontics Clinic. One (1) credit.**

Instruction in Interceptive Orthodontic is intended to establish an understanding of the fundamental processes of growth and development of the craneofacial complex to serve as basis for comprehensive evaluation of developing malocclusion. Special attention will also be given to mixed dentition analysis techniques, serial extraction, myofunctional therapy, contributory oral habits, tissue changes incidental to tooth movement, dental materials in the orthodontic practice, dental and skeletal ages analysis, growth prediction and eruption guidance.

**PEDO 9424 – Interceptive Orthodontics Clinic. Two (2) credits.**

Introduction in Interceptive Orthodontic is intended to establish an understanding of the fundamental processes of growth and development of the craneofacial complex to serve as basis for comprehensive evaluation of developing malocclusion. Special attention will be given to mixed dentition analysis techniques, serial extraction, myofunctional therapy, contributory oral habits, tissue changes incidental to tooth movement, dental skeletal ages analysis, growth prediction and eruption guidance.

**PEDO 9425 - Special Pediatric Dentistry Clinic. Two to five (2-5) credits.**

This clinical course is designed for the graduate students of Pediatric Dentistry to master competencies in the management of special patients and in all aspects of hospital procedures. The Puerto Rico Medical Center Children's Dental Clinic and the Pediatric Hospital Dental Clinic will be the main workshop for the treatment of handicapping conditions.

**PEDO 9426 - Special Pediatric Dentistry Clinic. Two to five (2-5) credits.**

This course is a continuation of course PEDO 9425. The clinical course is designed for the graduate students of Pediatric Dentistry to master competencies in the management of special patients and all aspects of hospital procedures. The Puerto Rico Medical Center Children's Dental Clinic and the Pediatric Hospital Dental Clinic will be the main workshop for the treatment of handicapping conditions.

**PEDO 9427 - Special Pediatric Dentistry Clinic. Two to five (2-5) credits.**

This course is a continuation of course PEDO 9426. This clinical course is designed for the graduate students of Pediatric Dentistry to master competencies in the management of special patients and in all aspects of hospital procedures. The Puerto Rico Medical Center Children's Dental Clinic will be the main workshop for the treatment of handicapping conditions.

**PEDO 9428 – Evidence Based in Pediatric Dentistry. Two (2) credits.**

**PEDO 9429 - Research Pediatric Dentistry. Four (4) credits.**

**PEDO 9434 - Interceptive Orthodontics Clinic. One to four (1-4) credit(s).**

Instruction in Interceptive Orthodontics is intended to develop a knowledge of the fundamental processes of growth and development of the craniofacial complex and understanding of the science of Cephalometrics and biomechanical principles applying to those procedures commonly used in the interceptive treatment of malocclusion. Special attention will be also given to mixed dentition analysis techniques, serial extraction, myofunctional therapy, contributory oral habits, tissue changes incidental to tooth movement, dental material in the orthodontic practice and dental and skeletal age analysis.

**PEDO 9435 - Interceptive Orthodontics Clinic. One to four (1-4) credit(s).**

This course is a continuation of course PEDO 9434. Instruction in Interceptive Orthodontics is intended to develop a knowledge of the fundamental processes of growth and development of the craniofacial complex, and understanding of the science of Cephalometrics and biomechanical principles applied to the procedures commonly used in the interceptive treatment of malocclusion. Special attention will be also given to mixed dentition analysis techniques, serial extraction, myofunctional therapy, contributory oral habits, tissue changes incidental to tooth movement, dental materials in the orthodontic practice, dental and skeletal age analysis.

**PEDO 9436 - Research Methods for Residents. Two (2) credits.**

This course is designed to familiarize the resident student with the process of designing, planning a research project, develop the library, and writing skills necessary for the preparation of a research proposal. The course will also allow the student to experience the actual doing of the project; develop the necessary research gathering analysis, interpretation and writing involved in the performing and reporting phases of a research project.

**PEDO 9437 - Human Growth and Development. One (1) credit.**

This course has been designed to offer the professional graduated in the area of Pedodontic a general review of the theory and clinical practice, and of the knowledge that is required to understand normal growth and development of infants, children and adolescents in its multiple aspects: physical, metabolic, bone and organs. Factors affecting development at different stages, from conception to maturity will also be analyzed. The course will consist of the oral presentation and analysis of assigned reading material. The material to be assigned is intended to help the professional developed an overall knowledge on human growth and development as well as to help him apply these knowledge on his daily involvement with his patients, including diagnosis.

**PEDO 9439 – Pediatric Physical Diagnosis. Three (3) credits.**

It covers the art and science of taking a good history, making a comprehensive physical examinations, and arriving at a pertinent diagnosis. Emphasis is placed on the Cardio-Pulmonary System.

**PEDO 9445 - Pediatric Oral Pathology. Two (2) credits.**

The dentist who treats children should be proficient in the congenital and acquired pathological conditions that are most prevalent in the early life of the individual. Common conditions, as well as less frequent diseases, including endocrinologic and genetic problems are thoroughly discussed from the standpoint of clinical features, etiology, radiographic, and histological characteristics where applicable, pertinent laboratory tests and prognosis.

**PEDO 9446 - Baby Bottle Tooth Decay Outreach Program. Three (3) credits.**

This course is designed to teach graduates the concepts associated with early childhood caries (ECC), not only from the dental standpoint but with its association to socioeconomic factors. The student through lectures, seminars and field work will be able to understand how disparities in certain groups can become a leading cause of the development of early childhood caries. Through the understanding of this converging factors and the analysis of group composition, graduates will create an outreach program, culturally sensitive, that will assist the community in the prevention of oral disease. Grading System: Passed (P), Not Passed (NP)

**PEDO 9447 – Community Oral Health. Three (3) credits.**

The aim of this elective course is to provide our graduates the basics of Dental Public Health and the skills necessary to implement community based oral health prevention programs. The course will be conducted using lectures and fieldwork. Students will identify such target areas and programs that can be implemented in order to impact and improve community oral health. It is based largely on the needs of the community that will be assessed first. Efforts will be focused on population needs, in accordance to what is socially appropriate and culturally sensitive. The course is elective and is divided in two areas: the didactic component introduces to general aspects of Dental Public Health. The Second Part is dedicated to raise the data that sensibly will give us a clear picture of the problems of the community related to dental disease. Students will be required to visit the field community and be away from the Medical Sciences Campus for at least two hours. Grading System: Passed (P), Not Passed (NP).

**PEDO 9449 – Pediatric Medicine Rotation. Zero (0) credits. Pre-requisites: PEDO 9439.**

This course is designed to help the student/resident become familiar with the common protocols for treatment of the common systemic conditions and management procedures designed to prevent or quickly address pediatric medical illness. Dentists need to be trained in the diagnosis and management of these medically compromised conditions in order to arrive at proper assessments with this growing population at their dental practices. Grading System: Passed (P), Not Passed (NP)

**PEDO – - Statistical Inference in Dentistry. Three (3) credits. Pre-requisites: PEDO 9436, PEDO 9455.**

This course devotes the first half to theoretical considerations relevant to the inferential process. It goes then to the critical interpretation of results from computerized analyses in the testing of hypothesis through varied statistical procedures ("T" tests for one and for two tails, with means and percentages; Chi-Square tests; regression analyses, etc.). The procedures for testing hypothesis are conducted in contexts directly relevant to Dentistry. The critical analysis always culminates with a discussion on the inferential implications of the results. The course covers the basic concepts in probability; the theory relevant to sampling, including the sampling distribution as a theoretical concept; and the most commonly applied distributions (normal curve, the Binomial distribution, the Poisson distribution, the Chi-Square distribution). Tests of hypothesis are conducted with data relevant to Dentistry, in order to affirm the above mentioned concepts. Extensive use is made of presentations by the students in a seminar approach that integrates the practice to the theory.

**PEDO 9500 - Development of Research Project. Three (3) credits.**

The resident will conduct a research project-individually or as a group work-for a already approved by the school's sub-committee for research.

**PROG 9107 – Conscious Sedation for Dental Patients. Three (3) credits.**

This course will cover the available techniques to reduce apprehension in dental patients, this facilitating the performance of the operator and alleviating the tensions of the patients.

**PROG 9515 – Professional Studies in Dentistry. Zero (0) credit.**

This is a course directed to graduated students in Dentistry. The student selects a specific area of Dentistry in which he/she shows interest in order to deepen his/her knowledge and to develop even more the skills previously acquired. The student is exposed to the most recent literature in all fields of Dentistry and to enhance his/her capacity to critically analyze divergent points of view and to become familiar with the new trends. The theoretical knowledge acquired will be place into practice through clinical work, in a full time basis during the semester. The course is offered through lectures, literature review, seminars, clinical work, laboratory and research. At the end of the course the student will have a deep knowledge of the selected subject and will be able to integrate the acquired concepts and the refined skills to apply them in real clinical situations. Grading System: Passed (P), Not Passed (NP).