

DENTAL MEDICINE, DMD

Degree: Doctor of Dental Medicine (DMD)

Program Overview

The program will accomplish its goals through academic work in four themes and two threads, which are woven throughout the four years of the program. The program includes a variety of educational formats to deliver the curricula, including problem-based learning sessions, team-based learning, independent study, seminars, extensive hands-on preclinical simulation education and dental procedural skills development, use of digital dental technologies, experiential learning opportunities, traditional lectures, laboratories, standardized patient experiences, and patient-based comprehensive care. An important goal of the curriculum is to help students become better prepared in independent learning, interprofessional practice, critical thinking skills, and the use of evidence. The curriculum includes the following themes and threads:

Themes

Health and Well-Being

This theme contains all curricula – both didactic and clinical – that apply to health and the normal structure and functioning of the body and of the oral complex. The traditional content areas of physiology, biochemistry, anatomy, histology, among other dental science classes, are integrated through cases to form a better bridge between the basic sciences and the clinical sciences.

Disease Processes

The Disease Processes theme includes content related to general and oral diseases. These topics are often melded with healthy structure and function content to provide students with a global perspective of the implications of disease on usual functioning.

Restoration of Health

This theme contains content related to therapies necessary for treatment of medical disease and dental disease. A focus on restoring oral health is accomplished through virtual reality clinical skills training, training on models and progression to comprehensive dental care in conjunction with didactic knowledge.

Maintenance of Health

The Maintenance of Health theme focuses on a curriculum which explores strategies for preserving health through general and oral health therapies, patient education, disease risk assessment, and disease prevention. This theme provides a viewpoint from which students can develop life-long care plans for their patients.

Threads

Inquiry

This thread that runs throughout the four-year program supports student growth in skills in clinical decision making. Students develop an understanding of what scientific evidence is, how to make clinical decisions based on the best available evidence and to value scientific discovery in all aspects of dentistry.

Leadership

This thread contains curriculum for the development of students as ethical professionals and caring practitioners who are stewards of oral health of the individual patient, the community, and society. An important focus in the Leadership curriculum is professionalism and character development. The Leadership curriculum also focuses on patient and risk management as well as a strong one-year practice management curriculum, and integration and application of the practice management curriculum within student's clinical preceptor groups.

Years

Year 1

This year includes curriculum describing normal healthy functioning and disease processes. Basic science content is taught in the context of clinical cases. Foundational work in understanding human structure and function is paired with learning about disease. Students participate in 3D mixed reality learning of anatomy using HoloLens and HoloAnatomy software, use 3D Complete Anatomy software as well as hands-on learning of cadaveric anatomy. Students learn the foundational elements of oral health. Preclinical simulation education and dental procedural skills development include dental anatomy, masticatory dynamics/occlusion, operative dentistry and fixed prosthodontics. Students will enhance their preclinical skills through use of the SimEx Dental Augmented Reality Simulator. Digital dental technology is incorporated into the first year curriculum with use of 3D optical scanning and Compare software in Dental Anatomy and Operative Dentistry. Students complete the first year Interprofessional team-based and community service based Collaborative Practice I course.

Year 2

This year continues with an integrated approach to curricula in health and disease involving all of the clinical dental disciplines as well as oral-systemic health, with an emphasis on the development of dental clinical skills. Digital dental technologies are incorporated into the second year curriculum with digital radiology and CAD/CAM. Preclinical simulation education and dental procedural skills development include radiology, operative dentistry, fixed and removable prosthodontics, endodontics, periodontics, orthodontics, pediatric dentistry and implant dentistry. Students will enhance their preclinical skills through use of the SimEx Dental Augmented Reality Simulator. Students participate in 3D mixed reality learning of anatomy using HoloLens and HoloAnatomy & HoloNeuro software and 3D Complete Anatomy software. Further development of students as clinicians proceeds with their involvement in the clinical preceptor groups. In the pivotal 2nd year, students develop and demonstrate competency in clinical skills and didactic knowledge in order to be prepared to transition into the clinic at the beginning of the 3rd year and begin delivering patient-centered clinical care.

Year 3

Students gain clinical experience in the Comprehensive Care Clinics and take clinically-focused didactic courses to advance levels of knowledge and clinical experience. Students participate in rotations to specialty clinical areas while accomplishing comprehensive patient care. Students complete a year-long Integrated National Board Dental Examination (INBDE) Preparation Course and take the INBDE at the end of the 3rd year.

Year 4

Students continue to gain clinical experience in the Comprehensive Care Clinics, complete clinical competencies and finish didactic courses which may include enrichment courses. They participate in practice

management activities of their preceptor group, developing critical skills for general practice dentistry. 4th year students typically take the ADEX/ CDCA dental licensing exam during the middle of the 4th year.

Program Requirements

First Year Courses

Code	Title	Hours
First Term		
DSPR 136	Cariology	1
DSPR 139	Neoplasia and Genetics	1
HEWB 121	Foundations of Life Science	4.5
HEWB 130	Oral Histology	1.5
HWDP 131	Heart and Lungs in Health and Disease	4.5
LDRS 101	Collaborative Practice I A	1.5
LDRS 111	Epidemiology for Public Health and Clinical Practice	2.5
LDRS 113	Personal Finance	.5
MAHE 145	ACE: Outreach Preventive Dentistry	2
REHE 151	Dental Anatomy	3
REHE 153	Dental Anatomy Laboratory	1
Second Term		
HEWB 123	Facial Growth	1.5
HEWB 124	Masticatory Dynamics	2
HEWB 126	Masticatory Dynamics Lab	1.5
HEWB 128	Body as Host	4
HEWB 134	Head and Neck Structure and Function	4.5
HWDP 142	Gastrointestinal System in Health and Disease	2
LDRS 102	Collaborative Practice I B	1.5
LDRS 118	Ergonomics	.5
MAHE 147	ACE Clinical Outreach Preventive Dentistry	2
REHE 120	Introduction to Radiography	1.5
REHE 152	Basic Procedures in Fixed Prosthodontics	1
REHE 154	Basic Procedures in Fixed Prosthodontics Lab	1
REHE 158	Dental Materials I	.5
REHE 162	Basic Procedures in Restorative Dentistry I	.5
REHE 172	Basic Procedures in Restorative Dentistry I Lab	1

Second Year Courses

Code	Title	Hours
First Term		
HWDP 232	Renal and Hematologic Systems in Health and Disease	2
HWDP 243	Endocrine and Reproductive Systems in Health and Disease	1.5
HWDP 245	Musculoskeletal System in Health and Disease	1.5
HWDP 246	Neuroscience in Health and Disease	2
MAHE 241	Preventive Periodontics	1
REHE 257	Prosthodontic Technology	2
REHE 267	Prosthodontic Technology Lab	2
REHE 259	Basic Procedures in Fixed Prosthodontics II	1
REHE 269	Basic Procedure Fixed Prosthodontics II Lab	1.5
REHE 262	Basic Procedures in Restorative Dentistry II	1
REHE 272	Basic Procedures in Restorative Dentistry II Lab	1

REHE 264	Endodontics	.5
REHE 274	Endodontics Lab	1
REMA 261	Preclinical Orthodontics	1
Second Term		
DSPR 232	Periodontics	1
DSPR 234	Oral and Maxillofacial Pathology	3
INQU 202	Introduction to Medicine: Patient Assessment	1.5
MAHE 214	ACE: Family First	1
REHE 252	Pain Control	1
REHE 253	Basic Procedures in Esthetics	1
REHE 263	Basic Procedure in Esthetics Lab	.5
REHE 254	Pharmacology	4
REHE 256	Radiologic Interpretation	1
REHE 258	Principles of Treatment Planning I	1
REHE 260	Basic Procedures in Fixed Prosthodontics III	.5
REHE 270	Basic Procedure Fixed Prosthodontics III Lab	1
REHE 266	Partial Denture Design	3
REHE 276	Partial Denture Design Lab	2
REHE 268	Basic Procedures Competency	2
REMA 270	Introduction to Pediatrics	1

Third Year Courses

Code	Title	Hours
Summer Term		
COMP 386	Quality Assurance I	1
DSPR 333	Management of Medical Emergencies	.5
DSRE 335	Clinical Pharmacology	1.5
DSRE 395	Introduction to Oral and Maxillofacial Surgery	.5
HEWB 349	Dentofacial Morphology	1
REHE 358	Dental Materials II	.5
REMA 327	Non-Surgical Periodontal Therapy Intensive	2
First Term		
COMP 387	General Practice Dentistry A	2.5
COMP 389	General Practice Dentistry B	2.5
DSPR 341	Oral Diagnosis and Radiology	2
DSPR 344	Principles of Medicine	.5
DSRE 391	Endodontics	1
DSRE 393	Principles of Oral and Maxillofacial Surgery I	1
LDRS 317	Dental Auxiliary Management	.5
REHE 351	Surgical Periodontics	1
REHE 353	Principles of Treatment Planning II	1
REHE 355	Esthetic Dentistry	1
REHE 360	Implant Dentistry	1
Second Term		
COMP 378	Pediatric Dentistry Clinic	1.5
COMP 390	General Practice Dentistry A	2.5
COMP 394	General Practice Dentistry B	2.5
DSPR 342	Oral Cancer Diagnosis	1
DSRE 370	Principles of Oral and Maxillofacial Surgery II	1
DSRE 374	Fixed Prosthodontics	1
DSRE 392	Nitrous Oxide and Conscious Sedation	.5
DSRE 396	Temporomandibular Disorders and Occlusion	2

HWDP 300	Integrated National Dental Board Exam Preparation	1
LDRS 310	Professional Development	1
LDRS 316	Practice Management I	1
MAHE 340	Nutrition for Dentistry	1
REHE 362	Clinical Application of CAD/CAM Technologies	.5
REMA 380	Introduction to Geriatric Dentistry	1

Fourth Year Courses

Code	Title	Hours
Summer Term		
COMP 358	Clinical Oral Surgery I	1
COMP 384	General Dentistry Clinical Qualifying	1
LDRS 415	Practice Management II	1.5
REHE 413	Advanced Implant Dentistry I	1
First Term		
COMP 417	Community Oral Health Capstone Experience (graded in the spring)	1.5
COMP 422	Clinical Periodontics (graded in the spring)	1.5
COMP 427	Oral Diagnosis and Treatment Planning	1
COMP 428	Oral Diagnosis and Radiology (graded in the spring)	.5
COMP 448	Endodontics (graded in the spring)	2
COMP 458	Clinical Oral Surgery II (graded in the spring)	1
COMP 464	Operative Dentistry (graded in the spring)	2.5
COMP 468	Removable Prosthodontics (graded in the spring)	1.5
COMP 474	Fixed Prosthodontics (graded in the spring)	2.5
COMP 478	Pediatric Dentistry (graded in the spring)	1.5
COMP 480	Clinical Geriatric Dentistry (graded in the spring)	.5
COMP 482	Clinical Orthodontics (graded in the spring)	1
COMP 487	General Practice Dentistry A	2.5
COMP 489	General Practice Dentistry B	2.5
COMP 492	General Dentistry Clinical Competency (Graded in Spring)	.5
COMP 498	Quality Assurance II	1
LDRS 416	Practice Management III	1.5
LDRS 420	Jurisprudence and Professional Ethical Responsibility	.5
REHE 400	Regional Board Preparation	.5
REHE 455	General Anesthesia, Oral Surgery	.5
REHE 482	Orthodontics	1
REHE 488	Case Presentations I	1
Second Term		
COMP 417	Community Oral Health Capstone Experience	1.5
COMP 422	Clinical Periodontics	1.5
COMP 428	Oral Diagnosis and Radiology	.5
COMP 448	Endodontics	2
COMP 458	Clinical Oral Surgery II	1
COMP 464	Operative Dentistry	2.5
COMP 468	Removable Prosthodontics	1.5
COMP 474	Fixed Prosthodontics	2.5
COMP 478	Pediatric Dentistry	1.5
COMP 480	Clinical Geriatric Dentistry	.5

COMP 482	Clinical Orthodontics	1
COMP 490	General Practice Dentistry A	2.5
COMP 492	General Dentistry Clinical Competency	.5
COMP 494	General Practice Dentistry B	2.5
REHE 414	Advanced Implant Dentistry II	1
REHE 489	Case Presentations II	1

Sample Plan of Study

First Year		
Fall		Hours
DSPR 136	Cariology	1
DSPR 139	Neoplasia and Genetics	1
HEWB 121	Foundations of Life Science	4.5
HEWB 130	Oral Histology	1.5
HWDP 131	Heart and Lungs in Health and Disease	4.5
LDRS 101	Collaborative Practice I A	1.5
LDRS 111	Epidemiology for Public Health and Clinical Practice	2.5
MAHE 145	ACE: Outreach Preventive Dentistry	2
LDRS 113	Personal Finance	.5
REHE 151	Dental Anatomy	3
REHE 153	Dental Anatomy Laboratory	1
Hours		23
Spring		
HEWB 123	Facial Growth	1.5
HEWB 124	Masticatory Dynamics	2
HEWB 126	Masticatory Dynamics Lab	1.5
HEWB 128	Body as Host	4
HEWB 134	Head and Neck Structure and Function	4.5
HWDP 142	Gastrointestinal System in Health and Disease	2
LDRS 102	Collaborative Practice I B	1.5
LDRS 118	Ergonomics	.5
MAHE 147	ACE Clinical Outreach Preventive Dentistry	2
REHE 120	Introduction to Radiography	1.5
REHE 152	Basic Procedures in Fixed Prosthodontics	1
REHE 154	Basic Procedures in Fixed Prosthodontics Lab	1
REHE 158	Dental Materials I	.5
REHE 162	Basic Procedures in Restorative Dentistry I	.5
REHE 172	Basic Procedures in Restorative Dentistry I Lab	1
Hours		25
Second Year		
Fall		
HWDP 232	Renal and Hematologic Systems in Health and Disease	2
HWDP 243	Endocrine and Reproductive Systems in Health and Disease	1.5

HWDP 245	Musculoskeletal System in Health and Disease	1.5
HWDP 246	Neuroscience in Health and Disease	2
MAHE 241	Preventive Periodontics	1
REHE 257	Prosthodontic Technology	2
REHE 267	Prosthodontic Technology Lab	2
REHE 259	Basic Procedures in Fixed Prosthodontics II	1
REHE 269	Basic Procedure Fixed Prosthodontics II Lab	1.5
REHE 262	Basic Procedures in Restorative Dentistry II	1
REHE 272	Basic Procedures in Restorative Dentistry II Lab	1
REHE 264	Endodontics	.5
REHE 274	Endodontics Lab	1
REMA 261	Preclinical Orthodontics	1
Hours		19

Spring

DSPR 232	Periodontics	1
DSPR 234	Oral and Maxillofacial Pathology	3
INQU 202	Introduction to Medicine: Patient Assessment	1.5
MAHE 214	ACE: Family First	1
MAHE 242	Periodontics	1
REHE 252	Pain Control	1
REHE 253	Basic Procedures in Esthetics	1
REHE 263	Basic Procedure in Esthetics Lab	.5
REHE 254	Pharmacology	4
REHE 256	Radiologic Interpretation	1
REHE 258	Principles of Treatment Planning I	1
REHE 260	Basic Procedures in Fixed Prosthodontics III	.5
REHE 270	Basic Procedure Fixed Prosthodontics III Lab	1
REHE 266	Partial Denture Design	3
REHE 276	Partial Denture Design Lab	2
REHE 268	Basic Procedures Competency	2
REMA 270	Introduction to Pediatrics	1
Hours		25.5

Third Year**Summer**

COMP 386	Quality Assurance I	1
DSPR 333	Management of Medical Emergencies	.5
DSRE 335	Clinical Pharmacology	1.5
DSRE 395	Introduction to Oral and Maxillofacial Surgery	.5
HEWB 349	Dentofacial Morphology	1
REHE 358	Dental Materials II	.5
Hours		5

Fall

COMP 387	General Practice Dentistry A	2.5
COMP 389	General Practice Dentistry B	2.5

DSPR 341	Oral Diagnosis and Radiology	2
DSPR 344	Principles of Medicine	.5
DSRE 391	Endodontics	1
DSRE 393	Principles of Oral and Maxillofacial Surgery I	1
LDRS 317	Dental Auxiliary Management	.5
REHE 351	Surgical Periodontics	1
REHE 353	Principles of Treatment Planning II	1
REHE 355	Esthetic Dentistry	1
REHE 360	Implant Dentistry	1

Hours 14**Spring**

COMP 378	Pediatric Dentistry Clinic	1.5
COMP 390	General Practice Dentistry A	2.5
COMP 394	General Practice Dentistry B	2.5
DSPR 342	Oral Cancer Diagnosis	1
DSRE 370	Principles of Oral and Maxillofacial Surgery II	1
DSRE 374	Fixed Prosthodontics	1
DSRE 392	Nitrous Oxide and Conscious Sedation	.5
DSRE 396	Temporomandibular Disorders and Occlusion	2
LDRS 310	Professional Development	1
LDRS 316	Practice Management I	1
MAHE 340	Nutrition for Dentistry	1
REHE 362	Clinical Application of CAD/CAM Technologies	.5
REMA 380	Introduction to Geriatric Dentistry	1

Hours 16.5**Fourth Year****Summer**

COMP 358	Clinical Oral Surgery I	1
COMP 384	General Dentistry Clinical Qualifying	1
LDRS 415	Practice Management II	1.5
REHE 413	Advanced Implant Dentistry I	1

Hours 4.5**Fall**

COMP 417	Community Oral Health Capstone Experience	1.5
COMP 422	Clinical Periodontics	1.5
COMP 427	Oral Diagnosis and Treatment Planning	1
COMP 428	Oral Diagnosis and Radiology	.5
COMP 448	Endodontics	2
COMP 458	Clinical Oral Surgery II	1
COMP 464	Operative Dentistry	2.5
COMP 468	Removable Prosthodontics	1.5
COMP 474	Fixed Prosthodontics	2.5
COMP 478	Pediatric Dentistry	1.5
COMP 480	Clinical Geriatric Dentistry	.5
COMP 482	Clinical Orthodontics	1
COMP 487	General Practice Dentistry A	2.5
COMP 489	General Practice Dentistry B	2.5
COMP 492	General Dentistry Clinical Competency	.5

COMP 498	Quality Assurance II	1
LDRS 416	Practice Management III	1.5
LDRS 420	Jurisprudence and Professional Ethical Responsibility	.5
REHE 400	Regional Board Preparation	.5
REHE 455	General Anesthesia, Oral Surgery	.5
REHE 482	Orthodontics	1
REHE 488	Case Presentations I	1
Hours		28.5
Spring		
COMP 417	Community Oral Health Capstone Experience	1.5
COMP 422	Clinical Periodontics	1.5
COMP 428	Oral Diagnosis and Radiology	.5
COMP 448	Endodontics	2
COMP 458	Clinical Oral Surgery II	1
COMP 464	Operative Dentistry	2.5
COMP 468	Removable Prosthodontics	1.5
COMP 474	Fixed Prosthodontics	2.5
COMP 478	Pediatric Dentistry	1.5
COMP 480	Clinical Geriatric Dentistry	.5
COMP 482	Clinical Orthodontics	1
COMP 490	General Practice Dentistry A	2.5
COMP 492	General Dentistry Clinical Competency	.5
COMP 494	General Practice Dentistry B	2.5
REHE 414	Advanced Implant Dentistry II	1
REHE 489	Case Presentations II	1
Hours		23.5
Total Hours		184.5

Dual Degree Options

- Dental Medicine, DMD/Public Health, MPH