

DEGREE COMPLETION TRACK

Dental hygienists are licensed health care professionals that specialize in preventing oral health problems and diseases. Dental hygienists with baccalaureate degrees may be employed in community college or university settings as teachers, public health departments or other health care facilities, oral health care businesses, and other similar job opportunities. Salaries vary, depending on the career choice.

The Bachelor of Science Degree Completion program is designed to be completed by a licensed dental hygienist (RDH) who graduated from an ADA/CODA accredited dental hygiene program in the U.S. or Canada. All didactic course work is offered online and may be taken on a part-time schedule. Generally, students who enter this program complete the remaining 30 of 123 hours toward a Bachelor of Science degree. Individual hours may vary and require a full unofficial transcript evaluation by the program director. A maximum of twelve students may be admitted to the program each year. Applications are accepted through a centralized dental hygiene application system found at: <http://www.adea.org/dhcas.aspx> from November – December 31 with the next class beginning early July. For more details review the "Admissions Requirements" section.

Admissions Requirements

The Bachelor of Science (BS) Degree completion may be considered by applicants who are already Registered Dental Hygienists (RDH). This program will allow you to complete a Bachelor of Science degree online.

In addition to the academic admission requirements, non-academic factors may be considered when selecting students for admission.

Required prerequisite program/courses:

1. An active license as a Registered Dental Hygienist in good standing
2. Graduation from an ADA (<http://www.ada.org>)/CODA (<http://www.ada.org/117.aspx>)-accredited dental hygiene program in the U.S. or Canada. (All credits earned in the entry hygiene program will be accepted toward BS requirements)
3. A grade point average (GPA) of at least 2.5 for all college courses taken
4. Completion of the Texas Core Curriculum (http://catalog.uthscsa.edu/generalinformation/generalacademicpolicies/academic_texas_core_curriculum) requirements (42 hours)
5. Completion of 18 hours Program Prerequisites
6. All course requirements for entry into the program are listed at: <http://www.uthscsa.edu/academics/dental/dental-hygiene-program-admissions-prerequisite-course-list>
7. Applicants outside of Texas MUST reside in a participating National Council for State Authorization Reciprocity Agreements NC-SARA state to be accepted into our program. To see if your state participates and get more information, please visit NC-SARA website (<http://nc-sara.org>).

The Texas Core Curriculum and 18 hours of program prerequisites must be completed by the end of the spring semester of the year you are entering. For further information see the Texas General Education Core Web Center. Applicants are encouraged to seek advisement from the program director or college counselor.

Application: Applicants must meet all qualifications and submit all required information by December 31. Transcripts containing fall courses must be submitted by Jan 15. Up to 6 credit hours may be in progress

during the spring semester prior to admittance but must be completed and transcripts submitted by June 1.

Degree Requirements

Dental Hygiene Bachelor of Science degree is awarded at the successful conclusion of the program. Non-Health Science Center graduates wishing to earn a B.S. degree must complete a minimum of 30 semester credit hours of elective courses in the program. Health Science Center graduates (prior to 2005) who wish to earn a B.S. degree must complete from 6-9 elective credit hours.

Sample Plan of Study

Students must complete 30 semester credit hours of elective courses from the list below:

Fall Course Offerings

DENH 3007	Preclinical Teaching Practicum	4
DENH 3015	Public Health Practicum	4
DENH 4018	Introduction to Research	3
DENH 4007	Clinical Administration Practicum	4
DENH 4025	Advanced Periodontics	3
DENH 4103	Health Promotion	3
EMSP 4007	Human Resource Development	3
DENH 4030	Introduction to Professional Writing	1
DENH 4023	Special Topics	1-3
DENH 4027	The Summer Institute In Aging	3
DENH 4029	Dental Hygienist Role in the Management of Elder Abuse	3
DENH 4091	Independent Study	1-3
EMSP 4008	Leadership Development	3

Spring Course Offerings

DENH 3015	Public Health Practicum	4
DENH 3017	Clinical Teaching Practicum	4
DENH 4111	Current Issues In Dental Hygiene	3
DENH 4023	Special Topics	1-3
DENH 4024	Concepts And Practice In Teaching	3
DENH 4028	Public Health Policy	3
DENH 4415	Advanced Public Health Practicum	4
EMSP 3007	Human Diseases	3
DENH 4091	Independent Study	1-3

Program Outcomes:

The Online Bachelor of Science Degree Completion program at the Health Science Center is designed to allow dental hygienists to develop professional skills in communication, critical thinking and problem solving on a flexible educational platform to build the next generation of leaders.

Program Objectives:

The graduating Bachelor of Science Online Degree Completion Dental Hygienist student will:

1. Demonstrate increased professional written communication, critical thinking, and problem solving skills through course work

2. Demonstrate contributions to the body of knowledge or health prevention in the field of dental hygiene or health care

DENH Courses

DENH 3004. Oral Anatomy. 2 Credit Hours.

The oral anatomy course is designed to provide the dental hygiene student with instruction in dental terminology and the anatomy of the teeth. Emphasis is placed on clinical considerations of oral anatomy relevant to dental hygiene practice. Includes one (1) lecture hour and three (3) laboratory hours per week. Course fees: Materials fee \$50.

DENH 3006. Preclinical Dental Hygiene. 2 Credit Hours.

This course is an introduction to instrumentation techniques and basic clinical procedures. The course offers an opportunity to develop competency in fundamental clinical skills necessary to engage in patient treatment. Includes eight (8) clinical hours per week. Course fees: Lab fee \$10 Corequisites: DENH 3023.

DENH 3007. Preclinical Teaching Practicum. 4 Credit Hours.

This course will provide students with an introduction to concepts of preclinical instruction. Instruction will include seminar and laboratory application sessions emphasizing theories of psychomotor skill development; diagnosis of performance problems; provision of feedback; identification of cognitive, psychomotor, and affective behaviors; and faculty calibration. This course requires formal agreement with a participating dental hygiene program prior to the beginning of class. (The didactic portion of this course is delivered through Canvas, Learning Management System) Course Fees: Practicum fee \$10 per hour.

DENH 3015. Public Health Practicum. 4 Credit Hours.

This course is an opportunity to gain experience with oral health care delivery or promotion in a public health area. The course will include planning and execution of a project in the student's individual area of interest. One full day per week requires the Bachelor of Science Completion student to work in a public health setting in San Antonio or in their community. A formal agreement must be established with the participating public health clinic prior to the beginning of class. Course Fees: Lab fee \$10 per hour.

DENH 3017. Clinical Teaching Practicum. 4 Credit Hours.

This course is an opportunity to gain experience with oral health care delivery or promotion in a public health area. The course will include planning and execution of a project in the student's individual area of interest. One full day per week requires the Bachelor of Science Completion student to work in a public health setting in San Antonio or in their community. A formal agreement must be established with the participating public health clinic prior to the beginning of class. Course fees: Practicum fee \$10 per hour.

DENH 3018. Dental Radiography. 3 Credit Hours.

This course is an introduction to scientific principles of oral radiography including essential terminology, the production and absorption of radiation, X-ray unit function, imaging systems, processing, quality assurance, radiation biology, and protection. This course is designed to emphasize radiation health and protection principles and techniques of intraoral and extraoral radiography, exposing, processing, mounting, and critical evaluation of dental radiographs. Laboratory experience and clinical applications are emphasized. Includes two (2) lecture hours and three (3) clinical hours per week. Course fees: Materials fee \$50.

DENH 3019. Preventive Dental Hygiene Theory. 3 Credit Hours.

This course is an introduction to concepts used in oral health instruction and patient education. Included in the course is the etiology of dental disease, plaque control, oral physiotherapy, methodology of oral health instruction, nutritional counseling, and patient motivational techniques. This course is designed to give the student an opportunity to develop skills which are necessary for teaching patients how to achieve optimal oral health and to offer experience in communication skills for interpersonal, professional and patient education interaction. The course will also provide an overview of current counseling recommendations to prevent dental and periodontal disease. Includes two (2) lecture hours and three (3) hours of lab per week.

DENH 3020. Clinic 1 Seminar. 2 Credit Hours.

This course presents current theoretical perspectives in which to interpret and expand dental hygiene care. Topics included within the course are cultural diversity, instrument sharpening, communication skills, ultrasonic scalers, and air abrasive polishers. Other topics related to beginning clinical practice are also incorporated. Includes two (2) lecture hours per week. Corequisites: DENH 3021.

DENH 3021. Clinic 1 Practicum. 3 Credit Hours.

This course is a clinical experience in the practical application of patient education and oral prophylaxis techniques. Emphasis will be placed on comprehensive care for the simple patient classifications, including patient assessment, dental hygiene treatment planning, patient education, instrumentation, preventive therapies, and radiographic skills. Includes twelve (12) clinic hours per week. Course fees: Practicum fee \$10 per hour Lab fee \$30. Corequisites: DENH 3020.

DENH 3022. Dental Materials. 3 Credit Hours.

This course is a study of the materials and adjunct materials used in restorative dentistry and in various other specialty areas of dentistry to fabricate dental appliances and tooth restorations. This course includes lecture and laboratory components designed to help students develop an understanding of the composition, properties, structure, and manipulative variables of dental materials historically used in dentistry as well as the most current materials available. Emphasis is placed on practical, clinical applications of materials; the dental hygienist's role in educating patients regarding these materials; and the techniques for placement of the materials in the oral cavity. Also included is a discussion of the various categories of dental specialties and the materials used by each specialty. Includes two (2) lecture hours and three (3) lab hours per week. Course fees: Materials fee \$50.

DENH 3023. Intro To Clinical Theory. 3 Credit Hours.

This course is an introduction to the theory associated with clinical procedures and patient care. Topics include prevention of disease transmission in the dental setting and patient assessment skills such as vital signs, health history, and oral inspection. An introduction to ethics related to the dental setting is incorporated. Includes three (3) lecture hours per week. Corequisites: DENH 3006.

DENH 3033. Structures Of The Head And Neck. 2 Credit Hours.

The purpose of this course is to give dental hygiene students an appreciation of the anatomical structure of the head and neck region of the human body, which will serve as a foundation of anatomical knowledge that is essential for patient care and useful in understanding function, local pain, anesthesia, and oral pathology. Includes one (1) lecture hour and three (3) lab hours per week.

DENH 3034. Periodontics. 3 Credit Hours.

This course presents an in-depth study of the basics of periodontics. This course will include, but is not limited to, the following: the tissues of the periodontium, clinical assessment of the periodontium, classifications of periodontal diseases, identification of etiologic factors, the relationship of the immune response to the inflammatory process and pathogenesis of periodontal diseases, clinical indices used in periodontics, and systemic factors involved in periodontal diseases. Emphasis is placed on the clinical application of current theory. Includes three (3) lecture hours. Corequisites: DENH 3021.

DENH 3035. Pharmacotherapeutics. 4 Credit Hours.

This course integrates elements of dental hygiene care as they relate to the treatment planning for special patients, understanding pharmacological agents used in dentistry, and management of medical emergencies in the dental office to include: concepts and practice related to the prevention, recognition, and management of medical emergencies that occur in the dental office with specific emphasis on systemic disease processes; understanding drug groups, their mechanism of action, dosage, indication of use, adverse effects, drug interactions, oral side effects in the treatment of human disease process, and its application in the dental hygiene clinical setting. Includes three (3) lecture hours and three (3) laboratory hours per week. Course Fees: Materials fee \$ 50.

DENH 3040. Histology/Embryology. 2 Credit Hours.

This course continues the study of the oral cavity from a histological perspective. It includes the development and microscopic organization of the four basic body tissues in the formation of the oral cavity (i.e., development of the face, oral cavity, and teeth). This information is basic to the understanding of the histological changes arising from pathological alterations in the oral cavity. Includes two (2) lecture hours per week.

DENH 4007. Clinical Administration Practicum. 4 Credit Hours.

The purpose of this course is to present Bachelor of Science Degree Completion students with an opportunity to hone administrative skills in a clinical environment. There will be interactions with second-year dental hygiene students as well as with the second-year clinic coordinator. The course includes conference and clinical application sessions to expand and refine teaching and evaluation skills and clinic administration issues including outcomes assessment, quality assurance, and information technology. This course requires a formal agreement with a participating dental hygiene program at least six weeks to the beginning of class. To begin the process, contact the UTHSCSA program director. Completion of DENH 3007 Pre-Clinic Teaching Practicum is required or previous clinical teaching experience. The course instructor may waive the prerequisites course requirement based on previous clinical teaching experience. Course Fees: Practicum fee: \$10 per hour Open for Cross Enrollment on Space Available basis.

DENH 4012. Oral Pathology. 3 Credit Hours.

This course introduces the principles of human disease including pathogenesis, clinical appearance, and treatment. In certain instances, microscopic features will be discussed if they enhance the understanding of the disease process. A portion of the course is devoted to basic principles of general pathology. The majority of the course is an overview of oral pathology with an emphasis on the dental hygienist's role in the recognition of oral disease. Includes three (3) lecture hours per week. Prerequisites: DENH 3033.

DENH 4015. Clinic 3 Practicum. 3 Credit Hours.

A continuation of DENH 4022 Clinic 2, this course provides students the opportunity to incorporate all learning in providing comprehensive dental hygiene care for patients with simple to complex needs with emphasis on more complex cases, gain experience in the practical application of dental hygiene diagnosis, utilize preventive techniques in patient education skills, practice oral prophylaxis techniques including advanced scaling, implement various management techniques for the difficult patient, and improve efficiency and effectiveness in patient care. Includes twelve (12) clinic hours per week. Course fees: Practicum fee \$10 Lab fee \$30 Prerequisites: DENH 4012, DENH 4020, and DENH 4022 Corequisites: DENH 4016.

DENH 4016. Clinic 3 Seminar. 2 Credit Hours.

This course will provide the dental hygiene student with current theoretical perspectives in which to interpret and expand dental hygiene care. Advanced and adjunctive procedures for clients of special populations are presented in seminar format and build upon the basic concepts and skills learned during Preclinic, Clinic I, and Clinic II. Knowledge gained will be applied in clinical practice through new skill acquisition and expanded client care options. Professional ethical codes and major contemporary health issues facing the dental hygienist will be presented as well as legal aspects of health care and state Dental Practice Act requirements. Includes two (2) lecture hours per week. Prerequisites: DENH 4012, DENH 4020 and DENH 4022. Corequisites: DENH 4015.

DENH 4017. Community Oral Health Practicum 2. 2 Credit Hours.

This course is the continuation of the fall Community Oral Health Course Practicum 1 in which students apply public health/health education principles through implementing individual community oral health education projects, and through participating in service-learning activities outside the Dental School setting. Opportunities include rotations in public schools and in public health dental clinics. Emphasis is placed on students interacting with a variety of patients, including the physically and mentally challenged, indigent populations, and geriatric groups. Students gain experience in health education, as well as additional experience in providing clinical preventive services out in the community. Includes eight (8) clinic hours per week in off-campus rotations or community projects. Course fees: Practicum fee \$10 per hour Prerequisites: DENH 4021.

DENH 4018. Introduction to Research. 3 Credit Hours.

This course is designed to provide the student with an opportunity to expand research knowledge in two dimensions; principles and applications. The course will consist of an in depth study of the research process, its contexts, design, data collection and communication techniques to provide learners with the analytical skills to interpret professional and scientific literature. Topics include: basic research terminology, critical evaluation of research design, methodology and sampling techniques, basic statistical calculations, data collection, and the application of evidenced based research to dental hygiene best practice. The course will also develop reading and writing skills within the context of face-to-face and/or virtual environments.

DENH 4019. Practice Management. 2 Credit Hours.

This course presents the fundamentals of dental practice for the transition from dental hygiene student to practitioner, including basic OSHA regulations and procedures necessary to be an OSHA compliance manager in private practice, maintaining a recall system, interpersonal relationships among members of the dental health team, resumé writing and interviewing skills, and computer applications to patient records. Emphasis will be on current issues in dental hygiene practice and on practical approaches to preparing students to enter the private practice setting as a member of the oral health team. Includes two (2) lecture hours per week.

DENH 4020. Clinic 2 Seminar. 2 Credit Hours.

This course is designed to provide the dental hygiene student with current theoretical perspectives in which to interpret and expand dental hygiene care. Advanced and specialized adjunctive procedures are presented in seminar format and build upon the basic concepts and skills learned during Preclinic and Clinic 1. Knowledge gained will be applied in clinical practice through new skill acquisition and expanded client care options. Case studies will be presented related to ethical issues encountered in clinical settings. Includes two (2) lecture hours per week. Prerequisites: DENH 3022, DENH 3035, DENH 3021, DENH 3034 Corequisites: DENH 4022.

DENH 4021. Community Oral Health Practicum 1. 4 Credit Hours.

Community Oral Health Practicum 1, offered in the fall semester, is the prerequisite course to Community Oral Health Practicum II offered in the spring semester. The purpose of this course is to instill in students the important role of the dental hygienist in the community, and to provide an understanding of the relationship of community oral health to public health. Students will have an opportunity to learn how to promote oral health and prevent oral disease in the community. Students will have an opportunity to learn concepts such as assessment, planning, implementation, and evaluation phases of community-based programs. During this course, the students will plan a community oral health education program that is implemented and evaluated during Community Oral Health Practicum II. Cultural differences, socioeconomic factors and barriers to health care are discussed in relation to developing preventive programs. In addition, students will have an opportunity to learn about federal and state public health programs and current public health issues. Community oral health programs for vulnerable populations such as indigent, geriatric, and special-needs patients are included. Also, students will have an opportunity to participate in community service learning activities that will allow them to provide clinical and educational services to underserved populations. The course includes three lecture hours and four clinical hours per week. Course fees: Practicum fee \$10 per hour.

DENH 4022. Clinic 2 Practicum. 3 Credit Hours.

A continuation of DENH 3021 Clinic 1, this course provides further opportunity to incorporate all learning in providing comprehensive dental hygiene care for patients with simple to complex needs with an emphasis on moderate cases. In addition, this course provides an opportunity for the student to gain experience in the practical application of dental hygiene diagnosis, utilize preventive techniques in patient education skills, practice oral prophylaxis techniques including advanced scaling, and implement various management techniques for the difficult patient. Includes twelve (12) clinic hours per week. Course Fees: Practicum fee \$10 per hour Lab fee: \$30. Prerequisites: DENH 3021, DENH 3022, DENH 3034, and DENH 3035 Corequisites: DENH 4020.

DENH 4023. Special Topics. 1-3 Credit Hours.

Students will be given an opportunity to gain an in-depth understanding of selected topics through seminars, conferences, projects, or other appropriate learning methods.

DENH 4024. Concepts And Practice In Teaching. 3 Credit Hours.

This course offered to Bachelor of Science Degree Completion students, introduces basic principles and techniques used in health care education. Topics include: issues and trends in professional education, principles of adult education, learning styles and motivation, case-based learning, competency-based education, patient and community education, clinical and laboratory instruction, course design, development of lesson plans and learning activities, guidelines for presentation skills, evaluating student performance, and using educational media and software. Open for Cross Enrollment on Space Available basis.

DENH 4025. Advanced Periodontics. 3 Credit Hours.

This course builds on the knowledge base presented in DENH 3034 Periodontics, and gives students the opportunity to expand their understanding of treatment, prevention, and diagnosis of periodontal disease. This course examines, but is not limited to, the following topics: the role of the hygienist in non-surgical soft-tissue management, exposure to surgical techniques, wound healing, new technology in diagnostic tools, and products used in treatment or home care. This course further emphasizes the integration of theory into the practice of clinical dental hygiene. Includes three (3) lecture hours per week. Prerequisites: Completion of first year dental hygiene coursework.

DENH 4026. Healthcare Ethics. 1 Credit Hour.

This course is designed to provide students with an overview of professional and ethical issues facing dental hygiene professionals. Topics to be explored include the beliefs, fundamental principles, core values and standards of professional responsibility set forth in the ADHA Code of Ethics for Dental Hygienists. Ethical dilemmas will be discussed and decision making models will be introduced and used to assist students in solving these dilemmas. Additionally, team-based learning activities will serve to support student learning.

DENH 4027. The Summer Institute In Aging. 3 Credit Hours.

This course is an intensive interdisciplinary service-learning study of the assessment, health promotion, disease prevention, and treatment of the aging person. The course will examine physical, mental, emotional, legal, cultural, and social aspects of gerontology. The course is also designed to encourage the learner to reflect on the impact of the elderly on society, the impact to the dental hygiene profession, and the learner on a personal level.

DENH 4028. Public Health Policy. 3 Credit Hours.

This course will provide the learner with a history and overview of American public health policy. Included in the course is the evolution of health policy in the United States. Various resources will be explored to gain understanding of the process for policy development. By the end of the term the learner will develop a mock public policy analysis, about a topic of their choice that will include elements discussed in the course. When appropriate this course will utilize new and emerging public health policies to supplement course material. Admission to the Bachelor of Science Degree Completion Program is required.

DENH 4029. Dental Hygienist Role in the Management of Elder Abuse. 3 Credit Hours.

This course will allow the learner to acquire the skills and knowledge to recognize the mistreatment of elders. First, the various types of elder abuse will be identified followed by discussion of the prevalence of abuse. Next, case study application will direct the learner in recognizing the risk factors and signs of elder abuse. The legal requirement and major ethical dimensions for the dental hygienist to report abuse will be explored, and an explanation of required abuse documentation will be provided. Finally, techniques for the dental hygienist may work effectively with law enforcement will conclude this course.

DENH 4030. Introduction to Professional Writing. 1 Credit Hour.

This course was designed to help the online bachelor completion student develop concepts of professional writing skills utilizing state of the art communication resources. This is a required course for BS completion students to be taken in their first semester of the program.

DENH 4040. Dental Hygiene Honors Program. Credit Hours.

This course is to introduce dental hygiene students to fundamental principles of teaching and learning with focus on planning courses, analyzing the learning environment, planning and presenting brief, focused mini-lectures, known as Rapid Teach Topics, and completing a Triple T (Tough Teaching Topic) exercise in small groups. Students also analyze their personality in relation to academics as a career.

DENH 4045. Academic Dental Hygiene Career Mentorship. Credit Hours.

This course provides dental hygiene students with an opportunity to explore first-hand the academic arm of the dental hygiene profession by learning about faculty members' pathways into academic teaching and eliciting faculty perspectives about working in dental hygiene schools.

DENH 4050. Dental Hygiene Classroom Teaching Seminar. Credit Hours.

The course goal is to provide senior dental hygiene students with opportunities to function as a teacher by planning and delivering instruction followed by: self assessment, feedback from the students who received the instruction, and feedback from the THP Director and/or faculty members who observed the students' teaching activities. The focus of this course is classroom teaching.

DENH 4091. Independent Study. 1-3 Credit Hours.

This course includes independent reading, research, discussion, project, and/or writing under the direction of a faculty member. The course may be repeated for credit. UTHSCSA graduates are limited to one Independent Study course; non-UTHSCSA grads are limited to two Independent study courses.

DENH 4103. Health Promotion. 3 Credit Hours.

This course provides the Bachelor of Science Degree Completion student a theoretical framework for defining health promotions and set the foundation for students to see potential for health promotions in their work. Topics in this course will use evidence-based practice to reflect health promotion theories, prevention, risk assessment, health education, and health policy. Additionally, interventions and strategies will be used to effectively evaluate the determinants of health and the outcomes of individuals, families, groups and communities. In addition this course will help learners understand the impact of media and delivery style for effective health messages.

DENH 4111. Current Issues In Dental Hygiene. 3 Credit Hours.

This course investigates trends influencing the practice of dental hygiene. The history and image of dental hygiene, career satisfaction, educational trends and access to care, independent practice and self-regulations are the issues addressed in this course. A closer look at the legal, political and ethical ramifications of these topic areas as they relate to the dental hygiene profession will be explored.

DENH 4415. Advanced Public Health Practicum. 4 Credit Hours.

This course is a continuation of the Public Health Practicum and will provide the Bachelor of Science Degree Completion students with an opportunity to gain further experience with oral health care delivery projects, development of health promotion and prevention activities, or gain advanced skills in designing community-based and service learning programs. This course will include planning and execution of a project related to the student's individual area of interest. Course fees: Practicum fee \$10 per hour.

DENH 5003. Current Issues In Dental Hygiene. 3 Credit Hours.

This course investigates trends influencing the practice of dental hygiene. The history and image of dental hygiene, career satisfaction, educational trends, and access to care, independent practice, and self-regulations are the issues addressed in this course. A closer look at the legal, political and ethical ramifications of these topic areas as they relate to the dental hygiene profession will be explored. Acceptance into the Master of Dental Hygiene Program is required to take this course.

DENH 5007. Clinical Administration Practicum. 4 Credit Hours.

The purpose of this course is to present the graduate student with an opportunity to hone administrative skills in a clinical environment. There will be interactions with second-year dental hygiene students as well as with the second-year clinic coordinator. The course includes web based interaction focusing on clinical application to expand and refine teaching and evaluation skills necessary for clinic administration. Specific topics include outcomes assessment, quality assurance, and information technology. Permission from the program director is required. The prerequisite requirement can be waived by the program director. Prerequisite: DENH 5050 Course Fees: Practicum fee \$10 per hour.

DENH 5010. Teaching Internship. 3 Credit Hours.

This internship will provide graduate students with the opportunity to teach in various clinics, laboratories, and didactic courses to acquire experience in instructing undergraduate students in a variety of situations. The course is arranged on a contractual basis and tailored to meet the individual goals, needs, and interests of each graduate student, while keeping in mind background experiences. Supervision and evaluation of teaching performance are provided by the graduate faculty. Student must have prerequisite or approval by Program Director. Prerequisite: DENH 5050 Course Fees: Practicum fee \$10 per hour.

DENH 5015. Public Health Practicum. 4 Credit Hours.

This course is an opportunity to gain experience with oral health care delivery or promotion in a public health area. The course will include planning and execution of a project in the student's individual area of interest. One full day per week requires the Master of Science student to work in a public health setting in San Antonio or in their community. A formal agreement must be established with the participating public health clinic prior to the beginning of class. Course Fees: Practicum fee \$10 per hour.

DENH 5017. Clinical Teaching Practicum. 4 Credit Hours.

This course is an introduction to clinical instruction. The student will have the opportunity to gain experience in identifying and correcting performance problems relating to direct patient care. Instruction will include seminar and a clinical application session emphasizing the instructor's role as facilitator, role model, and evaluator. This course requires formal agreement with a participating dental hygiene program prior to the beginning of class. (The didactic portion of this course is delivered through CANVAS.) Students must have taken DENH 5050 before registering for this course or get a waiver by the Program Director. Course Fees: Practicum fee \$10 per hour.

DENH 5022. Research Apprenticeship. 3 Credit Hours.

This course allows a graduate to review the literature and to design a research project under the direction of a faculty advisor that leads toward thesis research. Students are expected to design a research proposal that prepares them to collect and analyze data for their future thesis project. Prior to registering for this course requires approval from the advanced program director. This course must be completed in its entirety prior to enrolling in Thesis (DENH 6098). Successful completion of core studies for the Master of Science in Dental Hygiene program to include Educational Principles and Applications, Research Principles and Applications, Biostatistics, Research Ethics, and Professional Communication is required before taking this course.

DENH 5024. Professional Communication. 3 Credit Hours.

This course is designed to help the student develop concepts of professional communication including verbal, visual, and writing skills using state-of-the-art communication resources. Within an interactive topic and computer laboratory format, the students is expected to produce a series of scientific writings, abstracts, annotated bibliographies, and a term paper/research report in the form of a review of the literature. Open for Cross Enrollment on Space Available basis.

DENH 5025. Dental Hygienist Role in the Management of Elder Abuse. 3 Credit Hours.

This course will allow the learner to acquire the skills and knowledge to recognize the mistreatment of elders. First, the various types of elder abuse will be identified followed by a discussion of the prevalence of abuse. Next, case study application will direct the learner in recognizing the risk factors and signs of elder abuse. The legal requirement and major ethical dimensions for the dental hygienist to report abuse will be explored, and an explanation of required abuse documentation will be provided. Finally, techniques for the dental hygienist may work effectively with law enforcement will conclude this course.

DENH 5026. Research Principles & Application. 3 Credit Hours.

This course is designed to provide the student with an opportunity to expand research knowledge. The course will consist of an in depth study of the research process, its contexts, design, data collection and communication techniques. All students are expected to complete assigned readings and participate in on-line discussions and activities that will complement principles covered in assignments. Students must be accepted into the Master of Science in Dental Hygiene program to take this course.

DENH 5027. The Summer Institute In Aging. 3 Credit Hours.

This course is an intensive interdisciplinary service-learning study of the assessment, health promotion, disease prevention, and treatment of the aging person. The course will examine physical, mental, emotional, legal, cultural, and social aspects of gerontology. The course is also designed to encourage the learner to reflect on the impact of the elderly on society, the impact to the dental hygiene profession, and the learner on a personal level. Acceptance into the Master of Science in Dental Hygiene Program is required to take this course.

DENH 5028. Public Health Policy. 3 Credit Hours.

This course will provide the learner with and overview of American Public health policy, and the changes in policy as a result of international and national initiatives. Included in the course is the evolution of oral health public policy in the United States. Many resources will be explored to gain understanding of the process of policy development. The student will locate current event articles that discuss topics in the reading. Capstone projects vary from researching and submitting a public policy paper or white paper on a topic pertinent to the course work. Acceptance into the Master of Science in Dental Hygiene Program is required before taking this course.

DENH 5036. Health Promotion. 3 Credit Hours.

This course is designed to provide learners a theoretical framework for defining health promotion and set the foundation for students to see potential for health promotion in their work. Topics in this course will use evidence based practice to reflect health promotion theories, prevention, risk assessment, health education, and health policy. Additionally, interventions and strategies will be used to effectively evaluate the determinants of health and the outcomes of individuals, families, groups and communities. Student must be accepted into the Master of Science in Dental Hygiene Program to take this course.

DENH 5050. Educational Principles and Application. 3 Credit Hours.

This course is designed to promote high standards of teaching excellence by providing the learner with research based methods, policies, and practices for being an effective higher education teacher. The course will focus on all aspects of teaching: learning theories, course design, teaching methods and learning experiences, course management, and assessment. Specific emphasis will be on developing significant learning experiences for students. Gaining a better understanding of the design process will empower teachers to be more creative and effective in providing significant learning opportunities for students. Through this course, students will apply information gained and ultimately develop a personal educational statement. Acceptance into the Master of Science in Dental Hygiene Program is required to take this course.

DENH 5091. Special Topics in Dental Hygiene. 1-9 Credit Hours.

Students will be given an opportunity to gain an in-depth understanding of selected topics through seminars, conferences, projects, or other appropriate learning methods.

DENH 5903. Organizational Leadership. 3 Credit Hours.

The purpose of this course is to present foundational principles and theory relating to organizational leadership, communication strategies and behaviors, management of change, decision-making, and other essential elements of leadership. The course will provide students with general information relating to organizational theory, principles and styles. Additional topics will include leadership in educational organizations to include external and internal factors affecting leaders, program planning and as an elective and is open to all advanced education students enrolled in either the B.S. or M.S. Dental Hygiene Program and graduate students in other Health Professions Programs.

DENH 5924. Biostatistics. 3 Credit Hours.

This course is an introduction to biostatistics. Emphasis is upon application of statistical methods to biological problems. Topics include descriptive statistics, probability, hypothesis testing, and estimation.

DENH 5926. Preclinical Teaching Practicum. 4 Credit Hours.

This course is an introduction to concepts of preclinical instruction. Instruction will include seminar and laboratory application sessions emphasizing theories of psychomotor skill development; diagnosis of performance problems; provision of feedback; identification of cognitive, psychomotor, and affective behaviors; and faculty calibration. This course requires formal agreement with a participating dental hygiene program prior to the beginning of class. (The didactic portion of this course is delivered through Canvas.) Prerequisites: DENH 5050 and DENH 5010 Course Fees: Practicum fee \$10 per hour.

DENH 6001. The Dental Hygienist Role in the Management of Elder Abuse. 3 Credit Hours.

This course will allow the learner to acquire the skills and knowledge to recognize the mistreatment of elders. First, the various types of elder abuse will be identified followed by discussion of the prevalence of abuse. Next, case study application will direct the learner in recognizing the risk factors and signs of elder abuse. The legal requirement and major ethical dimensions for the dental hygienist to report abuse will be explored, and an explanation of required abuse documentation will be provided. Finally, techniques for the dental hygienist may work effectively with law enforcement will conclude this course. Acceptance in the Master of Science in Dental Hygiene Program is required before taking the class.

DENH 6091. Independent Study. 1-3 Credit Hours.

This course includes independent reading, research, discussion, project, and/or writing under the direction of a faculty member. The course may be repeated for credit. Student must be accepted into the Master of Science in Dental Hygiene Program before taking the course.

DENH 6098. Thesis. 1-9 Credit Hours.

The first goal of this course is admit the student to candidacy in the Graduate School of Biomedical Sciences (GSBS) in order that they may begin individual research. The research is supervised by the Thesis Committee of selected faculty. The Thesis Chair will have the primary responsibility of supervising student progress. By conducting an individual research project, collecting and analyzing the data, and developing conclusions based on that data the student will understand the research process. Students will be mindful of the ethical issues associated with human subject and conduct the research under the guidelines of the University of Texas Health Science Center's Internal Review Board (IRB) guidelines. Students who successfully complete the research project with an oral presentation of their findings and submission of a manuscript to a peer reviewed journal or write a thesis will conclude their studies and graduate. The student has an option of submission of a manuscript in the form of writing a full thesis. The thesis option must meet the guidelines of the GSBS. Student must have completed 30 hours of core and elective courses, DENH 5022 Research Apprenticeship in the MS in Dental Hygiene program before taking the course.

EMSP Courses**EMSP 1137. Emergency Procedures 1. 1 Credit Hour.**

Application of emergency medical procedures.

EMSP 1149. Pre-Hospital Trauma Life Support. 1 Credit Hour.

This course is an intense skill development in emergency field management, systematic rapid assessment, resuscitation, packaging, and transportation of patients. It includes experiences necessary to meet initial certification requirements.

EMSP 1160. EMT Basic Clinical. 1 Credit Hour.

This course is a method of instruction providing detailed education, training, and work-based experience and direct patient/client care at a clinical site.

EMSP 1161. Clinical 1. 1 Credit Hour.

This course is a method of instruction providing detailed education, training, and work-based experience and direct patient/client care at a clinical site.

EMSP 1162. Clinical 2. 1 Credit Hour.

This course is a method of instruction providing detailed education, training, and work-based experience and direct patient/client care at a clinical site. Prerequisites: EMSP 1161.

EMSP 1201. Anatomy and Physiology for Paramedic Practice. 2 Credit Hours.

A study of the structure and function of the human body, emphasis will be given to the study of cells and tissues, and anatomical and physiological interrelationships of the skeletal, muscular, nervous, and endocrine systems. This course is designed primarily for Paramedic students.

EMSP 1238. Introduction to Paramedic Practice. 2 Credit Hours.

This course is an exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Course Learning Outcomes: At the completion of this module, the student will be required to understand the roles and responsibilities of a paramedic within the EMS system, apply the basic concepts of development and pathophysiology to assessment, and management of emergency patients.

EMSP 1248. Emergency Pharmacology. 2 Credit Hours.

This course is a comprehensive course covering all aspects of the utilization of medications in treating emergencies. The course is designed to complement Cardiology, Special Populations, and Medical Emergency courses. Course Learning Objectives: The student will be required to display a command of general pharmacological terminology, general drug mechanisms, administration routes and administration procedures, and drug dose calculations. Students will be required to demonstrate understanding of the pharmacodynamics, pharmacokinetics, indications, contraindications, possible side effects, and common drug interactions of a variety of medications used in out-of-hospital medical care.

EMSP 1256. Airway Management and Patient Assessment. 2 Credit Hours.

This course is a detailed study of the knowledge and skills required to reach competence in performing patient assessment and airway management. Course Learning Outcomes: At the completion of this module, the student will be required to take a proper history and perform a comprehensive physical exam on any patient, develop a patient care plan, communicate with others, and establish and/or maintain a patent airway, oxygenate, and ventilate a patient. Course fees: Lab materials fee \$150.

EMSP 1301. Anatomy and Physiology for Paramedic Practice. 3 Credit Hours.

A study of the structure and function of the human body, emphasis will be given to the study of cells and tissues, and anatomical and physiological interrelationships of the skeletal, muscular, nervous, and endocrine systems. This course is designed primarily for Paramedic students.

EMSP 1338. Introduction to Paramedic Practice. 3 Credit Hours.

This course is an exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Course Learning Outcomes: At the completion of this module, the student will be required to understand the roles and responsibilities of a paramedic within the EMS system, apply the basic concepts of development and pathophysiology to assessment, and management of emergency patients.

EMSP 1344. Cardiology. 3 Credit Hours.

This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies. Prerequisite: EMSP 1244.

EMSP 1348. Emergency Pharmacology. 3 Credit Hours.

This course is a comprehensive course covering all aspects of the utilization of medications in treating emergencies. The course is designed to complement Cardiology, Special Populations, and Medical Emergency courses. Course Learning Objectives: The student will be required to display a command of general pharmacological terminology, general drug mechanisms, administration routes and administration procedures, and drug dose calculations. Students will be required to demonstrate understanding of the pharmacodynamics, pharmacokinetics, indications, contraindications, possible side effects, and common drug interactions of a variety of medications used in out-of-hospital medical care.

EMSP 1356. Airway Management and Patient Assessment. 3 Credit Hours.

This course is a detailed study of the knowledge and skills required to reach competence in performing patient assessment and airway management. Course Learning Outcomes: At the completion of this module, the student will be required to take a proper history and perform a comprehensive physical exam on any patient, develop a patient care plan, communicate with others, and establish and/or maintain a patent airway, oxygenate, and ventilate a patient. Course fees: Lab materials fee \$ 225.

EMSP 1444. Cardiology. 4 Credit Hours.

This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies. Prerequisite: EMSP 1244.

EMSP 1501. EMT. 5 Credit Hours.

This course is an introduction to the level of EMT Basic. It covers the skills necessary to provide emergency medical care at the basic life support level with an ambulance service or other specialized service.

EMSP 2135. Advanced Cardiac Life Support. 1 Credit Hour.

Instruction satisfies guidelines published by the American Heart Association for their ACLS core curriculum. The focus is on the initial management of the cardiopulmonary arrest patient, including advanced airway management techniques, cardiovascular pharmacology, defibrillation, and arrhythmia analysis. The student must review the current AHA ACLS text prior to class. Successful completion results in ACLS Provider Course Completion Card.

EMSP 2138. EMS Operations. 1 Credit Hour.

This is a course of study to prepare the paramedic to safely manage medical incidents, rescue situations, hazardous materials, and crime scenes.

EMSP 2160. Paramedic Clinical 3. 1 Credit Hour.

A method of instruction providing detailed education training and work-based experience and direct patient/client care at a clinical site. Prerequisites: EMSP 1162.

EMSP 2161. Paramedic Clinical 4. 1 Credit Hour.

This course is a clinical internship requiring each student under close supervision to complete a stated number of objectives in both the hospital and ambulance environment. Clinical courses to be taken in the sequence are listed above. Students are evaluated on cognitive, psychomotor, and affective domains. A numerical grade is awarded based on performance levels and course objectives met. Note: Successful completion of clinical requirements is based on objectives met along with the required Hours. It may be necessary for a student to complete more than the scheduled 375 hours in order to meet the objectives.

EMSP 2164. Paramedic Practicum. 1 Credit Hour.

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EMSP 2174. Practicum for Advanced Paramedic Practice. 1 Credit Hour.

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EMSP 2177. Emergency Procedures 3. 1 Credit Hour.

Application of emergency medical procedures.

EMSP 2230. Special Populations. 2 Credit Hours.

This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations.

EMSP 2237. Emergency Procedures 2. 2 Credit Hours.

Application of emergency medical procedures.

EMSP 2238. EMS Operations. 2 Credit Hours.

This is a course of study to prepare the paramedic to safely manage medical incidents, rescue situations, hazardous materials, and crime scenes.

EMSP 2243. Assessment-Based Management. 2 Credit Hours.

This course is designed to provide for teaching and evaluating comprehensive assessment-based patient care management.

EMSP 2244. Cardiology. 2 Credit Hours.

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies.

EMSP 2255. Trauma Management. 2 Credit Hours.

This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with traumatic injuries and to safely manage the scene of an emergency. At the completion of this module, the student will be required to integrate the pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the trauma patient.

EMSP 2274. Medical Emergencies 2. 2 Credit Hours.

Knowledge and skills in the assessment and management of patients with medical emergencies, including medical overview, neurology, gastroenterology, immunology, pulmonology, urology, hematology, endocrinology, toxicology, and other related topics.

EMSP 2278. Advanced Pharmacology. 2 Credit Hours.

Utilization of medications in treating emergency situations with special emphasis on basic principles of pharmacology. This includes the pharmacologic properties of major drug classes and individual drugs, and the clinical application of drug therapy and awareness.

EMSP 2300. Preparation for Professional Practice. 3 Credit Hours.

Theory and skills necessary for the management of cardiac, medical, trauma and pediatric patients specified by American Heart Association and National Association of EMTs guidelines. May be repeated multiple times to improve student proficiency.

EMSP 2330. Special Populations. 3 Credit Hours.

This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations.

EMSP 2334. Medical Emergencies 1. 3 Credit Hours.

This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with medical emergencies. At the completion of this module, students will be required to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the medical patient.

EMSP 2355. Trauma Management. 3 Credit Hours.

This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with traumatic injuries and to safely manage the scene of an emergency. At the completion of this module, the student will be required to integrate the pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the trauma patient.

EMSP 2371. Physical Exam and History Taking. 3 Credit Hours.

The purpose of this course is to provide the learner with the ability to perform and work in non-traditional and rural settings. Learners will gain the skills of patient assessment, disease identification, health education, and preventative medicine. Learners are given the opportunity to study methods for understanding disease processes through proper techniques for eliciting a complete patient history and performing a thorough physical examination. (Successful completion of Physical Assessment & Airway Management and Physical Examination and History Taking satisfies the Physical Examination and History Taking course requirements for the EHS BS degree).

EMSP 2376. Cardiology 2. 3 Credit Hours.

A study of the fundamentals of electrocardiography with emphasis on the role of the 12-lead ECG for advanced paramedic and community paramedic practice. (Successful completion of Cardiology I and II satisfies the Electrocardiography in EHS course requirement for the EHS BS degree).

EMSP 2378. Critical Care Paramedic. 3 Credit Hours.

The purpose of this course is to provide the learner with advanced knowledge in critical care medicine and to prepare healthcare personnel to function as members of a critical care transport team. Topics will include monitoring technology, advanced procedures, diagnostic testing, and treatment of acutely critical patients. (Successful completion satisfies the Critical Care Paramedic course for the EHS BS degree.).

EMSP 2434. Medical Emergencies 1. 4 Credit Hours.

This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with medical emergencies. At the completion of this module, students will be required to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the medical patient.

EMSP 2443. Assessment-Based Management. 4 Credit Hours.

This course is designed to provide for teaching and evaluating comprehensive assessment-based patient care management.

EMSP 3001. Foundations of Emergency Health Sciences. 3 Credit Hours.

This course is an introduction to EMSP. This course surveys the history, evolution, theoretical concepts, and clinical methods and techniques that support the practice of EMSP.

EMSP 3003. Critical Care Medicine. 3 Credit Hours.

This course is designed to provide advanced knowledge in critical care medicine. Topics will include monitoring technology, advanced procedures, diagnostic testing, and treatment of acutely critical patients.

EMSP 3004. Pharmacology 1 for EMS Providers. 3 Credit Hours.

This course is designed to provide the learner with a fundamental knowledge of the actions and therapeutic uses of drugs. The topics covered will include basic principles of drug action, pharmacokinetics, autonomic and cardiovascular pharmacology, neuropharmacology, toxicology, endocrine pharmacology, and respiratory tract pharmacology. Open for Cross Enrollment on Space Available basis.

EMSP 3006. Electrocardiology in Emergency Health Science. 3 Credit Hours.

A study of the fundamentals of electrocardiology, this course will emphasize the role of the 12-lead ECG in out-of-hospital medical care. The purpose of this course is to teach a systematic-analytical approach to rapid 12-lead interpretation. Topics begin with cardiac anatomy and physiology and progress to the level of recognizing the classic 12-lead and multi-lead ECG patterns. Open for Cross Enrollment on Space Available basis.

EMSP 3007. Human Diseases. 3 Credit Hours.

This purpose of this course is to provide a foundation in basic disease conditions, pathophysiological process behind major diseases and their causes, definitions of disease, classifications of disease, and descriptions of diseases as they pertain to the emergency health sciences. Open for Cross Enrollment on Space Available basis.

EMSP 3010. Basic Cardiac Life Support. Credit Hours.

Course instruction satisfies AHA guidelines for Basic Cardiac Life Support (BCLS). Successful completion merits AHS BLS Course Completion Card. Topics include basic airway and ventilatory management of the choking and/or unconscious infant, child, and adult; cardiac chest compressions; and automated external defibrillation (AED). AHD Standard written and skills exams administered.

EMSP 3011. EMS Informatics. 3 Credit Hours.

This course is a class designed to initiate today's EMS professional to the rapidly advancing field of information science and to acquaint the students with the concepts of electronic field data collection, database theory and its application to EMS, information driven performance improvement, and clinical education.

EMSP 3012. Behavioral Medicine and Psychopathology. 3 Credit Hours.

This course provides an opportunity to develop an understanding of human behavior by providing an overview of behavioral disease processes and differentiation criteria to include disease presentation, physical examination findings, laboratory testing, and therapeutic approaches. The course will focus on issues pertinent to the pre-hospital environment including common patient presentation, overview of the legal system with mental health patients, and individual and system interventions.

EMSP 3013. Professional Orientation and Legal Foundations. 3 Credit Hours.

This course provides the student with an overview of the legal foundations for Emergency Medical Services. Topics include concepts of malpractice, litigation, consent and refusal of medical treatment, advanced directives, patient confidentiality, and expert and factual witness preparation.

EMSP 3014. Interprofessional Health Care Teams. 3 Credit Hours.

Healthcare is a volatile, uncertain, complex, and ambiguous system involving groups and teams of professionals. In an effort to improve general patient population health, the overall health care experience, and reduce the per capita cost of care, this class will explore relational leadership that promotes interdisciplinarity, interprofessionalism, and productive teamwork. During this course, learners will review theories and rich references while participating in activities and stimulating discussions to think differently about their roles and styles as leaders or members of a team.

EMSP 3015. Multicultural Health. 3 Credit Hours.

Cultural competence is essential to healthcare professionals. Medical professionals interact daily with diverse groups of people. This course will focus on differences in cultural beliefs about health, wellness, illness, and death, as well as cross-cultural health models and effective communications with the goal of developing and evaluating health promotion programs within the community. Learners will participate in online activities, case studies, and activities.

EMSP 3031. Directed Study. 1-4 Credit Hours.

This course is available to the learner to allow for a voluntary course of independent study in a clinical/advanced provider concentration.

EMSP 3041. Current Research In Emergency Health Sciences. 3 Credit Hours.

This course is a seminar designed to encourage the learner to discover research and research trends in the field of EMSP. Basic concepts in research methods will be discussed. The learner will have the opportunity to discover methods, procedures, and ways of analysis for examining research.

EMSP 3100. Orientation to Online Learning. 1 Credit Hour.

A course designed to provide the student with necessary information, tools, and strategies to enhance and facilitate learning at a distance at the Health Science Center.

EMSP 4001. Physical Examination and History Taking. 3 Credit Hours.

This course is designed to assist students in refining history taking, psychosocial assessment, and physical assessment skills. Emphasis is placed on detailed health history taking, differentiation, interpretation, and documentation of normal and abnormal findings. Learners are given the opportunity to study methods for understanding disease processes through proper techniques for eliciting a complete patient history and performing a thorough physical examination. Open for Cross Enrollment on Space Available basis.

EMSP 4002. Pathophysiology for EMS Providers. 3 Credit Hours.

This course is designed to introduce the student to pathophysiologic concepts related to altered biological processes affecting individuals across the lifespan. It includes basic mechanisms of disease, the immune response, and selected disorders of the following systems: neurologic, endocrine, reproductive, musculoskeletal, cardiovascular, hematologic, respiratory, urinary, and digestive.

EMSP 4003. Flight Medicine. 3 Credit Hours.

This course is designed to provide the learner with general physics of flight as well as the effect that flight has on patients and equipment utilized in patient care. Additionally, general aviation guidelines and safety protocols will be introduced as well as the regulatory structure of flight medicine. Open for Cross Enrollment on Space Available basis.

EMSP 4004. Management of Disasters and Hazard Materials. 3 Credit Hours.

This course discusses considerations of the theoretical and practical foundations necessary to manage multi-casualty and multi-agency incidents, including planning, response, triage, and scene control. Medical, surgical, mental health, and public health views are discussed along with the resolution phases of disaster.

EMSP 4005. EHS Systems Management and Budget. 3 Credit Hours.

This course is designed to identify and discuss various forms and trends of EHS Systems management. From the volunteer service to the large, urban EHS system, the learner will have the opportunity to become familiar with the various aspects of America's EHS services. Budgeting and financial management skills and understanding necessary to manage emergency health systems will be emphasized.

EMSP 4006. Educational Issues in Emergency Health Sciences. 3 Credit Hours.

This course analyzes educational and training needs relating to EMS agencies. Principles of adult teaching and learning are presented.

EMSP 4007. Human Resource Development. 3 Credit Hours.

This course reviews the policies necessary to ensure that properly prepared and motivated personnel are available to carry out the mission and daily operations of an EMS organization and to gain a scholarly understanding of and familiarity with foundational HRD theory and research. Topics include methods of hiring staff, performance appraisal processes, legal requirements around health and safety, union matters, and sexual harassment in the workplace. Open for Cross Enrollment on Space Available basis.

EMSP 4008. Leadership Development. 3 Credit Hours.

This course is a study and application of contemporary leadership theories and conceptual, skill-building, feedback, and personal growth approaches for the development of effective organizational leadership behaviors and practices. Open for Cross Enrollment on Space Available basis.

EMSP 4009. Pediatric Advanced Life Support (PALS). 1 Credit Hour.

Instruction presented satisfies guidelines published by the American Heart Association's ECC for the PALS core curriculum. The focus is on the initial management of the cardiopulmonary arrest pediatric patient including advanced airway management techniques, cardiovascular pharmacology, defibrillation, and arrhythmia analysis. The student must review the current AHA PALS text prior to class. Successful completion results in PALS Provider Course Completion certification.

EMSP 4010. Emer Med Serv-Ambulance. 4 Credit Hours.

Orientation to the San Antonio Fire Department Standard Medical Operating Procedures (SMOPs) and EMS Organization is followed by assignment to SAFD Paramedic Ambulance teams. The student experiences emergency patient encounters involving on-the-scene pre-hospital management of medical, surgical, pediatric, psychological, obstetrical, and social emergencies. Experiences include vehicle extrication, full range of pre-hospital medical and trauma patients, EMS communication procedures, medical-legal situations, conflict resolution, EMS-Police cooperation, BLS/ACLS, hospital diversions experience and patient access to care problems peculiar to EMS. During 40 requisite patient encounters, the student makes brief assessment notes, assists in the care and transportation of patients to the 20 San Antonio Emergency rooms. The rotation also includes EMS Case Discussions, formal classes in comparative EMS organizations, methods of emergency triage, introduction to disaster medicine, management of mass casualties, and a survey of weapons of mass destruction. Prerequisite: Current BLS Certification and successful completion of third year of medical school is required.

EMSP 4011. Contemporary Ethical Dilemmas. 3 Credit Hours.

Contemporary Ethical Dilemmas in Health Professions with special emphasis on out-of-hospital and EMS medical care. This course provides the knowledge necessary to understand ethical behaviors and decision-making in health care and is an introduction to various ethical-legal issues.

EMSP 4012. Pharmacology 2 for EMS Providers. 3 Credit Hours.

This course is designed to provide a fundamental knowledge of the actions and therapeutic uses of drugs. Topics covered include: fluid and electrolyte balance, bone and joint disorders, nutrition, infectious diseases, and cardiovascular and parasitic diseases. Online course. Note: EMSP 3004 Pharmacology I is not a prerequisite for this course.

EMSP 4021. Internship. 6 Credit Hours.

This course is a semester internship/capstone experience by arrangement.

EMSP 4023. Mobile Integrated Healthcare Paramedicine. 3 Credit Hours.

From managing chronic disease to providing preventive care to coordinating health services, the Mobile Integrated Healthcare Paramedic (MIHP)/Community Paramedic (CP) collaborates with a team of health care professionals to address health problems within their communities, reduce hospital readmissions, prevent unnecessary ambulance transports, and help patients manage their medical needs to achieve the best possible long-term outcome. The MIHP course will consist of lessons developed to equip experienced paramedics with the skills they need to succeed in a Mobile Integrated Healthcare program.

EMSP 4031. Independent Study 2-Clinical. 3 Credit Hours.

This course is available to the learner to allow for a voluntary course of independent study in a clinical/advanced provider concentration.

EMSP 4100. Advanced Cardiac Life Support. 1 Credit Hour.

The focus of this course is the initial management of the cardiopulmonary-arrest patient including advanced airway management techniques, cardiovascular pharmacology, defibrillation, and arrhythmia analysis. The student must review the current AHA ACLS text prior to class. Successful completion results in an ACLS Provider Course Completion Card. Instruction presented satisfies guidelines published by the American Heart Association's ECC for their ACLS core curriculum.

EMSP 6135. Advanced Cardiac Life Support. 1 Credit Hour.

Theory and skills necessary for the management of cardiovascular emergencies as specified by the American Heart Association (AHA) guidelines. This course was designed to be repeated multiple times to improve student proficiency and available for Master's level of higher programs.

EMSP 7001. Basic Cardiac Life Support. Credit Hours.

Course instruction satisfies AHA guidelines for Basic Cardiac Life Support. Successful completion merits AHA BLS Healthcare Provider course completion certification. Topics include basic airway and ventilatory management of the choking and/or unconscious infant, child or adult victim, cardiac chest compression techniques, and automated external defibrillation (AED). AHA standard written and skills exams administered.