

COURSE DESCRIPTIONS

Doctor of Dental Surgery

First Year

The dental course is designed to unify the fundamental sciences and dental studies, as it is believed that scientific and professional development cannot be sharply differentiated, but should proceed concurrently throughout the entire dental course.

In the first year the student is taught many of the basic science courses which are the foundation for clinical dentistry. In these courses every opportunity is taken to introduce dentally relevant material. At the same time the student is introduced to some of the broader concepts of the practice of dentistry. An important aspect of this first year is the student's introduction to dental materials and the technical aspects of restorative dentistry. In these courses particular attention is paid to evaluating digital skills so that students with potential problems in this area can be identified.

DEN103Y1 Community Dentistry

The first year curriculum in Community Dentistry consists of four modules. The modules are designed to provide the context and scientific support for the evidence-based approach to improving the population's oral health.

MODULE I: EPIDEMIOLOGICAL METHODS

This module provides students with an understanding of the scientific methods in the study of health and disease. Students will learn: the epidemiological approach and logic of epidemiological enquiry; descriptive, analytic and experimental epidemiological designs and their strengths and weaknesses; measures of risk; and common flaws in epidemiological studies.

MODULE II: EPIDEMIOLOGY OF ORAL DISEASES

In this module, students will cover the epidemiology of dental caries, periodontal disease, oral cancer, and orofacial diseases, including risk factors that point to individual and population level preventive strategies. Measures of oral diseases and oral health-related quality of life will also be addressed.

MODULE III: DETERMINANTS OF HEALTH AND POPULATION HEALTH STRATEGIES

This module will develop the student's understanding of current concepts of health and the significance of health outcomes in clinical

practice and the broader social and environmental factors that impact on the health of individuals and populations.

MODULE IV: CURRENT ISSUES IN DENTAL HEALTH CARE

Although society has established health professions and delegated its health care to them, issues continue to arise between society and the profession. This module explores the nature of these issues from both society's expectations and the profession's perspective. The specific topics vary from year to year and guest lecturers who have special insights often provide the lectures in this module.

Text: Daly B, Watt R, Batchelor P, Treasure E. *Essential dental public health* (1st edition). Oxford: Oxford University Press, 2002 (recommended).
Handouts: supplied in class.
D. LOCKER, STAFF

DEN106Y1 Gross Anatomy

This course is designed to provide a general understanding of the gross structure and function of the human body from conception to old age. In addition, a comprehensive, detailed study of the head, neck and central nervous system is undertaken to provide the student with a basis upon which to build his/her clinical knowledge. Students will be required to dissect the abdomen, thorax, neck, head and brain in order to complement and reinforce the lecture series. Students are advised to read Chapter 1 of *The Anatomical Basis of Dentistry* before classes start.

Texts: Netter's Atlas of Anatomy & Gray's Anatomy for Students, Elsevier Canada (required)
Gray's Dissection Guide for Human Anatomy, Elsevier Canada
R. TALWAR, STAFF

DEN109H1 Histology

This course deals with the microscopic structure of the human body with special emphasis on the components of the oral cavity. During the first half of the course the microscopic anatomy of the tissues of the body and the body organ systems is presented. The second half of the course deals in detail with the development and microscopic structure of the oral tissues.

The course content is delivered using a learning management system to provide an online environment. A virtual slide box allows the microscopic specimens to be studied using a

computer. This innovation has advanced the teaching of histology from classical microscopy using the optical microscope and glass slides to virtual microscopy using the computer.

Texts: Oral Histology, Development, Structure and Function, 7th Edition, A.R. Ten Cate, C.V. Mosby Co. 2008 (reference)

Wheater's Functional Histology. A Text and Colour Atlas. 5th Edition, 2006, Young & Heath (reference)

E. FREEMAN, STAFF

DEN112Y1 Introduction to Clinical and Preventive Dentistry

The Introduction to Clinical and Preventive Dentistry (ICPD) course is divided into three components.

ICPD Clinical provides the student with an introduction to clinical dentistry with an emphasis on oral diagnosis and preventive dentistry. The course uses lectures and clinical sessions to introduce basic methodology in assessing oral health status (i.e., history taking, and clinical examination); caries risk (i.e., caries risk assessment, salivary analysis, oral hygiene instruction); and periodontal health status (i.e., gingival bleeding index, plaque scoring). The relevance of this information is discussed in planning an appropriate preventive treatment plan to meet individual patient needs.

The **Rotating Group Assignments** (RGA) are a series of rotating seminars and clinical sessions that address unique patient groups (i.e., challenged, geriatric, dentally anxious), patient education and communication, as well as provide additional clinical experience working with senior dental students.

The **Periodontal Module** is the third component of the course. Periodontal instrumentation principles and techniques are taught in preclinical sessions using dentoforms, and clinical sessions where students act as both patients and operators. Emphasis is placed on the development of fundamental skills such as patient/operator positioning, fulcrum, direct/indirect vision, and instrument grasp and utilization as the basis for learning periodontal assessment skills of periodontal probing and calculus detection.

Manuals: Introduction to Clinical and Preventive Dentistry Student Manual; Periodontal Module Manual; Department of Oral Medicine Manual
Texts: Fundamentals of Periodontal Instrumentation and Advanced Root Instrumentation. 5th ed. J.S. Nield-Gerhrig, 2004 (reference)

Periodontal Instrumentation. 2nd ed. A.M. Patterson, G.L. Patterson, 1992 (reference)
Techniques and Theory of Periodontal Instrumentation. D.A. Pery, P. Beemsterboer, F.A. Carranza, 1990 (reference)
L. DEMPSTER, STAFF

DEN115H1 Nutrition

This course provides an overview of the relationship of nutrition to human health. As well as reviewing nutrient function and requirements, the course offers an insight into Canadian nutrition directives and they're rational; application of principles of nutrition to the different stages of the life cycle and identifies reliable resources in the community. Current nutrition issues of interest to consumers and health professionals are discussed. The course is designed to build upon principles established in Biochemistry and Physiology and to complement instruction in Preventive Dentistry.

Texts: Supplementary Notes (Department of Nutritional Sciences) required given in class. Supplementary Text, Nutrition, Concepts and Controversies,Sizer and Witney, 6th ed., West Publishing Co., 1994 (reference)

D. HENNYEY, STAFF OF THE DISCIPLINE OF NUTRITIONAL SCIENCES

DEN118H1 Dental Anatomy and Occlusion

This course is designated to teach the students:

(1) Tooth notation (2) the internal and external anatomy of the deciduous and permanent teeth, (3) the chronology of dental eruption, (4) evolution of molar tooth, (5) genetic and environmental factors that influence teeth morphology, (6) dental anatomy and restorative dentistry, (7) development and description of primary occlusion, (8) development of early adult occlusion, (9) fundamental principles of static and dynamic occlusion, and (10) malocclusion.

Texts: (a) Dental Anatomy Atlas; (b) Pediatric Dentistry Manual; Faculty of Dentistry; Department of Pediatric Dentistry; University of Toronto (9th edition – 2006); (c) Damle SG. Textbook of Pediatric Dentistry (1st edition – 2000); (d) DADAS version 1.0. John T. Mayhall & Phillip L. Walker; (e) Abrams J. Kraus' Dental Anatomy and Occlusion (2nd edition – 1992)

A. PRAKKI, STAFF

DEN121Y1 Biological Basis of Oral Health and Disease

This comprehensive course is designed to provide the preclinical student a broad-based understanding of the basic biological and physiological processes related to the healthy and diseased states of the oral cavity, including the dentitions. The first set of lectures explores the physiology of oral-facial functions, particularly

those associated with pain and touch, taste, chewing, swallowing, respiration, related motor activities, oral-facial microcirculations and development of speech and language.

The second series of lectures deals with the genetics, formation, composition, metabolism, development, repair and regeneration of hard and soft tissues of the oral cavity. The physiology of saliva production, its composition and the microbial ecology of oral biofilms, as they relate to oral diseases and their prevention, are introduced. The continuum of changes from birth to senescence that occur in the oral cavity and their impact on dental treatment are presented in a series of lectures. Concepts related to the psychological importance of the oral cavity in overall health and the psycho-physiological correlates of the oral cavity are discussed. These lectures are complemented by laboratory sessions in Oral Biochemistry. References and course content are available to students on Blackboard.

Text: Oral Biology, Roth and Calmes, C. V. Mosby Co. (reference)

G.V. KULKARNI, B. J. SESSLE, STAFF

DEN124Y1 Microbiology

The course covers basic, pathogenic and oral microbiology and immunology. Its objective is to provide the dental student with an understanding of microorganisms and of their interactions with the human host in health and disease. Emphasis is placed on (1) diseases with oral and facial manifestations, (2) diseases influencing the planning and performance of dental treatment for patients, and (3) diseases of major public health importance. Special emphasis is placed on the concept of dental caries and periodontal disease as infectious diseases, and their possible prevention using antimicrobial strategies.

Texts: Oral Microbiology and Immunology, Nisengard and Newman, 2nd Ed., W. B. Saunders (reference)

Oral Microbiology, Marsh and Martin, 3rd Ed., Van Nostrand Reinhold (reference)

The Biologic and Clinical Basis of Infectious Diseases, Shulmar, Phair and Sommers, 4th Ed., W. B. Saunders (reference)

Essential Immunology, Roitt, 8th Ed., Blackwell (reference)

E.D. FILLERY, STAFF

DEN130H1/DEN180H1 Restorative Dentistry

These courses in restorative dentistry begin early in January. The students are introduced to the basic principles in the treatment of dental caries by restorative means. The principles of cavity preparation are related to the physical properties of the restorative material and to the anatomy and histology of the dental tissues. The

relationship between restorative procedures and prevention of further disease is stressed.

Lectures on instrumentation, cavity preparation and restoration are supplemented by group instruction in the laboratory. Practice in developing digital dexterity in cavity preparation and restoration is provided by preclinical exercises on ivory teeth in a manikin head for clinical simulation.

Texts: First Year Operative Manual (required)

Fundamentals of Operative Dentistry - A Contemporary Approach, Summit, Robbins and Schwartz, Quintessence Books, 2006. (required)

Restorative Dental Materials.

Craig, R.G., 12th edition, C.V. Mosby Co.

2006 (reference)

Phillips' Science of Dental Materials, Anusavice-

11th edition, Saunders, Elsevier Science 2003

(reference)

W. EL-BADRAWY, STAFF

DEN150Y1 Biomaterials Science

The objective of this course is to provide fundamental knowledge of materials science required to understand the scientific basis for selection, preparation and use of dental materials. The lectures include knowledge from various fields such as metallurgy, engineering mechanics, ceramics, polymer science and chemical engineering. The laboratory program provides direct exposure to various classes of dental materials. In the laboratory the relationship of manipulation variables to microstructure, mechanical properties, bio-stability and clinical performance is emphasized.

Text: Phillip's Science of Dental Materials: K.J.

Anusavice, W.B. Saunders Co., 11th Edition

Y. FINER, STAFF

DEN177H1 Prosthodontics

Prosthodontics is a clinical discipline focused on alleviating the needs of patients with acquired loss or congenital absence of oral tissues by improving function, comfort and appearance using suitable artificial substitutes made from alloplastic materials. Prosthodontic care is holistic and integrates knowledge acquired in several other basic and clinical courses. Some of the fundamentals taught in the 1st year basic sciences courses will be reinforced by contextualizing these to particular elements of prosthodontic practice. The student will also learn how to complete a limited number of selected clinical and laboratory procedures commonly applied in conventional and implant prosthodontics. The teaching format includes lectures, group discussions and seminars, take-home projects, and e-learning simulations, complemented with practical demonstrations followed by laboratory and clinical exercises.

Texts: McCracken's Removable Partial Prosthodontics. Car, McGivney and Brown, 11th ed., Elsevier Mosby, 2004 (required)
 Contemporary Fixed Prosthodontics, Rosenstiel, Land and Fujimoto, 4th ed., Elsevier, 2006 (required)
 Dental Materials and Their Selection, O'Brien, 3rd ed., Quintessence Publ. 2002 (reference)
 ITI Treatment Guide, Buser, Belser and Wismeijer, Volumes 1 and 2, Quintessence Publ. 2002 (reference)
 A. JOKSTAD, STAFF

Second Year

In Second Year the student's education in the basic sciences is completed and more emphasis occurs on the study of dental disease and its treatment. Combined teaching in the practical arts of dentistry occurs in this year.

DEN200H1 Anaesthesia

The courses in anaesthesia extend from second through the third and fourth dental years. They cover aspects of pain control and patient management in order to provide the dental student with the knowledge and skills needed to render the conscious patient freedom from pain and apprehension.

The objectives of the course in second year are to provide the students with the in-depth pharmacology of those local anaesthetics and vasoconstrictors used in dentistry, as well as the ability to technically administer these drugs and achieve local anaesthesia. The first part of the course discusses the detailed specific injection techniques covering all forms of intra-oral anaesthesia for dentistry in the mandible and maxilla, their complications, and the required armamentarium. Students then practice these injection techniques on each other in the clinic. The second part provides an in-depth discussion of the pharmacology of local anaesthetics.
 Text: Handbook of Local Anesthesia, S.F. Malamed, Mosby (required) 5th ed. 2004.
 D.A. HAAS, STAFF

DEN203H1 General Pathology

The Department of Laboratory Medicine and Pathobiology, Faculty of Medicine, presents this course to instruct second year students in the general principles of pathology, with a particular emphasis on the morphological aspects of disease. The course content includes both general and basic systemic pathology. Clinical pathological correlation is emphasized.
 Texts: Robbins' Basic Pathology, 8th Edition, V. Kumar, Abbas, A.K., Fausto, N., Mitchell, R.N., 2007 Saunders Elsevier (smaller textbook).

Wheater's Basic Histopathology, 4th ed., Stevens, A., Lowe, J.S., Young, B. 2002
 Churchill Livingstone
 J.W. WONG, STAFF

DEN206Y1 Microbiology

The course covers basic, pathogenic and oral microbiology and immunology. Its objective is to provide the dental student with an understanding of microorganisms and of their interactions with the human host in health and disease. Emphasis is placed on (1) diseases with oral and facial manifestations, (2) diseases influencing the planning and performance of dental treatment for patients, and (3) diseases of major public health importance. Special emphasis is placed on the concept of dental caries and periodontal disease as infectious diseases, and their possible prevention using antimicrobial strategies.

Texts: Oral Microbiology and Immunology, Nisengard and Newman, 2nd Ed., W. B. Saunders (reference)
 Oral Microbiology, Marsh and Martin, 3rd Ed., Van Nostrand Reinhold (reference)
 The Biologic and Clinical Basis of Infectious Diseases, Shulmar, Phair and Sommers, 4th Ed., W. B. Saunders (reference)
 Essential Immunology, Roitt, 8th Ed., Blackwell (reference)
 E.D. FILLERY, STAFF

DEN207Y1 Community Dentistry

MODULE V: CLINICAL EPIDEMIOLOGY – THE SCIENTIFIC METHODS UNDERLYING EVIDENCE-BASED HEALTH CARE

This module will provide students with skills in clinical epidemiology which are needed to appraise the design and results of studies reporting on aetiology, diagnosis, prognosis, efficacy and the relative costs and benefits of interventions for conditions that affect oral health. Readings and assignments are supported by lectures to illustrate the material and demonstrate its application to clinical questions in dentistry. At the end of this module, the students will have the critical skills needed to produce a short evidence-based report on a clinical problem in Module VI.

MODULE VI: EVIDENCE-BASED CARE—SMALL GROUP LEARNING MODULE

The aim of this module is to develop applied skills in clinical epidemiology by presenting small groups of students with a clinical question to be answered, and having them communicate the results of an evidence based-report written and orally.

Text: Clinical Epidemiology: the Essentials, 4th Edition, Fletcher and Fletcher, Lippincott.
 Williams and Wilkins, Baltimore (recommended)
 D. LOCKER, STAFF

DEN208H1 Endodontics

This course offers the student didactic, pre-clinical and clinical experiences that are directed towards fostering understanding about the nature, the diagnosis, and the treatment of pulpal and periapical disease.

The didactic and pre-clinical courses are given during the winter and spring terms of 2nd year. The pre-clinical component focuses on the treatment of anterior and premolar teeth. Both components are directed towards preparing the student to perform basic clinical endodontic procedures prior to entering the clinics in third year.

Texts: Manual of Endodontics - Faculty of Dentistry, University of Toronto (required)
Pathways of the Pulp, Cohen & Hargraves, 9th Edition, C. V. Mosby Company 2005 (reference)
Endodontology, S. Seltzer, 2nd ed., Lea & Febiger (reference).

Seltzer and Bender's Dental Pulp. Quintessence Int, 2002.

Problem Solving in Endodontics, J. L. Gutmann, T. C. Dumsha, P. E. Lovdahl, Year Book Medical Pub. 2005 (reference).

Principles and Practice of Endodontics, R. Walton, M. Torabinejad, W. B. Saunders Company 2001 (reference).

Clinical Endodontics, L. Tronstad, Thieme 2002.
Endodontic Therapy, F. Weine Mosby, 2003.

A. PLAZAS-GARZON, STAFF

DEN211Y1 Periodontics

The principal objective of the full program in periodontics is to educate and prepare general practitioners of dentistry to serve the universal public need of prevention, recognition and comprehensive diagnosis and treatment of periodontal diseases. The program in second year commences in-depth education in periodontics, building on the conceptual foundations established in the first year programs in basic sciences, community dentistry, and introduction to clinical and preventive dentistry. The program integrates didactic, preclinical and clinical elements aiming to achieve detailed understanding of the pathogenesis, diagnosis, and approaches to therapy for the more common types of periodontal conditions. The didactic element centers on periodontal pathology, etiology (integrates with the second year program in microbiology), classification of periodontal diseases, fundamentals of clinical decision-making, and treatment of inflammation. The clinical element centers on the control of inflammatory periodontal conditions by concentrating on examination, patient motivation, oral hygiene, and scaling and root planing skills. The clinical program encompasses sessions during which students both practice these skills on student

partners and administer maintenance care to previously treated general clinic patients in a structured program under close supervision. The emphasis is to impress upon students the importance of periodontics within the realm of general dental care for the long term maintenance of a healthy natural dentition. At the completion of the year, students should possess the knowledge, motivation, and clinical judgement and skill to diagnose and treat mild forms of inflammatory periodontal diseases and to maintain periodontal health in patients requiring individualized preventive services.

Texts: Clinical Periodontology, Carranza's, 10th Edition 2006 (recommended)

Color Atlas of Dental Medicine (Periodontology), Wolf, Rateitschak and Hassell, 3rd edition 2005 (reference)

Fundamentals of Dental Hygiene Instrumentation, Nield & Houseman, Lea & Febiger, 2nd edition 1998 (reference)

E. FREEMAN, STAFF

DEN212Y1 Pharmacology

The objective of the course is to provide students with a broad knowledge of drugs, including their fate in the body, mechanisms of action, effects and use in the treatment of disease. Upon completion of the course the students should have an understanding of general principles as well as the pharmacology and therapeutics of all categories of drugs. There is a greater emphasis on agents commonly used in dentistry. The major topics covered include general principles, autonomic, general anaesthetics, analgesics, anti-infectives, central nervous system drugs, cardiovascular, respiratory and endocrine drugs, among others. This course provides the basis for the third year course in pharmacology which continues with topics on therapeutics of direct importance in dental practice.

Texts: Principles of Medical Pharmacology, Kalant, Grant and Mitchell, 7th ed., 2007 (required).

Pharmacology and Therapeutics for Dentistry; Yagiela, Dowd and Neidle; 5th ed., 2005 (reference)

Pharmacological Basis of Therapeutics, Goodman and Gilman, 11th edition (reference)

H.A. GRAD, J. LANCA, STAFF

DEN215H1 Preventive Dentistry and Clinical Nutrition

This course is presented in two sections:

The Preventive Dentistry lecture series describe the prevalence and patterns of dental caries and explores the scientific basis for various clinical and public health procedures for caries prevention which are currently in use or are under development. Topics include the use of

dietary control or dietary additives, mechanical and chemical plaque control and various procedures used to increase the caries resistance of teeth, i.e. occlusal sealants, topical and systemic fluoride. This knowledge is applied to child patients in the Ortho-Paedo clinical program.

Texts: Understanding Dental Caries, Volume 2, Prevention, Gordon Nikiforuk (required)
Understanding Dental Caries, Volume 1, Etiology, Gordon Nikiforuk (recommended)
Fluoride in Preventive Dentistry, Mellberg and Ripa (reference)

H. LIMEBACK, STAFF

The Clinical Nutrition lectures deal with the practical application of nutritional principles, including dietary analysis and nutritional counselling with particular emphasis on the prevention of dental disease. Certain medical conditions with dietary implications are considered. Small group workshops are used to develop the students' skills in counselling and communication. Texts: Nutrition in Clinical Dentistry 3rd Edition, Nizel and Papas (reference), Dental Communications, D. W. Chambers & A. G. Abrams (reference)

D. HENNEY, STAFF

DEN218Y1/280Y1 Restorative Dentistry

The objective of this course is to prepare students for clinical practice in third and fourth years. Students are taught the principles, which govern the need for initial and retreatment restorative therapy, the criteria for long-term clinical acceptability and the reasons for restorative failure. The principles and methods for restoring teeth to structural, functional and aesthetic acceptability are presented in lectures and laboratory demonstrations.

The course is divided into three modules. The fall term is devoted to restorative therapy requiring direct restorative methods. The winter term involves preparations for laboratory-fabricated restorations. Preclinical treatment sessions utilize ivory and natural tooth typodonts in phantom heads specially designed to simulate the clinical condition. The spring term module has two components: restoration of the endodontically treated tooth and cariology. The cariology section features treatment of simulated carious lesions on ivory teeth and actual caries on extracted teeth. Emphasis is given to the diagnosis of initial and recurrent caries, provision of conservative restorative therapy and the decision making process related to replacement therapy.

Upon completion of the course students should possess the appropriate theoretical and practical knowledge and have developed the manual

expertise to provide patients with the majority of single tooth restorative services required in modern dental practice.

Texts: II Year Restorative Manual (required)
Fundamentals of Operative Dentistry-A Contemporary Approach, Summitt, Robbins, Hilton & Schwartz, 3rd Edition. Quintessence Publishing Co. 2001 (required)
Fundamentals of Fixed Prosthodontics. Shillingburg, H. et al. 3rd edition. Quintessence Publishing Co. 1997 (required)
Fundamentals of Tooth Preparations for Cast Metal and Porcelain Restorations. Shillingburg, H. et al. Quintessence Publishing Co. 1987 (reference).

Phillips Science of Dental Materials, Anusavice, K.J. 11th ed. Quintessence Publishing Co. 2003 (reference)

Quality Evaluation of Dental Restorations. Anusavice, K.J. Quintessence Publishing Co. 1989 (reference)

J. BROWN, STAFF

DEN265Y1 Orthodontics

The Orthodontic course comprises lectures, laboratory instruction, clinical seminars, and clinical practice in the second, third and fourth years. The objective is to teach students to recognize, diagnose and intercept orthodontically the various forms of malocclusion, except those associated with systemic diseases and abnormalities in the skeleton.

Cephalometric analysis is studied as a basis for providing knowledge of normal and abnormal facial development. During second year, students participate in lectures, case analysis seminars and laboratory exercises designed to prepare them for clinical practice in the third and fourth years. During the third and fourth years, the students participate in lectures, clinical seminars and undertake clinical practice designed to teach the etiologic factors associated with the genesis of orthodontic abnormalities.

Texts: Contemporary Orthodontics, William R. Proffit, et. al. 4th Ed., Elsevier, 2007, (required)

S. SURI, STAFF

DEN265Y1 Paediatric Dentistry

Paediatric Dentistry commences in second year and continues throughout third and fourth years. The didactic and clinical program develops the concept that Paediatric Dentistry is concerned with total dental care of the child and adolescent during growth and development from birth to adolescence. The management, prevention and treatment of dental conditions in children are emphasized during clinical sessions.

Second Year: The restorative component is introduced at the preclinical level in conjunction with the Department of Restorative Dentistry.

These procedures are supplemented by lectures, seminars and videotape demonstrations. The Paediatric Dentistry component of the Orthodontic/Paediatric Dentistry program is under the direction of Professor M.J. Sigal and Dr. R. Revuelta, Preclinical Program directed by Drs. J. Wiles and J. Rukavina. Text: Paediatric Dentistry Clinic Manual, 9th edition, Sigal (required)
M. SIGAL, STAFF

DEN277Y1 Prosthodontics

The learning objectives of this course are 3-fold: 1) to understand the attributes of the dentition and the physiological changes that occur over time, as well as pathological events with and without tooth loss. This will form the basis for learning how 2) to apply mechanical and biological principles in prosthesis treatment planning and design to improve or restore the form and function in partially edentulous situations. The student will learn how 3) to complete a limited number of selected clinical and laboratory phases of removable and fixed partial prostheses, including implant-supported single crowns, with fabrication taking place on student partners, stone models, and manikins as appropriate. The teaching format includes lectures, group discussions and seminars, take-home projects, and e-learning simulations, complemented with practical demonstrations followed by laboratory and clinical exercises.

Texts:

Teaching material located on Intranet:
<http://sp.dentistry.utoronto.ca/prostho/2ndyear/>
McCracken's Removable Partial Prosthodontics. Carr AB, McGivney GP, Brown DT (eds.), 11th ed., Elsevier Mosby, 2004 (required)
Contemporary Fixed Prosthodontics. Rosenstiel SF, Land MF, Fujimoto J (eds.), 4th ed., Elsevier, 2006 (required)
Dental Materials and Their Selection. O'Brien WJ (ed.), 3rd ed., Quintessence Publ. 2002 (reference)
ITI Treatment Guide. Buser D, Belser U, Wismeijer D (eds.), Volumes 1, 2, 3. Quintessence Publ. 2007, 2008, 2009 (reference)
P.L. MCDERMOTT, L. LAING GIBBARD, A. JOKSTAD, STAFF

DEN312Y1 Medicine

The course starts in January of Second Year and continues until December of the Third Year. The course is designed to provide basic knowledge of common chronic adult medical illnesses. The purpose is to both understand patients' chronic conditions as well as to have an approach to treating patients with chronic medical conditions. The relevance of the illnesses on the practice of dentistry is emphasized throughout the course.

There are written tests at the end of the winter and fall term.

Text: Davidson's Principles and Practice of Medicine, 20th Ed. (recommended)

R. WU, STAFF

DEN317Y1 Oral Radiology

Lectures and laboratory exercises introduce the student to the principles of radiation physics and hygiene, radiation biology, radiographic technique and radiographic interpretation of normal anatomy and common diseases affecting teeth and jaws.

Texts: Oral Radiology: Principles and Interpretation, White & Pharoah, 6th ed., CV Mosby (required)

Oral Radiology, Poyton & Pharoah, 2nd ed., B.C. Decker Inc. (reference)

Principles and Practice of Oral Radiologic Interpretation, Worth, Year Book Medical Publishers Inc. (reference)

R. BARLOW, S. PERSCHBACHER

DEN356Y1 Oral Diagnosis and Oral Medicine

A course of lectures, seminars and clinical sessions teach the student a system of diagnosis of dental and oral disease. Emphasis is placed on methods of history taking, examination, patient evaluation and management as well as treatment planning, with special attention to the medically compromised patient. This course starts during the second year post-examination period and continues to the end of Third Year.

Texts: Dental Management of the Medically Compromised Patient, Little, J. W. and Falace, D. A., 6th Ed., C. V. Mosby Co. 2002 (required)
Department of Oral Medicine, An Outline of Oral Diagnosis (required)

Internal Medicine for Dentistry, Rose, L. F. and Kaye, D., 2nd Ed., C. V. Mosby Co. 1990 (recommended)

C. KILMARTIN, STAFF

Third Year

Clinical Practice

The student now embarks upon the provision of clinical care for assigned patients. Emphasis is on the comprehensive assessment and appropriate management of the oral care needs for all patients for whom the student is the primary provider. Wherever possible, new patients are assigned to students at their initial appointment in Oral Diagnosis in order to allow continuity of care from initial patient assessment to treatment completion within the Comprehensive Care Program which begins in

the Fall Term, Clinical Coordinators educate and assist students in the development of rational, appropriately phased treatment plans, building upon the diagnostic information gained during the initial patient visits. Consistent with current standards of optimal patient care, considerable emphasis is placed on the control and prevention of oral disease.

Discipline-specific clinical teaching takes place within the Comprehensive Care Program. Students perform clinical procedures under the close supervision and guidance provided by discipline instructors. During all clinical sessions, students apply the basic principles, knowledge and skills that they have acquired in their pre-clinical education with the objective that by the end of the year each student is able to provide a wide range of the basic treatment services with an appropriate level of confidence.

A series of group clinics and seminars in various phases of clinical dentistry is conducted by the staff throughout the clinical course. Group clinics are also conducted in the teaching hospitals of the city of Toronto where students are rotated through both dental and medical hospital departments.

During clinical sessions students are provided with the opportunity to treat selected patients utilizing the various methods of pain control and patient management. A pharmacy in the clinic reinforces teaching of Pharmacology and Therapeutics by facilitating the writing of accurate prescriptions for patients. Students consult with the clinical pharmacist in the management of various therapeutic problems which, can arise in patient treatment. They also learn to communicate with the patient's physician in order to assess medical problems and their impact on potential treatment. Students also have the opportunity of working closely with trained auxiliary personnel in a manner, which simulates the private practice environment.

During the Fall and Winter terms of Third Year the students must achieve all stated minimum numerical requirements with passing or better grade standing and attend all assigned seminars and clinics in order to qualify for entry into the final year of the Comprehensive Care Program (450Y1/451Y1) in May of Third Year. Refer to Third Year Clinical Requirements Handout for remedial training in the Third Year clinical programs.

DEN301Y1 Anaesthesia

The objective of this course is to provide the ability to administer conscious sedation when indicated for patients in dentistry. The focus is to achieve competency in the administration of nitrous oxide:oxygen conscious sedation. Students should also become knowledgeable in

oral sedation and aim for competency in its administration for adult patients. This course will also supplement material from other courses in preparing dentists to manage medical emergencies. Students will gain experience in the clinical application of nitrous oxide:oxygen. After formal instruction is completed, students may administer nitrous oxide:oxygen or oral sedation to their own patients in the clinic. Students will also write anaesthesia consultations for their patients in the clinic.

Texts: Sedation, A Guide to Patient Management, Malamed, 4th ed. 2003 (required)
Medical Emergencies in the Dental Office, 6th ed., S.F.Malamed, Mosby Elsevier, 2007 (recommended).
Dental Treatment for the Medically Compromised Patient, Little and Falace (recommended)
Handbook of Nitrous Oxide and Oxygen Sedation, Clark & Brunick, Mosby, 2003 (reference)
D.A. HAAS, STAFF

DEN303H1/DEN453Y1 Endodontics

The knowledge pertaining to endodontic disease and diagnosis, as well as the scope and techniques of endodontic treatment are broadened during lectures given in concomitance with clinical work in the fall of third year. Further pre-clinical experience is acquired through performing endodontic treatment on molars in the winter term of 3rd year and clinical experience is subsequently reinforced on patients.

Texts: Manual of Undergraduate Endodontics, Faculty of Dentistry, University of Toronto (required)
Visual Endodontics & Traumatology - CD-Rom (required)
Dental Pulp, Hargreaves & Goode, Quintessence (reference)
Pathways of Pulp, Cohen & Burns, 8th Edition, C. V. Mosby Company (reference)
Principles & Practice of Endodontics, R. Walton, M. Torabinejad, 3rd edition, W. B. Saunders Co. (reference)
Clinical Endodontics, L. Tronstad, Thieme. (reference)
A. PLAZAS-GARZON, STAFF

DEN308Y1 Community Dentistry

MODULE VII: COMMUNICATION IN DENTAL PRACTICE
This module aims to make students aware of central role played by communication in dental practice. The curriculum will cover: communication and its association with pain, anxiety and therapeutic outcomes; models of the dentist-patient relationship; consultation tasks; common-deficits in communication; barriers to communication; consultation styles; conflicts of perspective, shared understanding.

MODULE VIII: PSYCHOLOGICAL AND BEHAVIOURAL ISSUES IN DENTAL PRACTICE

The aims of this module are to make students aware of common psychological and behavioural problems encountered in dental practice and strategies, based on psychological principles that can be employed to manage these problems. This component covers: dental anxiety, its nature, mode of acquisition and consequences; cognitive factors involved in dental anxiety; diagnostic types; helping the dentally anxious adult accept dental treatment; treating dental anxiety; dental anxiety in childhood; aversive and non-aversive methods of managing the child patient; preparing the child patient; in-operative management techniques.

Texts: D. Locker. Introduction to behavioural science and dentistry. (recommended)

D. LOCKER

DEN312Y1 Medicine

The course starts in January of Second Year and continues until December of the Third Year. The course is designed to provide basic knowledge of common chronic adult medical illnesses. The purpose is to both understand patients' chronic conditions as well as to have an approach to treating patients with chronic medical conditions. The relevance of the illnesses on the practice of dentistry is emphasized throughout the course. There are written tests at the end of the winter and fall term.

Text: Davidson's Principles and Practice of Medicine, 20th Ed. (recommended)

R. WU, STAFF

DEN315Y1 Oral Medicine and Pathology

The lectures cover diseases of the teeth, periodontium, tongue, oral mucosa, salivary glands, jaws, oro-facial deformities and systemic diseases as they affect the mouth and jaws. The pathology, clinical aspects, differential diagnosis and management of these conditions are discussed.

In the laboratory computerized virtual microscopy is used by the students to illustrate the histopathological appearances of the most significant lesions. This is used as an aid in understanding the pathobiology of oral disease.

The seminar periods are used to integrate knowledge of the pathology with oral medicine and to impart a system of diagnosis and treatment based on the understanding of disease. Texts: "Contemporary Oral and Maxillofacial Pathology" Sapp, J. Philip; Eversole, Lewis R., and Wysocki, George P., 2nd ed., Mosby, 2004 (required) "Oral and Maxillofacial Pathology" Neville, Brad W.; Damm, Douglas D.; Allen, Carl M. Bouquot, Jerry E., 3rd ed. 2009. W.B. Saunders Co. (Reference)

R.J. MCCOMB, STAFF

DEN317Y1 Oral Radiology

A series of lectures are presented on the radiologic interpretation of disease processes, which affect the teeth and jaws. A systematic approach to radiographic interpretation is stressed as a basis for recognizing and understanding the effects of various disease processes on hard tissue structures. Case studies are presented in conjunction with the discipline of Oral Diagnosis and Medicine, enabling integration of material in a clinical context. Clinical assignments focus on attaining experience and proficiency in intraoral radiographic techniques. Clinical seminars and case reporting under guidance allow development of skills in basic oral radiographic interpretation.

Texts: As Second Year

R. BARLOW AND S. PERSCHBACHER

DEN318Y1 Oral and Maxillofacial Surgery

The third year course consists of a lecture program and labs. Basic didactic instruction will include orientation to the department, basic surgical principles, instrumentation and techniques of exodontia for both erupted and unerupted teeth, minor dentoalveolar surgery, root resection, pre-prosthetic surgical procedures, and the management of infections and application of various drugs.

A laboratory exercise, in flaps, extractions and suturing, employing a pig mandible will be held to supplement the didactic aspects of exodontia. During orientation, a surgical simulator will be used to simulate basic techniques which, more closely approximates the real life circumstance. Assignment to the Oral Surgery Clinic in March, May or June will begin the students clinical experience.

Texts: Principles of Oral & Maxillofacial Surgery, Dr. Petersom, J.B. Lippincott

Basic Principles of Oral & Maxillofacial Surgery, Manual. Dr. H. Holmes (3rd Year Manual supplied

H. HOLMES, STAFF

DEN322Y1/ DEN365Y1 Orthodontics

The Third Year of studies includes lectures, clinical seminars and clinical practice designed to teach the student the more advanced diagnostic procedures important in the treatment planning of orthodontic abnormalities. The final written examination in Theoretical Orthodontics is conducted at the end of this course.

Text: As in second year;

ORTHODONTIC DISCIPLINE STAFF

DEN323Y1/DEN368Y1 Paediatric Dentistry

A series of lectures and seminars are presented on dentistry for children that include behaviour

management, infant care, diagnosis and treatment planning, management of early childhood caries, space management, paediatric dental emergencies and trauma, paediatric oral surgery and oral pathology, and applied paediatric medicine. The intent of the course is to provide the student with the knowledge and skills required to provide basic dental care to children in a family practice setting. The clinical phase of Paediatric Dentistry is developed in a comprehensive manner during third year, stressing total patient care in the Children's Clinic. The students also rotate to the City of Toronto Public Dental Health Clinic, Toronto Rehabilitation Institute, and the Mt. Sinai Hospital for a portion of their clinical training. Students are required to attend all sessions to advance into 4th year, but a grade will only be given in Clinical Paedo at the end of 4th year. Texts: Paediatric Dentistry Manual, 9th ed., (required) Paediatric Dentistry: Infancy Through Adolescence, J. Pinkham et al, 3rd edition, Saunders 1999 (reference) M. SIGAL, P. ANDREWS, B. SALTZMAN

DEN324Y1/DEN371Y1 Periodontics

The main objective of third year Periodontics is to present a more detailed program on diagnosis, rationale, and delivery of periodontal therapy for a wide range of periodontal conditions, building on the basic knowledge and instrumentation skills learned in the first two years. The program consists of didactic, preclinical, and clinical elements. The didactic program consists of a series of lectures and seminars on periodontal therapy, including surgical therapies. These are integrated with preclinical sessions. Care of clinical patients is continued within a framework of clinical sessions under close supervision. At the completion of the year, students should possess the knowledge, motivation and clinical acuity to diagnose most periodontal conditions and to establish treatment plans for uncomplicated cases. They should have the knowledge needed to treat mild to moderate forms of periodontal diseases by combining sanative, antimicrobial and surgical modes of therapy and should be ready to enter an educational phase in which they can readily integrate their knowledge and skill in Periodontics with that learned in other disciplines. Texts: As in second year plus Periodontics: Medicine, Surgery, and Implants 2004, Rose, Mealey and Genco (reference) Clinical Periodontology and Implant Dentistry, 5th edition, 2008 Lindhe, Karring, Lang (reference) J. LAI, STAFF

DEN327H1 Pharmacology

The objective of this course is to provide applied knowledge of clinical pharmacology and therapeutics in dental practice. The topics covered include analgesics, anti-infectives, drugs used in medical emergencies and natural products. As well, the use of drugs for specific patient situations such as in the elderly, pregnancy and lactation, cardiovascular disease, and the immunocompromised, is also included. D.A. HAAS, H. GRAD, STAFF

DEN333Y1/DEN377Y1 Prosthodontics

This course consists of 2 modules. In the fall term, lectures and related readings outline the changes associated with tooth loss, the management of the edentulous patient, and how osseointegration has expanded the benefits we can provide for our patients. Class projects allow skills development and assessment. Each project has independent self evaluation to develop judgment of clinical procedures. Knowledge and comprehension are assessed with term tests and a final exam. Students use pre-clinical manikin simulation, and student/operator pairs projects to appreciate and develop their skills in edentulous and implant impressions, jaw registrations, tooth shade and mold selection, and custom tooth arrangement to the point of a manikin simulated wax-up of a complete maxillary denture and an implant supported mandibular overdenture. The second year principles of fixed partial denture prostheses are rehearsed with abutment preparations and temporization of anterior and posterior partially edentulous manikins, and a practical pre-clinical session prior to clinic patients. In the winter term, associated Prosthodontic topics and more comprehensive treatment planning are provided in lectures, related readings, and seminars of Comprehensive Care Program evaluation and treatment planning formats. Further principles of prosthetic designs and treatment planning are presented via laboratory and computer guided simulations. Immediately prior to clinical patient care, student/operator pairs projects rehearse the skills needed for patient impressions with concepts of border molding procedures. Texts: As in DEN277Y1 plus Teaching material located on Intranet: [https://sp.dentistry.utoronto.ca/prostho/3rdyear/Treatment of Edentulous Patients](https://sp.dentistry.utoronto.ca/prostho/3rdyear/Treatment%20of%20Edentulous%20Patients). McCord JF, Smith P, Grey N (eds.), Churchill Livingstone, 2004. (required) Clinical and Laboratory Manual of Implant Overdentures. Shafie HR (ed.), Blackwell Publishing, 2007 (reference) Removable Prosthodontic Techniques. Sowter JB.(ed.), 2nd ed., U North Carolina Press, 1986

(reference)

A. FENTON, H. ALKUMRU, A. JOKSTAD, STAFF

DEN336Y1/DEN380Y1 Restorative Dentistry

The clinical course takes place within the Comprehensive Care Program. The Fall Term provides close supervision for the transition from preclinical operative to clinical implementation of basic direct restorative procedures. The fundamental principles and methods for restoring teeth to structural, functional and esthetic acceptability, learned thus far in a preclinical setting, are emphasized as the students acquire the clinical skills necessary to treat individual patients. Patient management skills and student confidence in restorative dentistry are developed during this program. Students are evaluated on a daily basis using self-assessment forms and/or computer grading, and work towards achieving clinical competency which is evaluated in the form of competency tests. Lectures are designed to highlight clinical aspects of restorative materials and procedures. The final written examination comprehensively covers all material taught over the three years including lectures, reading assignments and the knowledge gained from clinical practice.

Texts:

Third Year Clinic Manual* (required)

General Restorative Dentistry Clinic Manual* (required)

Fundamentals of Operative Dentistry- A Contemporary Approach, Summitt JB, Robbins JW, and Schwartz RS. 2nd Edition. Quintessence Publishing Co., 2000. (reference)

Fundamental of Fixed Prosthodontics, Shillingburg HT et al. #rd edition. Quintessence Publishing Co., 1997. (reference)

Philip's Science of Dental Materials, Anusavice KJ. 10th edition. WB Saunders Cp, 1996. (reference)

L. TAM, STAFF

DEN356Y1 Oral Diagnosis and Oral Medicine

This course contains two parts as outlined below and will be examined by a series of tests (3 tests to give 50% of the mark) and will also include grading of approximately 24 clinical sessions (50%).

The course starts in the Second Year post examination period with a series of lectures, seminars and clinical sessions to teach students a system of diagnosis and initial treatment planning of oral and dental disease. This will include the evaluation and management of healthy patients as well as of those with a wide variety of co-existing medical disorders. Students will learn the impact of medical conditions on treatment planning and provision of

dental care. There will be two seminars involving Radiology staff to ensure application of correct radiographic interpretation to the diagnostic process.

During the whole of Third Year, students will attend the Oral Diagnosis and Emergency Clinics in order to obtain practical experience in the evaluation and management of a large and varied group of patients. They will also learn how to request and evaluate medical information from their patient's physicians or hospitals. In the Faculty Emergency Clinic, the students learn to diagnose and manage a wide range of dental emergencies. The clinical sessions provide practical application of the material covered in the lecture/seminar component of the course and prepare students for the more detailed treatment planning sessions involved in the provision of comprehensive care.

Texts: Dental Management of the Medically Compromised Patient, Little, J. W. and Falace, D. A., C. V. Mosby Co. 2007 (required)

Oral Diagnosis Manual

Cardiovascular Supplemental Manual

C. KILMARTIN, STAFF

DEN374Y Preventive Dentistry

The didactic program concentrates on the practical aspects of incorporating preventive dentistry into private dental practice. Seminar sessions are devoted to patient motivation and preventive diet counselling, to a systematic approach to preventive care and to the use of auxiliaries in preventive practice. The student utilizes preventive principles and techniques for assigned clinic patients. Texts: Primary Preventive Dentistry, Harris and Christen (reference)

Successful Preventive Dental Practices, Barkley (reference)

A Textbook of Preventive Dentistry, Caldwell and Stallard (reference)

I.S. HUSAIN, STAFF

DEN383H1 Biological Basis of Oral Health and Disease - Practical Applications I

This course is designed to introduce novel clinical procedures, technologies and common, current, clinically important laboratory tests to the preclinical student. Equal emphasis will be placed on the understanding of the biological basis underlying the new technologies and physiological laboratory tests. This is a credit, non-credit based course.

STAFF

DEN403Y1 Case-Based Learning

A series of eight tutorials will be taken by students during the Third Year post-exam period. The problems presented may be from clinical cases or from other sources. Learning occurs in

small groups with emphasis on identification of key issues, researching the medical and dental literature and critical analysis of selected information. Discussion groups of students exchange information and reach evidenced-based conclusions. This course is continued from spring term of Third year into Fourth Year.

H. GRAD, STAFF

DEN450Y1 Comprehensive Care Program

This multidisciplinary clinical program begins in the Fall Term of third year and continues throughout fourth year in order to provide a "total patient care experience" from initial patient presentation to treatment completion for the majority of assigned patients. The third year portion of the clinical Comprehensive Care Program (CCP) introduces the student to multidisciplinary treatment planning and the concept of appropriately phased patient care. Building upon the teaching provided by the clinical disciplines in the pre-clinical programs, students participate in the evaluation, planning and management of the comprehensive treatment needs for their assigned adult patients. Comprehensive Care Program Coordinators assist and educate students in the assessment, diagnosis and sequencing of patient care through comprehensive treatment planning sessions designed to ensure case understanding, rational treatment decisions and an appropriate treatment plan. Significant emphasis is placed in third year CCP on the importance of optimal oral disease control and patient-specific prevention. Following the development of a treatment plan, the multidisciplinary treatment needs of the patient are carried out under the supervision and teaching of clinical instructors from the periodontology, prosthodontics and restorative disciplines. |

Text: Treatment Planning in Dentistry. Edit. Stefanac & Nesbitt. Mosby Inc. 2007 (reference)
D. MCCOMB, L. TAM, G. LIN, STAFF

DEN459Y1 Oral Radiology

This course in clinical oral radiology spans Second, Third and Fourth Year. In the third year, students are introduced to intraoral radiologic techniques and apply these skills to patients in the clinic. Patient radiography is film-based but students use digital radiographic techniques in a laboratory exercise. Students are also introduced to radiographic interpretation by reporting on patient cases. Three clinical competency tests are given which form part of the final assessment in this course in Fourth Year.

R. BARLOW, S. PERSCHBACHER, STAFF

Fourth Year

In the Fourth Year the student applies the basic knowledge and techniques already acquired, to gain further clinical experience and familiarity with more advanced treatment services. To prepare students for entry into the profession as general practitioners, emphasis is placed upon integration of the various disciplines and overall management of patient treatment. In addition to their work in the Faculty's Clinics, students participate in elective programs, clinical conferences and hospital-based experiences.

Clinical Practice

See Third Year description.

Electives

Electives are offered to senior students in various disciplines each year. The subjects presented may change from year to year. Currently there are electives in Restorative Dentistry, Anaesthesia, Preventive Dentistry and Radiology.

Time is set aside from the curriculum to afford students a broader in-depth discussion of a subject(s) in which they may have a particular interest. These programs are offered to the entire class on a first come basis and some have limited enrolment. In Paediatric Dentistry, the elective is a "selective" since interested students are selected to attend the Moose Factory Dental Project that deals with the delivery of dental treatment to Native Peoples in the James Bay area from a hospital base.

DEN400H1 Anaesthesia

This course consists of seminars and clinical experience in anaesthesia as it applies to dentistry. The seminars review the protocol and applied aspects of handling medical emergencies. Students practise oxygen administration, intramuscular injection and venipuncture techniques on each other. The clinical component is carried out throughout the academic year and involves writing anaesthesia consultations for their patients, administering nitrous oxide:oxygen conscious sedation and taking a competency test for the latter.

Text: Medical Emergencies in the Dental Office, 6th ed., S.F.Malamed, Mosby Elsevier, 2007 (recommended).

D.A. HAAS, J. BHALLA, STAFF

DEN401Y1 Advances in Dental Science

These presentations will cover recent advances and emerging issues in dental science. A multi-disciplinary format will be used whenever possible. The subject matter will change annually.

STAFF OF THE FACULTY OF DENTISTRY

DEN403Y1 Case-Based Learning

The tutorials started in Third Year continue throughout Fourth Year with one three-hour tutorial each week. Problems of increasing complexity are introduced as the course progresses. Learning occurs in small groups with emphasis on identification of key issues, researching the medical and dental literature and critical analysis of selected information. Discussion groups of students exchange information and reach evidenced-based conclusions.

H. GRAD, STAFF

DEN406Y1 Ethics, Jurisprudence and Practice Administration

This course has three components as follows:

ETHICS

The lectures in Ethics discuss the currently accepted standards of conduct and behaviour for members of the dental profession. Subjects covered include the basis of the Code of Ethics in the professions. Examples of situations in practice that require judgment of an ethical nature are presented.

P. ALLATT, STAFF IN COMMUNITY DENTISTRY

JURISPRUDENCE

The information contained in the lectures in Jurisprudence is based on the legal matters bearing on the practice of dentistry in Ontario that are essential for dentists to be able to recognize, to know, to explain and to be able to act upon appropriately. Subjects covered in the course include the following: delegated legislation; professional relationships; dental malpractice; professional misconduct; regulating the dental profession; organization of dentistry in Canada; statutes that impact on dentistry; associate arrangements; dental office staff; and practice procedures (advisories, standards and guidelines).

Text: RCDSO Jurisprudence and Ethics Guide
D.J. MCFARLANE, RCDSO

PRACTICE ADMINISTRATION

This is an interactive learning series beginning in the Spring Term of Second Year and continuing through winter and spring terms of Third year into Fourth Year, and is designed to provide the student with an understanding of the management and administration of a dental practice. Guest lecturers discuss relevant topics such as financing, accounting, taxation, leases, contracts, partnerships and associateships so that students are informed about factors to be considered when entering private practice.

Texts: Medical: Dental Office Practice Management, White and Louis, CCH Canadian Limited (recommended)
A Primer on Dental Practice Management,

Gaskins, Reston Publishing Co. (recommended)
Dental Practice Management Manual, Canadian Dental Association (recommended)

Burnout, Freudemberger and Richelson, Doubleday and Company Inc. (recommended)

L. VALENZANO, STAFF

DEN450Y1/DEN451Y1 Comprehensive Care Program

This multidisciplinary clinical program begins in third year and continues throughout fourth year in order to provide continuing care for all assigned patients and to amplify the student experience in provision of optimal comprehensive care.

Students participate in the assessment, diagnosis, treatment planning and provision or management of the treatment needs for all patients for whom they are designated primary providers. The process begins in the diagnostic clinics and continues in the comprehensive care clinic for the same student and patient wherever possible. The emphasis is on providing optimal patient care which addresses the oral health needs of the patient and takes into consideration the patient's wishes. Emphasis is placed on provision of optimal disease control and prevention for all patients prior to more extensive rehabilitation. Major program goals are a) the completion of treatment for all assigned patients and b) adequate preparation of students for general practice.

Students are assigned to a Clinical Comprehensive Care Groups each with designated Coordinators, specialist consultants and clinical instructors. Central to the program objectives is the development of a rational treatment plan for an informed patient. Treatment planning is carried out by group Coordinators and the process ensues careful patient assessment and appropriate specialist consultations. The program emphasizes the educational development of treatment planning, critical thinking and decision-making skills. Patient-Based-Learning (PBL) didactic seminars are conducted in small student groups throughout the program, towards the same educational objectives and sharing the resource of CCP patients.

The Comprehensive Care Program culminates in case-based comprehensive didactic examinations for adult patient as well as a final oral examination. Conducted by teams of academic staff, the oral examination evaluates the student's knowledge, clinical judgment, reasoning processes and ability to plan appropriate comprehensive patient dental care.
Text: Treatment Planning in Dentistry. Edit. Stefanac & Nesbit. Mosby Inc. 2007 (reference)
D. MCCOMB, STAFF

DEN453Y1 Endodontics

This course offers the student didactic and clinical components. The didactic component is designed to expand on the knowledge acquired in 3rd year about the nature, diagnosis and treatment of endodontic disease. It includes nine lectures given during the winter term of 4th year, focused on advanced aspects of endodontic disease management. The clinical component is a continuation of the program started in 3rd year. It provides the student opportunities to acquire the skills and experience in providing basic endodontic treatments in the context of comprehensive dental care.

Texts:

Manual of Endodontics – Faculty of Dentistry, University of Toronto (required)
Pathways of the Pulp, Cohen & Hargreaves, 9th ed, C.V. Mosby Company 2005 (reference)
Endodontology, Seltzer, 2nd ed., Lea & Febiger (reference)
Seltzer and Bender's Dental Pulp. Hargreaves, Kenneth M./Goodis, Harold E. Quintessence Int, 2002 (reference)
Problem Solving in Endodontics, Thom C. Dumsha; James L. Gutmann, Mosby. 2005 (reference)
Principles and Practice of Endodontics. R. Walton M. Torabinejad, 4th ed, W.B. Saunders Company 2008 (reference)
Clinical Endodontics, Tronstand, Thieme 2002 (reference)
Endodontic Therapy, Weine 6th ed Mosby, 2003 (reference)

ENDODONTIC DISCIPLINE STAFF

DEN456Y1 Oral Diagnosis and Oral Medicine

Students continue to attend the Oral Diagnosis and Emergency Clinics for further experience in the management, evaluation and treatment planning of patients, with continued emphasis on assessment and treatment planning of patients with special care or medical problems. Fourth Year students attend the Emergency Clinic throughout the year. This experience will be assessed as part of the Oral and Comprehensive Care Fourth Year Final Examinations.

Texts: As Third Year

C. KILMARTIN, STAFF

DEN459Y1 Oral Radiology

The objectives of fourth year radiology clinical assignments are for students to apply sound decision-making skills in prescription of radiographs, to become proficient in all intraoral radiographic techniques and to understand and apply the principles of image formation in panoramics. Case reporting allows continued development of skills in basic and more advanced oral radiographic interpretation.

Texts: As Second Year

R. BARLOW, S. PERSCHBACHER, STAFF

DEN462Y1 Oral and Maxillofacial Surgery

The Fourth Year program consists of a series of lectures in the advanced aspects of Oral and Maxillofacial Surgery such as trauma, surgical orthodontic treatment and Oral and Maxillofacial Surgery reconstruction etc. The aim of this program is to provide the students with a basic understanding of and the diagnostic capability to approach these more advanced aspects, of surgery which customarily are dealt with by Oral and Maxillofacial Surgeons. The clinical part of this program is the continuation of assignments to the department which, covered in 3rd Year, as well as exposure to major oral surgery that may occur during the student's hospital assignments. An essay on an assignment topic, due in December is also required. Texts: As third Year
H.I. HOLMES, STAFF

DEN465Y1 Orthodontics

The work includes lectures, clinical seminars and clinical instruction for the diagnosis, treatment planning and clinical interception of malocclusions. The final clinical examinations are conducted at the end of this course.

Texts: As Second Year

ORTHODONTIC DISCIPLINE STAFF

DEN468Y1 Paediatric Dentistry

Additional emphasis in clinical Paediatric Dentistry is given and advanced treatments during the primary, mixed and permanent dentition periods, including management of dental abnormalities and injuries to teeth, are emphasized both in the Faculty clinic and a Community Dental Clinic in Toronto. Students are encouraged to treat children under conscious sedation and to see multiple patients in each of their sessions. In addition, students will have a required assignment to the Paediatric Dentistry Surgicentre. The dental care of persons with special needs is provided through affiliated hospitals. Various members of the department give seminars in advanced Paediatric Dentistry throughout the year. Elective programs in conjunction with the Hospital for Sick Children, Mount Sinai Hospital, Toronto Rehabilitation Institute and Weeneebayko General Hospital are available. Director, Mount Sinai Dental Program for Persons with Disabilities is Professor M. Sigal.

Texts: As Third Year

M. SIGAL, STAFF

DEN471Y1 Periodontics

The major objective of fourth year Periodontics is to graduate general practitioners that combine the knowledge, judgement, skill and motivation to

serve individual patients and the community's needs in the prevention, recognition, and treatment of periodontal diseases. In the Comprehensive Care clinics in fourth year, emphasis is placed on integrating periodontal diagnosis and treatment within the overall oral health care system. Students are challenged to learn how Periodontics influences the management of both uncomplicated and complex cases. Discrimination of cases treatable in general practice and those, which should be treated through co-operation between generalist and specialist, is stressed. Each student also has assignments to assist in the graduate clinic. Texts: As in second and third year.

J. LAI, STAFF

DEN474Y1 Preventive Dentistry

The lectures consider strategies for identifying individuals at high risk of coronal and root surface caries and explore how preventive care should be individualized for such patients. Cases, which present other challenging preventive problems, are also presented and discussed.

A clinical assignment requires that students evaluate the risk of dental disease in selected clinic patients and provide an appropriate level of preventive care for each.

H. LIMEBACK, STAFF

DEN477Y1 Prosthodontics

This course consists of a lecture series in the fall term and assignments in the clinic in the fall and spring terms.

The didactic course focuses on planning and integrating removable and fixed prosthodontic interventions within a continuum of comprehensive patient care. The major theme of the course is to emphasize that all prosthodontic interventions include a biological cost – although also provide benefits. Moreover, that (1) the costs can be small and the benefits large often with a minimalist approach – and vice versa, and (2) that exact information relating to the patient's oral and medical condition and history – evidence based when possible – is required to allow the patient to make an informed decision consistent with his or her treatment needs and preferences.

The clinical assignments form a part of the clinical comprehensive program that is undertaken throughout the year. The clinical instructors will ensure that the prior knowledge acquired in the first 3 years of studying is toward evidence-based decision making regarding prosthodontic management of patients with partial and complete edentulous jaws. The minimum clinical core experience for the students are: (i) 1 complete (or immediate complete) removable prosthesis, (ii) 2 removable partial prostheses, (iii) 1 fixed partial prosthesis

or 1 implant supported prosthesis and (iv) 1 relined or implant-retrofitted or repair of a removable prosthesis.

Texts: As in DEN277Y1 and DEN333Y1/DEN377Y1 plus: Teaching material located on Intranet:

<https://sp.dentistry.utoronto.ca/prostho/4thyear/>
Orofacial Pain – From Basic Science to Clinical Management. Sessle BJ, Lavigne G J, Lund JP, Dubner R (eds.), 2nd ed. Quintessence, 2008. (reference)

Osseointegration and Dental Implants. Jokstad A (ed.), Blackwell Publishing, 2009 (reference)
T. DAO, A. JOKSTAD, STAFF

DEN480Y1 Restorative Dentistry

The program consists of the restorative clinical care of Comprehensive Care Program patients. The aim is to broaden the student's clinical experience and to further develop and refine his/her operative skills and diagnostic acumen. More advanced treatments are carried out and alternative forms of treatment are discussed. Emphasis is also placed on integration of restorative care with the other clinical disciplines. Minimum treatment requirements are established to ensure adequate clinical experience has been provided followed by clinical competency testing.

Lectures amplify and broaden the students' didactic knowledge with emphasis on recent developments in Restorative materials and techniques. Texts: As third year, plus Restorative Clinic Manual (required) Fundamentals of Fixed Prosthodontics, Shillingberg et al., 3rd Edition, Quintessence Pub. Co. 1997 (reference)

Esthetics in Dentistry Vol 1 2nd edition. R.E. Goldstein. BC Decker 1998 (Recommended). Esthetic Dentistry and Ceramic Restorations. B. Touati, P. Miara & D. Nathanson. Martin Dunitz, 1999. (Recommended)
D. MCCOMB, O. EL-MOWAFY, STAFF

DEN483H1 Biological Basis of Oral Health and Disease - Practical Applications II

This course is designed to introduce novel clinical procedures, technologies and common, current, clinically important laboratory tests to the preclinical student. Equal emphasis will be placed on the understanding of the biological basis underlying the new technologies and physiological laboratory tests. This is a credit, non-credit based course.

STAFF