

# DENTAL HYGIENE (DHY)

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## **DHY 100 - Introduction to Dental Hygiene Fundamentals (1 Credit)**

*0 lecture, 3 lab, 3 total contact hours*

Introduces the dental hygiene profession including the role of the dental hygienist as a member of the dental health care team, professionalism, ethics related to the dental setting, evidence-based decision-making and inter-professional collaboration. Dental terminology, tooth identification and numbering, prevention of disease transmission including basic infection control and sterilization techniques, proper positioning and ergonomics, and initial instrument basics are emphasized. Strategies and skills for student success in the dental hygiene program will be addressed. Prerequisite: Admission into the Dental Hygiene program.

**Typically offered:** Summer

## **DHY 101 - Dental Hygiene Principles I (2 Credits)**

*2 lecture, 0 lab, 2 total contact hours*

Introduces the theory and scientific principles underlying the practice of dental hygiene. Emphasizes the clinical procedures and techniques for delivery of comprehensive patient care. Focuses on prevention of disease transmission; body mechanics; instrument classification and design; fundamentals of hand instrumentation; removal of biofilm, deposits, and extrinsic stain; patient communication and personal control of dental disease; documentation of patient care; and the electronic patient record. Prerequisite: DHY 100 with a grade of C or better and admission into the Dental Hygiene Program. Corequisite: DHY 105 and DHY 106.

**Typically offered:** Fall

## **DHY 105 - Dental Hygiene Preclinic Lab (2 Credits)**

*0 lecture, 6 lab, 6 total contact hours*

Integrates the scientific and clinical principles underlying the practice of dental hygiene in a pre-clinical setting. Focuses on the clinical application of the dental hygiene process of care. Clinical assessment procedures and instrumentation techniques are practiced on mannequins and student partners. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 100 with grade of C or better and Admission into the Dental Hygiene Program. Corequisite: DHY 101 and DHY 106.

**Typically offered:** Fall

## **DHY 106 - Oral Health Assessment (1 Credit)**

*1 lecture, 0 lab, 1 total contact hours*

Introduces components of the dental hygiene process of care to include medical/dental history; common medical conditions; vital signs; medications and pharmacological information; head and neck examination; oral, dental and periodontal examinations; communication for assessment; and medico-legal documentation. Patient assessment skills will be practiced in the pre-clinical laboratory with fellow students as patients. Prepares the student for the assessment components of patient care in subsequent clinical courses. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program. Corequisite: DHY 101 and DHY 105.

**Typically offered:** Fall

## **DHY 108 - Medical Emergencies In Dentistry (0.5 Credits)**

*.5 lecture, 0 lab, .5 total contact hours*

Introduces basic understanding of disease states that may trigger medical emergencies and the means to prevent these emergencies through careful preoperative assessment and treatment modification. Studies common medical emergencies that may occur during delivery of dental care. Emphasis on methods to prevent emergencies from occurring and procedures to manage emergency situations. Reviews the management protocols for all medical emergencies occurring in the dental office environment. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program.

**Typically offered:** Fall

## **DHY 111 - Dental Radiology I (2 Credits)**

*2 lecture, 0 lab, 2 total contact hours*

Provides theory in radiation physics, the mechanisms of x-ray generation, the effects of exposure factors on image quality, radiation safety principles, and the biological effects of ionizing radiation. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program. Corequisite: DHY 113.

**Typically offered:** Fall

## **DHY 113 - Dental Radiology Laboratory (1 Credit)**

*0 lecture, 3 lab, 3 total contact hours*

Introduces techniques of dental radiography. Intraoral digital exposure techniques, identification and correction of technique errors and introduction to image interpretation are emphasized. Practical experience provided on mannequins and selected patients with emphasis on implementation of principles of radiation safety and protection. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program. Corequisite: DHY 111.

**Typically offered:** Fall

## **DHY 116 - Periodontology I (1 Credit)**

*1 lecture, 0 lab, 1 total contact hours*

Examines the anatomy and physiology of periodontium, correlating basic sciences with the clinical aspects of periodontal disease. Introduces the periodontium in health, oral biofilms, clinical features of the gingiva and progression of periodontal disease. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program.

**Typically offered:** Fall

## **DHY 119 - Oral Health Management of Special Needs Populations (1 Credit)**

*1 lecture, 0 lab, 1 total contact hours*

Introduces characteristics and oral health management needs of individuals and populations with special needs including patients with systemic/medical, physical, psychological, developmental, intellectual or social conditions that may influence delivery of dental services. Provides a framework of knowledge about factors that affect the management of the special needs dental hygiene patient. Descriptions of diseases or conditions, incidence, prevalence, etiology, clinical manifestations, medical treatment, oral manifestations, dental management considerations, and modifications of comprehensive dental hygiene care are emphasized. Includes the roles of interprofessional health care teams. Prerequisite: DHY 121, DHY 123, and DHY 125 with grades of C or better.

**Typically offered:** Summer

**DHY 121 - Dental Hygiene Principles II (1 Credit)***1 lecture, 0 lab, 1 total contact hours*

Continues focus on the clinical procedures and techniques with emphasis on assessing, planning, implementing and evaluating the delivery of comprehensive patient care for diverse patient populations. Presents current theoretical perspectives in which to interpret and expand dental hygiene care. Develops problem solving abilities and critical thinking skills as they relate to the provision of dental hygiene care. Provides students with a more insightful view of the role of the dental hygienist in the delivery of comprehensive patient care. Prerequisite: DHY 101, DHY 105, and DHY 106 with grades of C or better. Corequisite: DHY 123 and DHY 125.

**Typically offered:** Spring**DHY 123 - Dental Hygiene Clinic I (2 Credits)***0 lecture, 8 lab, 8 total contact hours*

Introduces dental hygiene practice providing patient care in the clinic setting. Provides a transition from the pre-clinic setting to provision of patient care with exposure to the culture of clinical dental hygiene. Emphasis on the dental hygiene process of care and instrumentation techniques. Comprehensive care provided for simple patient classifications. Students begin to apply knowledge, critical thinking, and clinical skills introduced in previously completed dental hygiene courses. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 101, DHY 105, and DHY 106 with grades of C or better. Corequisite: DHY 121 and DHY 125.

**Typically offered:** Spring**DHY 125 - Oral Health Strategies (1 Credit)***1 lecture, 0 lab, 1 total contact hours*

Introduces health behavior theories and concepts used in oral health instruction and patient education. Emphasis on prevention of dental diseases through effective patient oral health education; motivational interviewing; oral infection control and biofilm removal techniques; nutritional counseling; and smoking cessation intervention. Continues focus on the dental hygiene process of care including an awareness of cultural diversity and human differences. Reviews cultural competence; communication theory; development of patient/clinician relationships; and patient motivation with particular attention to psychological, social, economic, cultural and life stage factors. Prerequisite: DHY 101, DHY 105, and DHY 106 with grades of C or better. Corequisite: DHY 121 and DHY 123.

**Typically offered:** Spring**DHY 130 - Nutrition for Oral Health (1 Credit)***1 lecture, 0 lab, 1 total contact hours*

Explores the interrelationship between nutrition and oral health. Studies the role of diet in the development and integrity of the oral cavity and progression of oral diseases. Emphasis on nutritional screening of dental hygiene patients as a component of comprehensive oral care. Prerequisite: DHY 250, DHY 251 and DHY 253 with grades of C or better.

**Typically offered:** Spring**DHY 151 - Dental Hygiene Principles III (1 Credit)***1 lecture, 0 lab, 1 total contact hours*

Continues the study of the dental hygiene process of care. Focuses on the clinical procedures and techniques with emphasis on comprehensive care planning and implementation. Further develops clinical decision-making, problem solving and critical thinking skills as they relate to the provision of dental hygiene care. Prerequisite: DHY 121 and DHY 123 with grades of C or better. Corequisite: DHY 153.

**Typically offered:** Summer**DHY 153 - Dental Hygiene Clinic II (2 Credits)***0 lecture, 8 lab, 8 total contact hours*

Continues dental hygiene clinical practice providing comprehensive patient care for diverse patient populations. Emphasis on assessing, planning and implementing comprehensive dental hygiene care for patients with simple to complex needs, with an emphasis on moderate cases. Students gain experience in the practical application of the dental hygiene process of care including introduction of advanced instrumentation and debridement techniques. Provides further opportunity to apply knowledge, critical thinking, and clinical skills acquired in previously completed dental hygiene courses. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 121 and DHY 123 with grades of C or better. Corequisite: DHY 151.

**Typically offered:** Summer**DHY 159 - Head and Neck Anatomy (3 Credits)***3 lecture, 3 total contact hours*

Introduces anatomy of the head and neck regions with special emphasis on the human dentition. Skeletal, muscular, glandular, circulatory, nervous and epithelial structures are considered in detail. Also includes introductory material on human histology and orofacial embryology. NOTE: Students must be admitted into the DHY program to register for this course. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program.

**Typically offered:** Fall**DHY 161 - Oral and Dental Anatomy (2 Credits)***1 lecture, 2 lab, 3 total contact hours*

Introduces the student to terms and anatomic structures of the oral cavity including a detailed study of crown and root morphology of both primary and permanent dentitions. NOTE: Students must be admitted into the DHY program to register for this course.

**Typically offered:** Fall**DHY 190 - General and Oral Pathology (2 Credits)***2 lecture, 2 total contact hours*

Studies fundamentals of gross pathology and general pathological processes. Provides foundational knowledge related to the reaction of cells and tissues to injury and how diseases arise. Pathology terminology is introduced. Overview of basic disease processes are studied with specific emphasis on pathogenesis and clinical features of diseases of the orofacial complex. Correlates clinical manifestations of disease with dental hygiene practice focusing on recognizing deviations from normal, differential diagnosis, documentation, and referral. Includes discussion of the role of the dental hygienist in early detection, education and referral of lesions of the head and neck regions. Prerequisite: DHY 111, DHY 113, DHY 159 and DHY 161 with grades of C or better.

**Typically offered:** Spring**DHY 200 - Periodontology II (1 Credit)***1 lecture, 0 lab, 1 total contact hours*

Builds on the foundational knowledge presented in DHY 116 (Periodontology I). Focuses on best practices in periodontics; AAP classification system; etiology and pathogenesis of gingival and periodontal diseases including microbiological, host response, local and systemic risk factors, and clinical assessment of the periodontium. Emphasizes the clinical application of current theory. Prerequisite: DHY 101, DHY 105, DHY 106, and DHY 116 with grades of C or better.

**Typically offered:** Spring

**DHY 201 - Ethics, Jurisprudence and Transition to Professional Practice (2 Credits)***2 lecture, 2 total contact hours*

Introduces basic concepts of ethics, jurisprudence and professionalism. Examines the ethical and legal principles guiding the decision making and practice of dentistry and dental hygiene. Systems of ethical decision-making are applied in the context of oral health care and interprofessional practice, examining ethical issues and dilemmas in dental hygiene and the dental health care delivery system. Prepares for entry and transition into clinical practice including the roles and responsibilities of the dental hygienist as a member of the oral health care delivery team and the culture and climate of dental hygiene practice. Contemporary and professional issues that impact the current practice of dental hygiene will be explored. The scope of practice and licensure requirements of the dental hygienist will be reviewed. Aspects of dental practice management including appointment scheduling, recall systems, productivity, and patient record management will be addressed. Prerequisite: DHY 250 and DHY 251 with grades of C or better.

**Typically offered:** Spring**DHY 202 - Dental Radiology II (1 Credit)***3 lab, 3 total contact hours*

Continues practice of digital intraoral image capture using photostimulable phosphor plates. Introduces digital intraoral sensor technology and digital extraoral radiography. Continues skill development in interpretation of dental radiographic images with focus on identification of normal, atypical and pathological entities. Radiographic identification and analysis of dental anomalies, dental caries, periodontal disease, and periapical lesions are emphasized. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 101, DHY 105, DHY 111, and DHY 113 with grades of C or better.

**Typically offered:** Spring**DHY 203 - Dental Radiology III (0.5 Credits)***0 lecture, 1.5 lab, 1.5 total contact hours*

Continues DHY 202. Prerequisite: DHY 200, DHY 202, DHY 220, DHY 230, DHY 240 and DHY 250 with grades of C or better.

**Typically offered:** Summer**DHY 205 - Dental Radiology IV (0.5 Credits)***0 lecture, 1.5 lab, 1.5 total contact hours*

Continues practice of digital intraoral and extraoral radiographic image capture. Emphasis on developing proficiency in radiographic exposure technique and interpretation skills. Provides further opportunity to apply knowledge, critical thinking, and clinical skills acquired in previously completed dental hygiene radiographic courses. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 151, DHY 153, and DHY 203 with grades of C or better.

**Typically offered:** Fall**DHY 207 - Dental Radiology V (0.5 Credits)***0 lecture, 1.5 lab, 1.5 total contact hours*

Incorporates all previously acquired knowledge and techniques learned in Dental Radiology I, II, III and IV. Continues practice of digital intraoral and extraoral radiographic image capture and interpretation with emphasis on improving time management and refinement of radiographic skills. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 205, DHY 250, and DHY 251 with grades of C or better.

**Typically offered:** Spring**DHY 220 - Community Oral Health (3 Credits)***2 lecture, 2 lab, 4 total contact hours*

Introduces basic concepts and principles of dental public health, community dental health education, and community program planning as it relates dental hygiene. Topics include oral health trends, epidemiology, dental indices, community water fluoridation, prevention and control of oral diseases in a community, community dental health programs, and cultural competence for the dental health care provider. Review biostatistics and dental scientific literature as it applies to dental public health. Provides opportunities for outreach experiences in a variety of community health settings. Prerequisite: DHY 119, DHY 250, and DHY 251 with grades of C or better.

**Typically offered:** Spring**DHY 230 - Dental Pain and Anxiety Management (1 Credit)***1 lecture, 0 lab, 1 total contact hours*

Introduces the fundamentals of pain management techniques used in dentistry with focus on control of patient's pain and anxiety levels. Introduces basic and current concepts of pain control including local anesthesia and nitrous oxide sedation. Rationale for pain control; neuroanatomy; neurophysiology; pharmacology of local anesthetics and vasoconstrictors; non-injectable and injectable anesthetic agents; local and systemic complications; medical emergencies; patient assessment; and legal considerations will be covered. Prerequisite: DHY 151, DHY 153, DHY 240 with grades of C or better. Corequisite: DHY 232.

**Typically offered:** Fall**DHY 232 - Dental Pain and Anxiety Management Lab (1 Credit)***0 lecture, 2 lab, 2 total contact hours*

Provides instruction in topical and local anesthetic and nitrous oxide sedation techniques. Administration of local anesthesia including maxillary and mandibular field and nerve block injections and nitrous oxide sedation is practiced on student partners. Management of patients' pain and anxiety levels is emphasized. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 151, DHY 153, and DHY 240 with grades of C or better. Corequisite: DHY 230.

**Typically offered:** Fall**DHY 235 - Dental Scientific Literature (1 Credit)***1 lecture, 0 lab, 1 total contact hours*

Introduces principles of the scientific method to enable reading and critical appraisal of dental scientific literature. Emphasis is placed on evidence based literature evaluation, methodologies, types of research and research design. Focuses on developing competency in the use of scientific literature as a part of evidence-based decision-making in patient care and lifelong learning. Critique of oral health literature from peer reviewed journals is practiced. Prerequisite: DHY 116, DHY 151, DHY 153, and DHY 200 with grades of C or better.

**Typically offered:** Fall**DHY 240 - Dental Pharmacology for the Dental Hygienist (2 Credits)***2 lecture, 2 total contact hours*

Examines characteristics of major drug groups, principles of drug actions, and effects on the body. Mechanisms of action, clinical applications, precautions, contraindications, and interactions of drugs, with implications for dental patient management will be discussed. Emphasis is placed on pharmaceutical and therapeutic agents used in dentistry. Prerequisite: DHY 121, DHY 123, and DHY 125 with grades of C or better.

**Typically offered:** Summer

**DHY 250 - Dental Hygiene Principles IV (1 Credit)***1 lecture, 0 lab, 1 total contact hours*

Continues focus on dental hygiene process of care. Introduces advanced and adjunctive procedures which build upon basic concepts and skills learned in previous courses. Knowledge gained is applied in clinical practice. Prerequisite: DHY 151 and DHY 153 with grades of C or better. Corequisite: DHY 251.

**Typically offered:** Fall**DHY 251 - Dental Hygiene Clinic III (3 Credits)***0 lecture, 12 lab, 12 total contact hours*

Continues dental hygiene clinical practice providing comprehensive patient care for diverse patient populations. Implementation of comprehensive dental hygiene care at a higher level of clinical competence. Emphasis on developing proficiency in advanced periodontal instrumentation skills and pain management techniques with opportunities to provide non-surgical periodontal therapy for complex periodontally involved patients. Clinical skills are strengthened through the application of evidence-based knowledge and best clinical practices. Provides further opportunity to apply knowledge, critical thinking, and clinical skills acquired in previously completed dental hygiene courses. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 151 and DHY 153 with grades of C or better. Corequisite: DHY 250.

**Typically offered:** Fall**DHY 253 - Periodontology III (2 Credits)***2 lecture, 0 lab, 2 total contact hours*

Continues focuses on best practices in periodontics, current concepts in application of evidence based clinical decision making, treatment planning for patients with periodontal disease and delivery of nonsurgical periodontal therapy. Reviews etiology and pathogenesis, host immune response, periodontal classifications, implant maintenance, and risk factors. Introduces chemical agents in periodontal care, periodontal surgical procedures, periodontal maintenance and emergencies. Emphasizes clinical application of current theory. Prerequisite: DHY 116, DHY 151, DHY 153, and DHY 200 with grades of C or better. Corequisite: DHY 255.

**Typically offered:** Fall**DHY 255 - Dental Hygiene Advanced Periodontology Clinic (1 Credit)***0 lecture, 4 lab, 4 total contact hours*

Focuses on application of clinical best practices in periodontics, evidence-based treatment planning and implementation of phase 1 nonsurgical periodontal treatment therapy. Clinical application of advanced clinic techniques and concepts learned in Periodontology I, II and III. Emphasis on delivery of periodontal therapy for complicated periodontal cases and periodontally compromised patients. Prerequisite: DHY 116, DHY 151, DHY 153, and DHY 200 with grades of C or better. Corequisite: DHY 253.

**Typically offered:** Fall**DHY 260 - Dental Hygiene Principles V (1 Credit)***1 lecture, 0 lab, 1 total contact hours*

Synthesis of all areas of dental hygiene building upon the knowledge and skills learned in previous courses. Emphasis on management of complex patient cases. Refines critical thinking, problem-solving and clinical judgment skills related to delivery of comprehensive patient care. Focuses on advanced instrumentation and dental hygiene techniques, emerging topics and procedures in dentistry and dental hygiene. Prepares the student for the transition from student clinician to practitioner. Prerequisite: DHY 250 and DHY 251 with grades of C or better. Corequisite: DHY 262.

**Typically offered:** Spring**DHY 262 - Dental Hygiene Clinic IV (3 Credits)***0 lecture, 12 lab, 12 total contact hours*

Incorporates all previously acquired knowledge and techniques learned in Clinical Dental Hygiene I, II and III. Continues focus on implementation of comprehensive dental hygiene care with emphasis on providing efficient, quality care to prepare the dental hygiene student to transition to professional practice. Management and treatment of patients with moderate to advanced periodontal disease. Emphasis on improving time management and refinement of all clinical skills. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 250 and DHY 251 with grades of C or better. Corequisite: DHY 260.

**Typically offered:** Spring**DHY 269 - Dental Materials for the Dental Hygienist (1 Credit)***1 lecture, 0 lab, 1 total contact hours*

Introduces composition, properties, characteristics, and care of various dental materials used in dentistry to fabricate dental appliances, tooth restorations and in the prevention and treatment of oral disease. Includes the study of the physical, mechanical, chemical and biocompatibility issues of these materials, their relationship to the oral environment, and the rationale for selecting one material over another. Emphasizes the clinical application and management of these materials from the dental hygiene perspective. Prerequisite: DHY 101, DHY 105, DHY 111 and DHY 113 with grades of C or better. Corequisite: DHY 270.

**Typically offered:** Spring**DHY 270 - Dental Materials Laboratory Techniques for the Dental Hygienist (1 Credit)***2 lab, 2 total contact hours*

Introduces the use and manipulation of materials used in dentistry, with an emphasis on the clinical application of materials that relate directly to the functions of the dental hygienist. Emphasizes the clinical application and management of these materials from the dental hygiene perspective. Introduces composition, properties, characteristics and care of various dental materials used in dentistry with emphasis on impressions. Prerequisite: DHY 101, DHY 105, DHY 111 and DHY 113 with grades of C or better. Corequisite: DHY 269.

**Typically offered:** Spring