

DENTAL - GRADUATE CORE CURRICULUM (DADE)

DADE 9100 Clinical Microbiology

The purpose of Microbiology is to provide modern information in five broad categories: 1. Molecular biology of prokaryotic cells as it relates to oral health. 2. Basic principles of immunology as they relate to infection and immunity. 3. Infectious diseases caused by microbial agents. 4. Relationship of microbes to oral health and how microbes cause caries and periodontal disease. 5. Basic aspects of viral infections and how they related to oral health (herpes, hepatitis B and HIV)

Fall

0.5-2 Credit Hours

DADE 9101 Grand Rounds I

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.

0.25-1.25 Credit Hour

DADE 9102 Grand Rounds II

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.

0.25-1.25 Credit Hour

DADE 9103 Grand Rounds III

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.

0.25-1.25 Credit Hour

DADE 9104 Grand Rounds IV

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.

0.25-1.25 Credit Hour

DADE 9105 Grand Rounds V

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.

0.25-1.25 Credit Hour

DADE 9106 Grand Rounds VI

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.

0.25-1.25 Credit Hour

DADE 9107 Grand Rounds VII

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.

0.25-1.25 Credit Hour

DADE 9108 Grand Rounds VIII

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.

0.25-1.25 Credit Hour

DADE 9110 Ethics

The program includes the core basic science courses, designed to encompass the the various disciplines basic to advanced studies in the science and practice of dentistry. They are designed to expose students to modern concepts in the areas covered with the objective of updating and expanding upon their predoctoral knowledge of oral biology. The courses are designed to meet the requirements of the different specialty organizations. All programs are presented on an academic term basis.

Fall

0.25 Credit Hours

DADE 9120 Genetics, Embryology

The treatment of patients with cleft lip/palate and other types of craniofacial anomalies in the United States has improved dramatically, many children still receive care that is substantially inferior to what can or should be provided. Inadequate care results from diagnostic errors, failure to recognize and treat the full spectrum of health problems associated with these anomalies, unnecessary and poorly timed treatment, and inappropriate or poorly performed procedures. This course will inform of these persistent problems. Embryology lecture is an overview of the field from its 19th Century with Hegel and "Ontogeny recapitulates Phylogeny" to the 21st century research on "Evo-Devo" and the HOX development genes and their relations to the contemporary understanding of embryological development including stem cells.

Fall

0.25 Credit Hours

DADE 9140 Maxillofacial Radiology

This course is intended to supplement the basic science course by radiographically showing dissimilar pathoses that appear similar on x-rays.

Fall

0.25 Credit Hours

DADE 9150 Nitrous Oxide Analgesia

This course is designed to provide didactic and clinical instruction in nitrous oxide/oxygen analgesia in accordance with American Dental Association Guidelines. Upon completion of this course, the participant will be eligible for an Anesthesia Restricted Permit II from the Pennsylvania State Board of Dentistry. Participants will have the opportunity to administer (to each other and patients) and undergo nitrous oxide sedation under close supervision. The course is geared to general dentists and dental specialists.

0.75-1.5 Credit Hour

DADE 9160 Practice Management

Practice Management Lectures and clinical experiences provide students with foundation knowledge regarding the policies and procedure governing practice.

0.25-0.75 Credit Hours

DADE 9170 Pathology

Pathology is a course that will apply what students have already learned to the study of disease. It is an essential link between the basic and clinical sciences concerned with the mechanisms of disease (e.g., inflammation, neoplasia, and immunopathology) and the disease processes that students will encounter during their careers in dentistry. While the emphasis will be on oral pathology, one must also be familiar with systemic diseases that may impact on the health of the patients.
0.25 Credit Hours

DADE 9180 Pulp/Dentin Biology

Biology of Pulp/Dentin Complex Microcirculation COURSE GOALS/ OBJECTIVES: 1. To give the student an understanding of the normal and abnormal biology of the dentin pulp complex. 2. To provide the student with fundamental information on clinically related subjects such as pain control and pulp capping procedures. 3. To provide the student with a general knowledge of the literature related to pulp biology. 4. To review the various physiological methods of investigating pulpal tissue.
0.25 Credit Hours

DADE 9190 Head and Neck Anatomy

The purpose of this lecture series is to review the principal anatomy comprising the stomatognathic system. The lectures build on the knowledge of head and neck anatomy acquired in dental school and integrate clinical relevance to this important subject. Slide presentations are employed to teach the anatomical structures of the major head and neck morphologic systems.
0.75 Credit Hours

DADE 9191 Grand Rounds IX

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9192 Grand Rounds X

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9193 Grand Rounds XI

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9194 Grand Rounds XII

This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9200 Advance Library

0.25 Credit Hours

DADE 9210 Cultural Competency

Participants in this workshop will assess their beliefs and awareness around cross cultural communication and diversity and inclusiveness. Through lecture, group participation, skill practice, role-play, case studies, and coaching they learn to advance their skill levels and take communication to the next level. Participants will also be recorded at the opening and conclusion of the to assess skill development.
0.25 Credit Hours

DADE 9220 Pharmacology

Pharmacology is both a basic science and a clinical science. It builds on the foundation of anatomy, biochemistry, physiology, and pathology and bridges the gap into clinical dentistry. This course in basic pharmacology will give the students a better understanding of drugs, interpreting complicated drug/medical histories, and understanding drug reactions
0.5 Credit Hours

DADE 9230 Osteoimmunology

This is a web based course with face to face review sessions prior to in class testing over course material. The material for the course will be presented to students via the online interface. This course covers topics from the text book "osteoimmunology" and from supplemental material provided on Canvas. The The course directors will be available by phone, appointment or email for a one hour period each week to address questions. In addition, 90 minute review sessions will be held prior to each exam.
2 Credit Hours

DADE 9240 Oral Medicine

There are numerous conditions that affect the oral and maxillofacial region, including oral mucosal diseases, temporomandibular joint disorders, orofacial pain syndromes and salivary gland dysfunction. Patients presenting with these disorders can be challenging to diagnose and manage. Several techniques are available for evaluation of these conditions and will guide the clinician toward proper diagnosis. Management protocols vary based upon the specific affecting the oral and maxillofacial region. This course will highlight the etiology, clinical presentation, diagnostic techniques, and management protocols of several conditions, including oral mucosal diseases, temporomandibular joint disorders, orofacial pain syndromes, and salivary gland disorders.
0.25 Credit Hours

DADE 9250 Nutrition & Oral Health

0.25 Credit Hours

DADE 9260 Wound Healing

The course includes information given by experts in the basic and/or clinical sciences. The first seven lectures cover the basic biologic aspects of wound healing. These are followed by a series of five lectures discussing wound healing in a more clinical context covering the topics of fracture repair, osseointegration, orthodontics, endodontics and periodontics.
2 Credit Hours

DADE 9280 Biostatistics

This course will provide a summary of the main statistical concepts needed to to make decisions based on data. Some of the material that will be covered includes: data displays, summary statistics, probability distributions and expectation, statistical inference procedures for univariate and bivariate data, linear regression models, and analysis of variance. You will learn how to test a hypothesis, which includes phrasing a hypothesis, making a rationale choice of experimental design, choosing the statistics best suited to test the hypothesis, and assessing the results with standard errors, confidence intervals, and p-values.
1 Credit Hour

DADE 9290 Pulp/Dentin Biology

0.25 Credit Hours

DADE 9300 Maxillofacial Trauma

0.25 Credit Hours

DADE 9310 Core Curriculum I

5.5 Credit Hours

DADE 9320 Core Curriculum II

5.5 Credit Hours

DADE 9330 Ethics, Professionalism and Jurisprudence

The program includes the core basic science courses, designed to encompass the the various disciplines basic to advanced studies in the science and practice of dentistry. They are designed to expose students to modern concepts in the areas covered with the objective of updating and expanding upon their predoctoral knowledge. Practice Management Lectures and clinical experiences provide students with foundation knowledge regarding the policies and procedure governing practice. In the workshop portion of the course, participants will assess their beliefs and awareness around cross cultural communication and diversity and inclusiveness. Through lecture, group participation, skill practice, role-play, case studies, and coaching they learn to advance their skill levels and take communication to the next level. Participants will also be recorded at the opening and conclusion of the to assess skill development.

Fall

1-3 Credit Hours

DADE 9340 Evidence-based clinical practice

This course will provide a summary of the main statistical concepts needed to to make decisions based on data. Some of the material that will be covered includes: data displays, summary statistics, probability distributions and expectation, statistical inference procedures for univariate and bivariate data, linear regression models, and analysis of variance. You will learn how to test a hypothesis, which includes phrasing a hypothesis, making a rationale choice of experimental design, choosing the statistics best suited to test the hypothesis, and assessing the results with standard errors, confidence intervals, and p-values.

Fall

1.75-3 Credit Hours

DADE 9350 Oral and systemic diseases

The Oral and Systematic Diseases course follows several distinct topics, including Genetics, congenital malformation/embryology, pharmacology, head and neck anatomy, among others. The treatment of patients with cleft lip/palate and other types of craniofacial anomalies in the United States has improved dramatically, many children still receive care that is substantially inferior to what can or should be provided. Inadequate care results from diagnostic errors, failure to recognize and treat the full spectrum of health problems associated with these anomalies, unnecessary and poorly timed treatment, and inappropriate or poorly performed procedures. This course will inform of these persistent problems. Embryology lecture is an overview of the field from its 19th Century with Hegel and "Ontogeny recapitulates Phylogeny" to the 21st century research on "Evo-Devo" and the HOX development genes and their relations to the contemporary understanding of embryological development including stem cells. Pathology is a course that will apply what students have already learned to the study of disease. It is an essential link between the basic and clinical sciences concerned with the mechanisms of disease (e.g., inflammation, neoplasia, and immunopathology) and the disease processes that students will encounter during their careers in dentistry. While the emphasis will be on oral pathology, one must also be familiar with systemic diseases that may impact on the health of the patients. Pharmacology is both a basic science and a clinical science. It builds on the foundation of anatomy, biochemistry, physiology, and pathology and bridges the gap into clinical dentistry. This course in basic pharmacology will give the students a better understanding of drugs, interpreting complicated drug/medical histories, and understanding drug reactions

Fall

3.75-5 Credit Hours

DADE 9360 Oral infection and immunity

TBD

Fall

4-6 Credit Hours

DADE 9370 Conservative and regenerative clinical practice

TBD

Spring

2-5 Credit Hours

DADE 9380 Vulnerable populations across the lifespan

TBD

Spring

1.5-3.5 Credit Hours

DADE 9701 Introduction to Biostatistics

Introduction to Biostatistics for MSOB students

2.5-5 Credit Hours

DADE 9702 Introduction to Systematic Reviews

Introduction to Systematic Reviews for MSOB students

2.5-4 Credit Hours

DADE 9711 Oral Biology Seminar

Oral Biology Seminar

0.5-1.5 Credit Hour

DADE 9712 Oral Biology Seminar Spring

Oral Biology Seminar Spring

0.5-1.5 Credit Hour

DADE 9713 Oral Biology Seminar I

Oral Biology Seminar I

0.5-1.5 Credit Hour

DADE 9714 Oral Biology Seminar II

Oral Biology Seminar II

0.5-1.5 Credit Hour

DADE 9721 MS Research Thesis Practicum I

MS Research Thesis Practicum I

8-11 Credit Hours

DADE 9722 MS Research Thesis Practicum II

MS Research Thesis Practicum II

4-7 Credit Hours

DADE 9723 MS Research Thesis Practicum III

MS Research Thesis Practicum III

8-12 Credit Hours

DADE 9724 MS Research Thesis Practicum IV

MS Research Thesis Practicum IV

8-12 Credit Hours

DADE 9725 MS Research Thesis Practicum V

MS Research Thesis Practicum V - extension course

8-11 Credit Hours

DADE 9731 Introduction to Systematic Reviews Fall

Introduction to Systematic Reviews for MSOB students, fall course

1-4 Credit Hours

DADE 9732 Introduction to Biostatistics Spring

Introduction to Biostatistics for MSOB students, spring course

1.5-3.5 Credit Hours

DADE 9791 MS Research Thesis Practicum Fall

MS Research Thesis Practicum Fall - this course is for standalone MSOB students.

Fall

21-23 Credit Hours

DADE 9801 Levy Research Seminars I

Levy Research Seminars I

0.25-1.5 Credit Hour

DADE 9802 Levy Research Seminars II

Levy Research Seminars II

0.25-1.5 Credit Hour

DADE 9803 Levy Research Seminars III

Levy Research Seminars III

0.25-1.5 Credit Hour

DADE 9804 Levy Research Seminars IV

Levy Research Seminars IV

0.25-1.5 Credit Hour

DADE 9805 Levy Research Seminars V

Levy Research Seminars V

0.25-1.5 Credit Hour

DADE 9806 Levy Research Seminars VI

Levy Research Seminars VI

0.25-1.5 Credit Hour

DADE 9807 Levy Research Seminars VII

Levy Research Seminars VII

0.25-1.5 Credit Hour

DADE 9808 Levy Research Seminars VIII

Levy Research Seminars VIII

0.25-1.5 Credit Hour

DADE 9891 Levy Research Seminars IX

Levy Research Seminars IX

0.25-1.5 Credit Hour

DADE 9892 Levy Research Seminars X

Levy Research Seminars X

0.25-1.5 Credit Hour

DADE 9893 Levy Research Seminars XI

Levy Research Seminars XI

0.25-1.5 Credit Hour

DADE 9894 Levy Research Seminars XII

Levy Research Seminars XII

0.25-1.5 Credit Hour

DADE 9901 DScD Research I

DScD Research I

3-7 Credit Hours

DADE 9902 DScD Research II

DScD Research II

12-14 Credit Hours

DADE 9903 DScD Research III

DScD Research III

3-7 Credit Hours

DADE 9904 DScD Research IV

DScD Research IV

15-17 Credit Hours

DADE 9905 DScD Research V

DScD Research V

3-7 Credit Hours

DADE 9906 DScD Research VI

DScD Research VI

15-17 Credit Hours

DADE 9907 DScD Research VII

DScD Research VII

9-12 Credit Hours

DADE 9908 DScD Research VIII

DScD Research VIII

15-17 Credit Hours

DADE 9910 Guest Lecture Series

1 Credit Hour

DADE 9991 DScD Research IX

DScD Research IX

14-18 Credit Hours

DADE 9992 DScD Research X

DScD Research X

17-19 Credit Hours

DADE 9993 DScD Research XI

DScD Research XI

14-17 Credit Hours

DADE 9994 DScD Research XII

DScD Research XII

17-19 Credit Hours