

ADVANCED EDUCATION PROGRAMS

Chair, Advanced Education Committee:

Mary P. Walker, DDS, PhD, Associate Dean for Research and Graduate Programs

The School of Dentistry offers curricula leading to advanced education dental certificates in each of four clinical dental specialty areas (Endodontics, Orthodontics and Dentofacial Orthopedics, and Periodontics) and a certificate in Advanced Education in General Dentistry (AEGD). In addition, the School of Dentistry offers curricula leading to Master of Science graduate degrees in either Oral and Craniofacial Sciences or Dental Hygiene Education. The School participates in the Interdisciplinary PhD program through the Department of Oral and Craniofacial Sciences (OCS). The OCS department research focus areas are: Biomaterials/Bioengineering of Biological Tissues & Replacements, Mineralized Tissue Biology and Translational and Clinical Research.

Application Information & Deadlines

Application Information

All applicants to the advanced education certificate programs (Advanced Education in General Dentistry, Endodontics, Orthodontics and Dentofacial Orthopedics, and Periodontics) require the Postdoctoral Application Support Services (PASS) application available at www.adea.org (<http://www.adea.org>). All sections of the PASS application should be completed fully. Official dental school transcripts should be submitted directly to PASS. A minimum dental school 3.0 GPA is required for applicants to all Advanced Education programs. National dental board scores should be reported in the PASS "institutional evaluation" form. Since the NBDE scores are reported on the "Institutional Evaluation," official scores do not need to be sent to UMKC.

The GRE is required for all applicants applying to the Orthodontics program and is highly recommended for those applying to the Periodontics program. (For any Periodontics or Endodontics selected applicants interested in applying later for concurrent enrollment in the OCS MS program, the GRE will be required.) Applicants to the Endodontics program are required to take the Advanced Dental Admission Test (ADAT). The ADAT is preferred but not required for Advanced Education in General Dentistry; and for the Periodontics program, ADAT is not required, but optional. Across programs, scores should be self-reported on the PASS application. Official GRE scores should be submitted directly to UMKC (GRE code is 6872). Be aware that approximately three weeks are required by the service to process PASS applications and deliver them to the designated programs. The length of this processing period should be considered by the candidate in order to meet relevant application deadlines. **An applicant copy of the PASS application should not be sent to UMKC.**

Applicants applying to any of the advanced education programs must be a U.S. citizen or permanent resident. Applicants must also submit evidence of graduation from a school of dentistry accredited by the American Dental Association or the Canadian Dental Association.

Residents accepted into the Endodontics, Orthodontics, and Periodontics programs must successfully complete a U.S. regional or equivalent Canadian clinical licensure exam prior to or no later than the end of the first year of residency.

All applicants are required to submit the **Institutional Evaluation AND Professional Evaluation Form (PEF)** as part of their completed PASS application.

A minimum of three professional evaluators (dental faculty) are required to submit evaluations for the PEF. Additional letters of recommendation should not be sent to UMKC.

Additional information, as identified below, must be submitted directly to the UMKC School of Dentistry, Office of Student Programs, 650 East 25th Street, Kansas City, MO 64108.

- Official transcripts from degree granting undergraduate and graduate institution(s). Additionally, if a large number of pre-dental prerequisites were taken outside the degree granting institution, those transcripts should be submitted too. (Applicants do not need to submit dental school transcripts since they are provided to us through PASS).
- A copy of permanent resident card (if applicable).
- A copy of dental license (if applicable).
- A UMKC application and application fee are required of all applicants. Upon receipt of your PASS materials you will be emailed a link to the general UMKC application

Additional resumes, CVs, personal photos, or information not received as part of the PASS application will be destroyed upon receipt.

The advanced education certificate programs in Periodontics or Orthodontics & Dentofacial Orthopedics participate in the **National Matching Services (MATCH)** process. Candidates to these programs must also register for this service within the ADEA PASS applicant portal (www.adea.org (<http://www.adea.org>)). There are two phases of the MATCH process, each with its deadline date for receipt of Rank Order List forms from applicants. The Phase I deadline (typically toward the end of November each year) is for applicants to the Periodontics or Orthodontics & Dentofacial Orthopedics program.

General admissions questions concerning advanced education programs should be directed to the Office of Student Programs at (816) 235-6322. However, specific questions regarding any advanced education program should be directed to the pertinent program director. Advanced education program directors along with their telephone numbers are identified in a subsequent section.

Application Deadline

Application deadline dates for advanced dental certificate programs are as follows:

Advanced Education in General Dentistry	October 1
Endodontics	August 1
Orthodontics	September 1
Periodontics	August 1

The deadline date for receipt of applications at the school is one year before the anticipated enrollment in program.

Financial Assistance

Please be advised that the information provided here is of a general nature only.

Newly admitted advanced dental education students (such as AEGD, Endodontics, Orthodontics, and Periodontics) will receive information regarding financial aid. Students who are interested in obtaining financial aid are advised to contact the Hospital Hill Financial Aid Office for more details and guidance.

Hospital Hill Financial Aid Office - Location Address: 1418 Health Sciences Building on UMKC Hospital Hill Campus.
Office Hours: 8:00am-5:00pm Monday-Thursday
(816) 235-6783
FinAidHospitalHill@umkc.edu

There are three types of financial aid for advanced education students:

1. Federal Stafford Unsubsidized Loans
2. Federal Graduate PLUS Loans
3. Private Student Loans

Separate financial aid applications are required for the summer term and for the fall/spring terms. Students apply for loans via the FAFSA website www.fafsa.gov (<http://www.fafsa.gov>). It is advised that students consult the Hospital Hill Financial Aid Office for the priority application deadline and guidance in the application process.

Enrollment Fees

Typical credit hour enrollment for advanced education students is 5 credits in the Summer semester and 6 credit hours in the Fall and Spring semesters. This enrollment model applies for AEGD, Endodontics, Orthodontics and Dentofacial Orthopedics, and Periodontics certificate programs.

When taking 6 credit hours or fewer each semester, Missouri non-residents are not required to pay the out-of-state tuition rate. To estimate costs for attendance, please visit the cashier's website: <http://www.umkc.edu/finadmin/cashiers/dentistry-tuition-fee-rates.asp>.

Academic Standards/Procedures: Advanced Education Students

The following academic standards and the procedures to be used in dealing with cases of academic difficulty apply to students in all advanced education/graduate programs of the School of Dentistry.

Standards of Scholarship

1. Advanced education students, regardless of classification, must maintain a 3.0 (B) GPA for all coursework taken at UMKC.
2. Advanced education students must maintain a 3.0 (B) GPA in their dental certificate specialty coursework.
3. Any materials pertaining to patient records, program records, and any materials produced in relation to an Advanced Education or Graduate Program are the property of the University. Such materials include photos, study models, case presentations, research proposal, research data, thesis, research-related presentations and must be saved and preserved at designated storage sites. While students can have copies of presentations, data, and written documents for their records, students should not remove or delete these files and associated information from school computers and server spaces. Compliance with this policy is mandatory for continued program participation and graduation and will be monitored.

Probation Policy

Whenever the overall GPA for UMKC courses taken for credit by an advanced education student of any classification falls below 3.0 (B), the student's status for the next term becomes "On probation - See principal graduate advisor." The principal graduate advisor will review the student's progress and provide counsel, and the following conditions apply:

1. Any advanced education or graduate student on probation who is not restored to good academic standing by the end of two successive semesters will be declared ineligible to re-enroll.
2. While on probation, an advanced education or graduate student must achieve a 3.0 term GPA to enroll for the ensuing term.
3. An advanced education or graduate student on probation will not be restored to good standing until a cumulative graduate-credit GPA of at least 3.0 is achieved.

Dismissal

Following Academic Probation

1. An advanced education or graduate student who is on probation and fails to attain an overall GPA of at least 3.0 by the end of two successive semesters will be dismissed from the program.
2. An advanced education or graduate student who is on probation and fails to attain a 3.0 term GPA for the succeeding term will be dismissed.
3. An advanced education or graduate student who receives more than four credit hours of 2.0 (C) grades or a D or F grade in any course will be dismissed.

Due to Unsatisfactory Progress or Performance

When an advanced education program, irrespective of a student's grade-point average, considers an advanced education student's performance to be unsatisfactory, the Program Director may recommend to Associate Dean for Research & Graduate Programs that the student be declared ineligible for further study. The Associate Dean reviews the recommendation and discusses with the Advanced Education Committee prior to notifying the student of the decision.

Appeal

Any student who is dismissed from the program has the right to appeal that decision. Appeals shall be made in writing to the Associate Dean for Research and Graduate Programs within one week from the time the student received a notice of dismissal. The Associate Dean for Research and Graduate Programs in conjunction with the Chair of the Advanced Education Committee shall select a hearing panel of five members of the Advanced Education Committee to hear the student's appeal. At least one member of the hearing panel will be a student. The program director of the program in which the appealing student is enrolled shall be ineligible to sit on the panel. The Hearing Panel will be chaired by the Associate Dean for Research and Graduate Programs. A meeting of the Hearing Panel will be scheduled within two weeks of the receipt of the student's appeal. During the time the appeal process is being conducted the student shall be allowed to continue in the program. The Hearing Panel shall be provided with written statements from the student and the Program Director as well as all relevant records and documents. Both the Program Director and his or her designee and the appealing student must attend the hearing to provide additional information and answer questions from the Hearing Panel. Other individuals who have information relevant to the situation may be invited to present their information and answer questions for the committee. The student may have an advisor present to advise the student, but this advisor shall be limited to providing advice to the student.

After reviewing the information and conducting the hearing, the Hearing Panel shall make its recommendation regarding disposition of the case to the Dean. All five appointed members of the hearing panel shall have a vote. In case of a tie, the Associate Dean for Research and Graduate Programs shall cast the deciding vote. The Dean of the School of Dentistry will make the final decision and communicate that decision to the student and the Program Director.

Students in Cooperative Programs

Students enrolled in programs operated jointly by the School of Dentistry, School of Medicine, and other institutions, such as Children's Mercy Hospital and Truman Medical Center, must remain in good standing with both organizations cooperating in the program. A student who is dismissed by either of the cooperating institutions is ineligible to continue in the program.

Graduate

Advanced Education Certificate Programs

- Dental Advanced Education Certificate Programs:
 - Advanced Education in General Dentistry
 - Endodontics
 - Orthodontics and Dentofacial Orthopedics
 - Periodontics

Biological Sciences Courses

BIO-SCI 5700 Biomaterials Teaching Credits: 2

Through this course, students will acquire teaching experience in graduate and undergraduate biomaterials.

BIO-SCI 5706 Growth and Development I Credit: 1

A course designed to teach the general principles of normal and abnormal physical, psychological and social growth and development of children and adolescents. The growth and development of the craniofacial structures is emphasized. The diagnosis of malocclusions is stressed. Consideration is given to possible approaches to their treatment.

BIO-SCI 5707 Growth and Development II Credits: 1-2

A comprehensive study of the genetical aspects of growth and development with special analysis of the molecular control of these processes by both intrinsic and epigenetic factors.

Prerequisites: BIO-SCI 5706.

BIO-SCI 5710 Genetics and Biochemistry of Cranial Facial Biology Credits: 2

Biochemistry of oral structures and the effect of oral diseases on these structures. This course may not be used to satisfy Cell Biology and Biophysics or Molecular Biology and Biochemistry discipline-specific requirements for the Interdisciplinary Ph.D. programs.

BIO-SCI 5739 Biomaterials for the Dental Specialist Credit: 1

Discussion of basic biomaterials principles and terminology including explanation of physical, mechanical and surface chemical properties, metallurgy, polymer chemistry, ceramics and composites. Clinical examples of how these principles apply to Prosthodontics, Endodontics and Orthodontics will be presented. Students cannot take both this course and BIO-SCI 5742 for credit.

BIO-SCI 5740 Oral Pathology I Credits: 2

A study of the clinical and histopathologic features of oral diseases, including inflammatory, degenerative, metabolic, and neoplastic diseases and developmental disturbances.

BIO-SCI 5742 Biomaterials for the Restorative and General Dentist Credits: 2

A thorough discussion of basic biomaterials principles and how they apply to the practice of general and restorative dentistry. Students cannot take both this course and BIO-SCI 5739 for credit.

BIO-SCI 5743 Advanced Seminar in Dental Biomaterials Credits: 1-2

The use and behavior of dental biomaterials in Pediatric Dentistry, Prosthodontics, Orthodontics, and Restorative Dentistry will be discussed in depth. Current basic and clinical literature related to these areas will be discussed and research information to improve dental practice will be presented.

Prerequisite: BIO-SCI 5739 (or BIO-SCI 5742).

BIO-SCI 5747 Research Instrumentation Used in Dental Biomaterials Credits: 2-4

A discussion and laboratory use of instrumentation employed in dental biomaterials research. Practical hands-on experience will include calibration and use of specific research equipment including the Instron, metallurgical mounting and polishing equipment, measuring microscope, metallograph, and contact angle goniometer.

BIO-SCI 5750 Special Problems in Dental Biomaterials Credits: 2-4

The student will select or be assigned a special research problem including appropriate literature reviews of a special topic in dental biomaterials. Emphasis will be placed on the correlation between basic and clinical research. The design and conduct of clinical research will be discussed.

BIO-SCI 5751 Elements of the Scientific Method Credits: 1-2

Through individualized instruction with thesis committee chair, student will conduct a literature review in preparation for developing a research question leading to the thesis research proposal. Students will select and rotate through a minimum of four laboratories in the Department of Oral Biology conducting a short research project in each. At the end of the semester, a report is required reviewing the research project and the instrumentation in each laboratory. Students are also required to attend the weekly Department of Oral Biology Seminar Series and the monthly Professional Development Seminar Series. Research presentations cover a variety of biological, engineering and psychological disciplines relevant to oral science education and the oral health care profession. Presentations will be by faculty, students, and invited guest lecturers.

BIO-SCI 5752 Research Methods in Oral and Craniofacial Sciences Credits: 1-5

Student will write the thesis research proposal in consultation with committee chair and members plus obtain appropriate IRB and/or IACUC approvals. For the MS degree qualifying exam, the student will write the research proposal, present the research proposal at a committee meeting, and answer related questions. Following the successful completion of the qualifying exam, the research proposal is the basis of the MS thesis project. As the student identifies a research focus for the dissertation project, they will begin reviewing the literature.

BIO-SCI 5759 Special Problems in Pharmacology Credits: 2

Pharmacologic and therapeutic problems of special interest in the practice of dentistry.

BIO-SCI 5760 Physiology of Oral Mineralized Tissues Credits: 2

A study of the physiology of the oral hard tissues with emphasis on the mechanisms of the growth, remodeling, and healing of maxillomandibular bones and on the mechanism of dentinogenesis. This course may not be used to satisfy Cell Biology and Biophysics or Molecular Biology and Biochemistry discipline-specific requirements for the Interdisciplinary Ph.D. program.

BIO-SCI 5780 Teaching Of Dentistry Credits: 1-2

A consideration of the problems of teaching in dental schools. Each department of the School of Dentistry will report on its teaching methods. The student will observe lectures and laboratory teaching in each department.

BIO-SCI 5790 Directed Research In Oral and Craniofacial Sciences Credits: 1-6

Student utilizes beginning research skills to design, conduct and report an individual research project under the direction of the faculty.

BIO-SCI 5799 Research And Thesis Credits: 1-9

The satisfactory completion of an original research project. Results of the research and critical review of the pertinent literature are incorporated into a thesis. Credit is awarded after the student's thesis is successfully defended and accepted by the School of Graduate Studies.

BIO-SCI 5801 Readings in Immunology Credits: 1-3

A detailed study of special topics in immunology. Specific topics to be arranged with the instructor. This course may be repeated by doctoral students for a maximum of 3 credit hours.

Prerequisites: LS-MCRB 435.

BIO-SCI 5802 Immunopathology Credits: 2

A detailed study of selected topics in immunopathology with emphasis on physicochemical barriers such as cutaneous and mucosal immune systems.

Prerequisites: LS-MCRB 435.

BIO-SCI 5805 Molecular Biology of Oral Microflora Credits: 2-3

Lecture and discussion. The course will provide an overview of the ecology of oral microbial flora and its role in oral health and disease. Students will examine the taxonomy and ecology of normal and pathogenic oral microbial flora, acquisition of the oral microbiota and the formation of dental plaque as a biofilm. The course will also explore other aspects of microbial biology, such as; bacterial virulence factors and pathogenesis; host defense mechanisms; systemic complications of periodontal disease; antibiotics and antibiotic resistance. The second part of the course will review the effect of recent advances in molecular biology and protein biochemistry on oral diagnosis and treatment.

BIO-SCI 5830 Structural Characterization of Dental Biomaterials Credits: 3

A detailed study of the techniques commonly used to determine the composition and structure of dental biomaterials. Surface and near-surface characterization techniques will be emphasized. The student will be expected to complete laboratory projects on the scanning and transmission electron microscopies available in the School of Dentistry.

BIO-SCI 5899 Required Graduate Enrollment Credit: 1

Dentistry Courses

DENT 6305 Operative Dentistry I Lecture Credit: 1

An introduction to the prevention and principles of the restorative treatment of dental caries.

DENT 6305L Operative Dentistry I Laboratory Credits: 2

Restorative procedures discussed in DENT 6305 are performed on laboratory manikins.

DENT 6306 Transitions: An Introduction to the Profession and Practice of Dentistry Credits: 0.5

This course is the first in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the knowledge, skills and values of ethics, professionalism and practice management. The courses use self-assessment and strategic planning as foundations and lead the students through identification of personal and professional aspirations, and culminate in building each student's competence in dental practice management.

DENT 6307 Transitions: Introduction to the Profession & Practice of Dentistry II Credits: 0.5

This course is the second in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course builds on strategic planning foundation to gain an understanding of personal financial management in the context of personal and professional goals in the field of dentistry.

DENT 6310C Patient Care I Credits: 3

This course introduces the dental student to the foundation knowledge and skills and values for the provision of oral health care. This includes infection control, cubicle set-up and breakdown, dental assisting, patient/operator positioning, patient vital signs, radiographic techniques, patient communication and basic concepts of oral health and disease. Students will assist third and fourth year students in various clinical areas after appropriate preparation, and will provide oral hygiene instruction for elementary age students.

DENT 6312 Dental Behavioral Science I Credits: 1-2

An introduction to the basic principles of behavioral science as they relate to oral self-care and professional practice. Topics include basic principles of human behavior, adherence, motivational interviewing, dental fears, chronic orofacial pain, and conflict management. Students will complete an in-depth motivational case report and a communication competency exam with selected patients.

DENT 6313 Applied Biochemistry Credits: 4

This is a course geared to the biomedical foundation knowledge of dental students. The course is composed of six sections focused on clinically important topic areas each cumulating with a clinical presentation. Course content will intentionally emphasize new knowledge areas in cancer, inflammation, genetic diseases, metabolic diseases, mineralized tissues in health and disease, oral health, hormone action, and blood coagulation/wound healing.

Prerequisites: an Undergraduate Biochemistry course.

DENT 6314C Patient Care II Credits: 2

This course builds on the skills introduced in DENT 6310C with a review and the continuation of the clinical rotations. In addition, students will learn the steps of a basic oral diagnosis, and will demonstrate their understanding with graded peer exams and by performing selected portions of a diagnosis on two clinic patients with the assistance of a 3rd or 4th year dental student.

DENT 6315C Patient Care III Credits: 3

This course introduces preventive theory necessary to provide patient care. Students are introduced to fundamental clinical procedures including dental deposits, gingival assessment, identification and classification of periodontal diseases, and periodontal probing. The information learned in this course continues in fall, second year (Patient Care IV) where student are introduced to basic periodontal instrumentation skills to assess and treat simple patients.

DENT 6316 Dental Morphology Credits: 3

This lecture/laboratory course introduces the student to the anatomy of the oral cavity and structures of the stomatognathic system. A thorough review of dental anatomy and dental terminology of the primary and permanent dentition will be presented. The students' knowledge of dental morphology will be reinforced by constructing wax models of permanent dentition.

DENT 6317 Fundamentals of Occlusion and Fixed Prosthodontics Credits: 3

This lecture laboratory course will review the fundamental principles of dental occlusion, the anatomy and function of the stomatognathic system, and foundational knowledge of fixed prosthodontics.

DENT 6319 Ethics and Professionalism Credit: 1

An introduction to basic concepts of ethics and professionalism. Systems of ethical decision making are introduced and applied in the context of oral health care and interprofessional practice. Students will explore their own ethical values and apply this knowledge to issues in professional education.

DENT 6328 Clinical Decision Making in Dentistry Credits: 1-2

An experiential course that uses current controversies in to facilitate development of skills needed for making valid decision in clinical dentistry. Students will apply basic principles of database searching, research design and methodology to the critical analysis of contemporary dental literature. This one-hour course will: 1) Provide you with sufficient information to perform week on the portions of the national boards that deal with research design and methodology; and , 2) give you skills sufficient to search for, locate, and evaluate valid information related to clinical questions in contemporary dentistry.

DENT 6350 Introduction To The Histopathology Of Oral Tissues Credits: 2

A comparison of the microscopic anatomy of healthy and diseased oral tissues.

DENT 6352 Patient Care IV Credits: 1-3

This course is a continuation of DENT 6310C, DENT 6314C, and DENT 6315C which introduces preventive theory and the instrumentation skills necessary to provide patient care. Students are introduced to fundamental clinical procedures including plaque control, gingival assessment, and periodontal probing. Review of radiology, radiographic technique and interpretation, assisting skills, diagnosis and periodontal instrumentation will be implemented in this course.

DENT 6390 Dental Research Experience Credit: 1

This independent study course focuses upon experience gained in both an area of dental research as well as the process of research in working with an established dental researcher.

DENT 6402 Transitions: Introduction to the Profession and Practice of Dentistry III Credits: 0.5

This course is the third in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course builds on strategic planning foundation established in year one to gain an understanding planning for development of a dental practice.

DENT 6403 Transitions: Introduction to the Profession & Practice of Dentistry IV Credits: 0.5

This course is the fourth in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues the strategic planning framework as the dental practice business plan is developed. The focus for this course is on managing the finances of a dental practice.

DENT 6410 Operative Dentistry II Lecture Credit: 1

A continuation of DENT 6305. Principles of cavity preparation, materials and techniques are stressed.

DENT 6410L Operative Dentistry II Laboratory Credits: 2

A continuation of DENT 6305L. Restorative procedures are performed on laboratory manikins and extracted teeth.

DENT 6411 Operative Dentistry III Lecture Credit: 1

A continuation of DENT 6410.

DENT 6412 Introduction to Oral Surgery & Pain Management I Credit: 1

This course introduces students to foundational concepts of oral surgery and pain management. The course consists of lectures, demonstration and pre-clinical practice and simulation in the safe and effective use of local anesthetics in dentistry and basic intraoral surgical procedures. This course includes patient assessment for intraoral procedures, and instrumentation and techniques required to anesthetize a patient and extract teeth. Students will participate in practical experiences to begin to build skills in the necessary techniques to manage patient's pain and perform basic surgical procedures.

DENT 6414 Pathology I Lecture Credits: 4

The general etiology of disease; circulatory and metabolic disorders; degenerative processes; inflammation; infection and immunity; tumors; and organ system pathology.

DENT 6415 Pathology II Credits: 2

A study of developmental defects, inflammatory diseases, and neoplasia of the oral region.

DENT 6416 Complete Removable Prosthodontics Credit: 1

This course will introduce the dental student to concepts and procedures involved in the rehabilitation of the completely edentulous patient. Information presented will include proper clinical examination techniques, an evaluation of the findings and their impact on treatment and treatment options. The student will become familiar with the clinical steps involved in the fabrication of complete dentures and the rationale supporting these procedures. Laboratory steps as they relate to clinical treatment procedures will also be discussed. There will be additional information presented regarding single complete dentures, immediate dentures, overdentures, implant-retained complete dentures, and rebasing and relining techniques.

DENT 6416L Complete Removable Prosthodontics I Laboratory Credits: 2

This course will introduce the student to the clinical and laboratory steps involved in the fabrication of complete dentures. Students will learn how to manipulate the materials involved as well as indications for their usage. The course will be structured to closely resemble the clinical experience in concept and techniques where feasible. The goal is to teach the skills necessary to manage edentulous patients and also to teach in detail the entire process of complete denture fabrication. This will enhance overall dental skills and provide a knowledge base with which to critically evaluate laboratory procedures and results. This laboratory course provides the student the opportunity to acquire the foundational skills, which must be mastered before clinical competency, can be attained. A goal of the course is to provide the opportunity for the student to acquire the hand/eye skills, which are necessary to treat the edentulous patient in a clinical setting.

DENT 6417 Removable Partial Prosthodontics Credit: 1

The study of the terminology, design, theory, and basic procedures in removable partial denture construction in addition to diagnosis and treatment planning will be stressed through the lectures.

DENT 6417L Removable Partial Prosthodontics Laboratory Credits: 2

In the laboratory the students will learn to plan, design, and prepare the mouth for a prosthesis. They will demonstrate understanding of concepts and methods by applying them to the solution of problems. The student will: develop critical thinking and problem solving related to diagnosis, planning and treatment; make decisions based on current empirical and published evidence; make custom trays for final impression, and record bases and wax rims for recording jaw relationship.

DENT 6420 Periodontics I Credits: 2

It is the scope of this course to introduce the basic disease mechanisms involved in the evolution of the inflammatory periodontal lesion; i.e., the interaction of the host tissues with the oral microbial flora. The course will cover the entire range of possible periodontal diseases, ranging from simple marginal gingivitis to AIDS related necrotizing ulcerative periodontitis. Further, the course will continually reinforce the science of periodontology and its overwhelming relationship to the clinical practice of periodontics.

DENT 6422 Fixed Prosthodontics I Lecture Credit: 1

This course is designed to provide the foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of single teeth with fixed prosthodontic restorations. The topics covered also include provisional restorations, impressions materials and technique, dental cements, and laboratory aspects involved in the fabrication of cast gold crowns.

DENT 6422L Fixed Prosthodontics I Laboratory Credits: 2

The second course in the fixed prosthodontic curriculum is designed to provide foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of missing teeth with fixed partial dentures and implants.

DENT 6423 Fixed Prosthodontics II Lecture Credit: 1

The second course in the fixed prosthodontic curriculum is designed to provide foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of missing teeth with fixed partial dentures and implants.

DENT 6423L Fixed Prosthodontics II Laboratory Credits: 2

The second laboratory course in fixed prosthodontics is focused on the replacement of missing teeth with fixed partial dentures and implant restoration. Projects build the skills to begin development of clinical competence in fixed partial dentures and implant restorations.

DENT 6424 Dental Management of the Medically Complex Patient Credits: 2

This course focuses on the understanding of medical conditions and compromised states that patients present with, enabling the clinician to develop dental treatment plans that are safe and compatible with their medical status.

DENT 6426 Oral Radiology Lecture Credits: 2

Radiation physics, radiation biology, quality assurance, imaging principles, radiation hygiene, radiographic interpretation and techniques of intra-oral survey are presented.

DENT 6429 Dental Behavioral Science II Credit: 1

This course builds upon the foundational material with a focus on dealing with challenging patients and managing professional stress. Students will complete an in-depth anxiety management project and communication competency exam with selected patients.

DENT 6431 Pediatric Dentistry I Lecture Credit: 1

The overall goal of this didactic course is to provide the student with the fundamental knowledge necessary to provide comprehensive dental care to pediatric patients. In addition, this course strives to develop an attitude towards learning such that the student will seek opportunities to further his/her knowledge and skills in pediatric dentistry subsequent to graduation. Finally, this course is intended to sensitize students to their responsibility as health care providers for the children in their community.

DENT 6435 Endodontics I Lecture Credit: 1

An introductory course in endodontics emphasizing pulp and periapical biology and pathology. Extra emphasis will be placed on endodontic diagnosis of non-odontogenic facial pain, problems with anesthesia in endodontics and treatment planning.

DENT 6436 Orthodontics: Growth And Development Credit: 1

Certain malocclusions and dental deformities can occur due variations in growth and normal developmental process. In order to treat and understand these problems, an in-depth and thorough understanding of craniofacial growth and development is necessary. Understanding how and when the face and head is actively growing will enable the clinician to redirect facial growth to reduce the severity of forming skeletal/ dental malocclusions. Since orthodontic treatment may involve the modification and/or manipulation of skeletal growth, it is important not only to understand dental development but also physical, physiologic and psychosocial development. This course is designed to address these needs.

DENT 6439 Medical Emergencies in the Dental Office Credit: 1

The purpose of this course is to comprehensively review the management of common medical emergency situations that a dentist is likely to encounter in the dental office. In this course, the students will gain a thorough understanding of the preventive measures and appropriate response to medical emergencies including the appropriate use of the Emergency Medical System. Moreover, pertinent information regarding the patho-physiology associate with common medical emergencies will be discussed.

DENT 6440 Introduction to Oral Surgery & Pain Management II Credit: 1

This course builds on the fundamental concepts in oral surgery and pain management presented in Dent 6412 to prepare students for patient care in oral surgery and management of pain for provision of dental care. The lectures will focus on treatment needs of the medically compromised surgical patient, ability to safely and adequately deliver local anesthesia, non-pharmacological management of pain as well as OTC and prescription medications for pain management. The course will also focus on appropriate case selection for a general dentist. In the pre-clinical lab portion of the course, students will participate in exodontia simulation and local anesthesia administration.

DENT 6442 Endodontics II Lecture Credit: 1

A continuation of the study of endodontics emphasizing non-surgical endodontics, surgical endodontics and post-endodontic treatment.

DENT 6442L Endodontics Laboratory Credits: 2

The preparation and filling of root canals of extracted teeth in the laboratory setting.

DENT 6460C Review of Pre-Clinical Dentistry Credits: 0.5

A combination of online lectures, selected readings and independent study designed to reinforce and integrate concepts contained in the pre-clinical dental curriculum.

DENT 6501C Intro to Comprehensive Patient Care Credits: 1-10

The purpose of this course is to introduce the student to the clinical environment and to familiarize him/her with comprehensive patient care. In addition, it allows the student to develop and interpret basic diagnostic aids that enable him/her to arrive at a diagnosis and treatment outline, the beginning steps of comprehensive care. Patient care is provided following the outlined treatment plan. The student will apply the principles/concepts of patient care. Students begin treatment of a "family" of patients under faculty supervision.

DENT 6502 Grand Rounds I Credit: 1

Students prepare to develop and present oral reports typically given at professional meetings such as case presentations, table clinics, research reports or presentatons of new techniques (such as in Table Clinic requirements or Senior Grand Rounds). This course will expand on the student's basic knowledge of critical review of scientific literature and information literacy. Cases and problems in denistry and oral health will be the context for identification and application of current valid scientific literature. This course seeks to foster an attitude of critical analysis and commitment to life-long learning.

DENT 6509C Comprehensive Patient Care I Credits: 1-10

Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6510C Comprehensive Patient Care II Credits: 1-10

Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6514 Pathology III Lecture Credit: 1

Continued study of pathological conditions of the oral region with emphasis on clinical signs and symptoms.

DENT 6515 Periodontics II Credit: 1

The overall goal of this course is to help the pre-doctoral students to recognize periodontal disease and treatment plan the needed periodontal therapy. Specific goals are to enhance the student's knowledge of the surgical aspects of periodontal therapy, and the relationship of periodontal disease and its treatment to the overall dental treatment plan.

DENT 6518 Transitions: Introduction to the Profession & Practice of Dentistry V Credit: 1

This course is the fifth course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues the strategic planning framework and focuses on practice building strategies.

DENT 6520 Transitions: Introduction to the Profession & Practice of Dentistry VI Credit: 1

This course is the sixth course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues with the strategic planning framework and focuses on the skills, knowledge and attitudes necessary for the day to day leadership of a dental practice.

DENT 6521 Oral Surgery III Credit: 1

This course is a continuation of the principles and techniques in Oral Surgery Pain Management II, but now relates to more advanced forms of oral surgical patient care. The areas to be covered are the diagnosis, treatment planning and management of impacted teeth, surgical complications, pre-prosthetic surgery, maxillary sinus in disease/dentoalveolar surgery, odontogenic infections, odontogenic cysts and odontogenic tumors afflicting the maxillofacial structures.

DENT 6521C Periodontics Clinical I Credits: 1-2

Clinical application of those principles taught in preceding terms.

DENT 6522 Oral Surgery IV Credit: 1

This course is a continuation of DENT 6521 Oral Surgery III. This course is structured to help the student acquire a basic understanding of the advanced aspects of the specialty of Oral and Maxillofacial Surgery. This includes the process of diagnosis, surgical and adjunctive management of diseases, deformities and malformations of the oral cavity, jaws and associate structures. Moreover, this course also covered principles and techniques of sedation used in oral and maxillofacial surgery.

DENT 6524 Principles of Oral Medicine and Diagnosis Credit: 1

This course expands upon the student doctor's knowledge of oral medicine, diagnosis, and pathology, and its interrelationship at times with systemic disease. Dental management, treatment and the appropriate use of consultations and referrals are emphasized.

DENT 6526 Orthodontics I Credit: 1

Orthodontics I is a course designed to introduce the student to the field of orthodontics. The lecture will introduce the student to basic orthodontic terminology, description, diagnosis, and mechanotherapy. This course will prepare the student for the clinical treatment of patients needing limited tooth movement.

DENT 6526L Orthodontics I Laboratory Credits: 2

This is a course designed to introduce the student to the field of orthodontics. The laboratory enables the student to master the materials of orthodontics in order to complete diagnostic records, to construct fixed and removable appliances, and to be familiar with tooth movement mechanics. This course will prepare the student for clinical treatment of patients needing limited tooth movement.

DENT 6527 Pharmacology and Therapeutics I Credits: 2

An introduction into the mechanisms of action, pharmacodynamics and relevant pharmacokinetics for drugs prescribed and used by patients seen by the dentist. The course is administered through the Blackboard Course Management System and will involve live and/or recorded lectures directed at "mastery learning" of introductory pharmacology where students receive objectives, attend class, and complete reading assignments expected to assist in achieving a high level of mastery.

DENT 6531C Oral Diagnosis Clinical I Credits: 1-2

Clinical application of diagnostic principles. Students will complete a diagnostic competency examination on a selected patient.

DENT 6534 Advanced Prosthodontics Credit: 1

This course reviews advanced principals in Fixed and Removable Prosthodontics. Using evidenced based concepts, information will be presented to aid the student clinician make well informed clinical choices which will help prepare them for the use of prosthodontic techniques in the practice of general dentistry. A variety of materials, devices, and concepts will be presented. Making intelligent choices in the selection and use of these restorative materials and concepts will be a focus.

DENT 6537 Oral Oncology Credits: 0.5

A lecture course on oral oncology will deal with the biologic aspects of cancer; the detection of oral cancer and the different modalities of treatment of cancer; the dental aspects both from surgical reconstruction and prosthetic reconstruction following cancer surgery; and management of the patient prior to, during, and following radiation therapy to the head and neck and during chemotherapy for systemic cancer.

DENT 6538 Orthodontics II Credit: 1

This course will present a variety of topics related to orthodontics, such as: normal development, abnormal occlusal deviations during the developing permanent dentition, diagnosis and treatment planning of orthodontic problems, biomechanical principles in orthodontics, adolescent vs. adult orthodontics, periodontal health during orthodontic treatment, complications associated with orthodontic treatment and controversial aspect of orthodontics. You should also be able to recognize which kind of cases exceed the scope of limited treatment and may require intervention by a specialist.

DENT 6542C Operative Dentistry Clinical I Credits: 1-2

Clinical application of those principles taught in preceding terms.

DENT 6551CR Oral Surgery Clinical Credits: 2

This is a course for application of principles taught in didactic courses (DENT 6412, DENT 6439, DENT 6440, DENT 6521, DENT 6522, and DENT 6610) and the Oral Surgery Rotations. Oral Surgery Clinical is designed to prepare the dental student with the necessary didactic and clinical skills to properly evaluate patients and provide Oral Surgery care in a safe effective and caring manner and to evaluate competency in two areas: managing medical emergencies and oral surgical skills expected of a general dentist.

DENT 6556 Radiographic Interpretation Credit: 1

This is a comprehensive multidisciplinary course in radiologic interpretation of normal anatomy, anomalies, dental caries, periodontal disease, periapical pathology and infections of the maxilla and mandible.

DENT 6558C Treatment Planning I Credit: 1

DENT 6559 Diagnosis and Management of Orofacial Pain Credit: 1

Essential conceptual, clinical and technical information and skills necessary in the diagnosis and treatment of Orofacial Pain States. Diagnostic protocols and radiographic procedures and their integration as it relates to painful head and neck conditions are presented in depth. Differential diagnosis and special diagnostic techniques are also addressed. Behavioral factors associated with the development of chronic pain and complicating the management of pain states are identified and discussed.

DENT 6562C Removable Prosthodontics Clinical Credit: 1

This course reflects the clinical aspects of Removable Prosthodontics. The application of didactic learning and foundational skills is practiced and evaluated. By treating multiple and varied patients needing complete dentures and those needing removable partial dentures, the student should become competent to diagnose and treat the routine and uncomplicated edentulous and partially edentulous patient with removable prostheses.

DENT 6564 Pharmacology and Therapeutics II Credits: 2

This course will provide the background necessary for the dentist to become knowledgeable about the drugs their patients may be taking and their related medical conditions. Lecture topics include the diseases and medical conditions commonly seen in dental patients on an outpatient basis. The course presents the effects, mechanisms of action, dosage forms, and relevant pharmacokinetics for the drugs used in the management of these diseases. The course will cover the important side-effects of precautions of drugs that are pertinent to the dental patient for their safe management.

DENT 6566 Bridge Course Credits: 2

This course is designed as a lecture and clinical course to provide a transition into the clinical phase of the dental curriculum for the third year dental student.

DENT 6591C Professional Development I Credits: 1-2

Clinical application of those principles taught in preceding terms.

DENT 6592C Professional Development II Credits: 1-2

Clinical application of those principles taught in preceding terms.

DENT 6593C Professional Development III Credits: 1-2

Clinical application of those principles taught in preceding terms.

DENT 6595 Introduction To Implant Dentistry Credit: 1

To provide the undergraduate student with a solid background into the role of implant dentistry in their profession. Advances in technique and materials which are responsible for improved predictability will be presented. Emphasis will be on patient selection, treatment planning and basic restorative techniques. The student will be able to initiate uncomplicated dental implant procedures with this information and will be prepared to enter into more advanced continuing education and graduate programs in this subject.

DENT 6600 Review Of Clinical Dentistry Credits: 1-2

A summative review of the basic areas of clinical dentistry.

DENT 6601C Endodontics Clinical Credits: 1-2

Clinical application of principles taught in preceding terms.

DENT 6602 Grand Rounds II Credit: 1

This course is a continuation of Grand Rounds I and its aim is similar to Grand Rounds I: expand on the dental student's basic knowledge of critical review of scientific literature and information literacy. Students will present a Table Clinic at Midwest Dental Conference and prepare a proposal for their senior Grand Rounds presentation.

DENT 6603 Grand Rounds III Credit: 1

The fourth year Grand Round course is an independent study courses designed to develop the evidence-based research skills required to keep abreast of current concepts in dentistry; develop case documentation skills necessary for continued professional development, and develop professional public speaking skills.

DENT 6604 Grand Rounds IV Credit: 1

The fourth year Grand Round course is an independent study courses designed to develop the evidence-based research skills required to keep abreast of current concepts in dentistry; develop case documentation skills necessary for continued professional development, and develop professional public speaking skills.

DENT 6605 Review Of Clinical Dentistry II Credits: 0.5

A review of foundation knowledge for clinical dentistry.

DENT 6606C Pediatric Dentistry Clinical I Credits: 1-2

Clinical application of those principles taught in preceding terms.

DENT 6607C Pediatric Dentistry Clinical II Credits: 1-2

Clinical application of those principles taught in preceding terms.

DENT 6608C Pediatric Dentistry Clinical III Credits: 1-2

Clinical application of those principles taught in preceding terms.

DENT 6609C Comprehensive Patient Care III Credits: 1-10

Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist.

This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6610C Comprehensive Patient Care IV Credits: 1-10

Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist.

This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skill through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6611C Fixed Prosthodontics Clinical I Credits: 1-2

Clinical application of principles taught in preceding terms.

DENT 6613 Periodontal Treatment Planning Credit: 1

DENT 6614 Dentistry For The Special Patient Credits: 1-2

The purpose of this course is to acquaint the student with the dental treatment of three populations of patients who you may encounter in your dental career (and often have trouble finding adequate care). They include patients who are developmentally disabled, the elderly, and the medically-compromised. The course will present management techniques for in-office treatment and appropriate referral of those patients best treated in another setting. This course builds upon the skills and knowledge gained in previous courses in many disciplines, to provide an interdisciplinary experience with special patient populations. A required rotation at the Regional Center for the Developmentally Disabled gives practical experience to topics covered in lecture.

DENT 6614C Comprehensive Patient Care V Credits: 1-10

Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist.

This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skill through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6615 Transitions: Introduction to the Profession & Practice of Dentistry VII Credit: 1

This is the seventh course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues with the strategic planning framework and focuses on the development of a dental practice business plan.

DENT 6616 Transitions: Introduction to the Profession and Practice of Dentistry VIII Credits: 0.5

This course is a continuation of a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course allows fourth year dental students to apply concepts and principles presented in the previous practice management courses in the Innovation Center and in small group seminars. A series of small group seminars will allow for in-depth discussion of professional issues.

DENT 6617 Pediatric Dentistry Seminar Credits: 0.5

This course is designed to allow fourth year students to build on the concepts presented in DENT 6431. Using a seminar format, students will review pediatric dentistry concepts with emphasis on clinical application.

DENT 6621C Periodontics Clinical II Credits: 1-2

Clinical application of those principles taught in preceding terms.

DENT 6625 Oral Surgery Clinical II Credit: 1

Oral Surgery II is a continuation of Oral Surgery I and is designed to certify students' competency in oral surgery, including managing patient pain and anxiety, i.e. nitrous oxide-oxygen sedation

DENT 6626 Clinical Treatment Planning Credit: 1

This course builds on the didactic courses and clinical experiences in treatment planning. Each student will demonstrate competency in comprehensive treatment planning to earn credit in the course.

DENT 6633 Introduction To Dental Public Health Credit: 1

Discussion of contemporary issues in community health and community oral health with emphasis on preparing students for their roles as professional members of their communities.

DENT 6634 Community-Based Dental Education (CODE) I Credit: 1

The purpose of this course is to expose third and fourth year dental students to alternative methods of dental care delivery to populations at high risk for dental disease. Specifically the course places junior and senior students in an existing network of community health centers and rural outreach sites

DENT 6635 Community-Based Dental Education (CODE) II Credit: 1

Prerequisites: DENT 6634, Completion of Third Year.

DENT 6636C Oral Radiology Clinical Credit: 1

Clinical application of those principles taught in preceding terms with emphasis on use of a variety of film holding devices. Radiographic quality assurance and darkroom maintenance will be reviewed during this course.

DENT 6642C Operative Dentistry Clinical II Credits: 1-2

Clinical application of those principles taught in preceding terms.

DENT 6650 Applied Ethics Credits: 0.5

Four or five case studies will be used during seminars. Basic ethical principles from DENT 6306 will be applied to the case studies. Two of the cases will involve ethical issues, and one of the cases will add community dentistry issues. Other cases will be used as generated or suggested by each seminar group.

DENT 6656C Orthodontic Clinical I Credit: 1

The purpose of this course is to allow each student to develop the skills, knowledge and values to diagnose potential or actual malocclusions and manage patient who need orthodontic intervention.

DENT 6690 Independent Study in Dentistry Credits: 1-6

This course provides students the opportunity to undertake independent study projects in specific areas of dentistry. Course may be repeated.

DENT 6691C Professional Development IV Credits: 1-3

Clinical application of those principles taught in preceding terms.

DENT 6692C Professional Development V Credits: 1-2

Clinical application of those principles taught in preceding terms.

Dental Hygiene Courses

DENT-HYG 3000 Dental Morphology And Occlusion Credits: 2

Designed to provide the dental hygiene student with a sound knowledge base in dental morphology and occlusion through discussion and laboratory experiences. Students will learn to identify anatomical structures of each tooth and be able to communicate these findings effectively with colleagues and patients in both verbal and written forms. The clinical application and relevance of dental morphology in the practice of dental hygiene will be emphasized. Special consideration will be given to root morphology as it relates to periodontal instrumentation. Activities will include: identification of extracted teeth, terminology exercises, dental charting experiences and identifying classifications of occlusion.

DENT-HYG 3020 Dental Radiology Credits: 2

Lecture and clinical practice of dental radiographic procedures. Topics included are radiation hygiene, taking and developing radiographs, processing and mounting films, and radiographic interpretation. Clinical experience is required throughout the remaining semesters.

DENT-HYG 3030 Introduction to Histopathology of Oral Tissues Credits: 2

A comparison of the microscopic anatomy of healthy and diseased oral tissues. The major goal of this course is to integrate basic sciences (embryology, descriptive histology, and cell biology of oral tissues) with clinical sciences. The gap between the basic and clinical sciences is not always easy to bridge; this course is designed to bridge the "gap." This course provides students with an introduction to oro-facial histology and embryology and pathology that may arise from the tissues of the head, neck, and oral cavity.

Prerequisites: Dental hygiene student.

DENT-HYG 3080 Introduction to the Preventive Practice of Dental Hygiene Credits: 4

This course will introduce theories and rationales for basic clinical dental hygiene care (infection control, oral examination and fundamentals of instrumentation) in diverse populations. Practical application of specific clinical skills will be introduced in the classroom and applied in the clinical setting.

DENT-HYG 3080L Preclinical Dental Hygiene Credits: 2

This course emphasizes the practical application of the fundamental concepts and principles of patient care in a diverse society discussed in DENT-HYG 3080. Emphasis is placed on patient assessment and techniques of instrumentation for examination and dental hygiene treatment. After the student has mastered basic skills, he/she will begin to provide direct dental hygiene services.

DENT-HYG 3200 General and Oral Pathology Credits: 2-3

An introduction to the principles of general pathology and organ system pathology including inflammation, immunity and diseases of immune origin, genetic diseases, neoplasia with emphasis on oral cancer, and diseases of selected organ systems including pulmonary, cardiovascular, hematopoietic, endocrine, skeletal, gastrointestinal, hepatic, pancreatic and other systems as time permits.

DENT-HYG 3210 Applied Nutrition and Biochemistry Credits: 2

This course introduces biochemistry and nutrition, encouraging identification of sources and application of specific nutrients for health. Contents familiarize students with roles of nutrition and places emphasis on the hygienist's role as nutritional educator- utilizing skills of recognition, prevention and treatment of related disease(s) and support of good oral health. Topics build on previous knowledge of chemistry, biology and physiology in application to health, coupled with deficient/optimal nutrition. Students will utilize motivational interviewing pertaining to counseling to help patients assign values, prioritize, and meet agreed upon goals. The format will include face-to-face lectures, online supplements, short labs, and group assignments/presentations.

Prerequisites: CHEM 211 and CHEM 211L; LS-PHYS 217.

DENT-HYG 3220 Dental Biomaterials Credits: 2

This course is designed to provide the dental hygiene student with a sound knowledge base in the science and manipulation of dental biomaterials. Through lectures and laboratory session, the student's ability to make clinical judgments regarding the application of dental biomaterials and the ways in which materials react to the oral environment will be enhanced.

DENT-HYG 3260 Principles Of Periodontics Credits: 2

This course in Periodontics will cover the biological and clinical aspects of periodontal health and pathology. An introduction to the supporting structures of the teeth will provide the foundation of understanding pathogenesis, histopathology and subsequent therapeutic treatment of periodontal diseases. The dental hygienist's role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is examined.

DENT-HYG 3280C Dental Hygiene Clinic I Credits: 3

Students will further develop clinical skills and techniques learned in DENT-HYG 3080L and previous courses by providing services to patients.

DENT-HYG 3285 Seminar In Dental Hygiene I Credits: 2-3

This course expands on theory and background presented in DENT-HYG 3080. Topics include expanding dental hygiene skills required for the care of patients and continued development of problem solving abilities and critical thinking skills as they relate to the provision of dental hygiene care. Provide students with a more insightful view of the role of the dental hygienist in the delivery of comprehensive patient care.

DENT-HYG 3300 Radiographic Interpretation Credits: 0.5

The purpose of the course is to introduce interpretation of radiographic anomalies and pathology just prior to the clinical experience. Since there was little time for an emphasis on radiographic interpretation during your second year radiology course, this lecture and participation course supplement clinic instruction in diagnosis of the patient's oral needs and formulation of a treatment plan. Upon completion of this course, the student should be able to recognize simple pathology and radiographic anomalies.

DENT-HYG 3320 Oral Health Behavior Change Credits: 3

The purpose of this hybrid course is to prepare the junior dental hygiene student to effectively assess and individualize preventive oral health care through the use of brief motivational interviewing. The course will include evidenced based information in dental caries and caries risk assessment, caries preventive measures, introduction to periodontal disease, dental stains, and management of xerostomia, halitosis, and dentinal sensitivity, oral healthcare products and how to care for an oral appliance. The student will subsequently apply course concepts to facilitate patient behavior change in the clinical setting. Recommended preparation: a course in General Psychology.

DENT-HYG 3340 Principles Of Public Health Credits: 2

This course introduces the student to principles of public health, the field of epidemiology, health care delivery systems, public health terminology and teaching methodologies to use in culturally diverse community settings. Students will have the opportunity to assess a target population, plan, implement and evaluate appropriate programs. Students will also apply theories and skills of communication and education while preparing and presenting oral health education programs for various population groups.

DENT-HYG 4001 Clinical Oral Radiology Credit: 1

Clinical application of radiology principles taught in preceding terms. To provide clinical skills to safely make and interpret radiographic images for the provision of oral health care.

DENT-HYG 4020 Local Anesthesia And Pain Control Credits: 3

This course is designed to prepare dental hygiene students for the safe, effective administration of local anesthesia and nitrous oxide sedation. Included are content areas in anatomy, physiology, pharmacology, and emergency management as they relate to the administration of local anesthetics, nitrous oxide, and pain control. Laboratory sessions are structured to develop actual experiences in administration of local anesthetics and nitrous oxide. Various mechanisms for pain control are also covered. Methods of presentation include lecture, large group discussion, laboratory and clinical participation.

DENT-HYG 4040 Foundations of Teaching Credits: 2

This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design and practical and effective instructional strategies. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations and developing course management sites.

DENT-HYG 4050 Periodontics II Credit: 1

This course in Periodontics will provide an introduction to Phase II and III therapy. Periodontal decision making will be emphasized. The dental hygienists' role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is further examined.

Prerequisites: DENT-HYG 3260.

DENT-HYG 4060C Dental Hygiene Clinic II Credits: 2

The student will continue to develop competency in basic dental hygiene skills. Principles of periodontal techniques, such as non-surgical periodontal therapy, supportive treatment procedures and comprehensive patient care in a diverse society will be emphasized. The student will be asked to demonstrate professional management skills and productivity.

DENT-HYG 4065 Seminar in Dental Hygiene II Credit: 1

This seminar course is offered in conjunction with DENT-HYG 4060C, and expands upon theory and background presented in other dental hygiene courses within the curriculum which will involve further development of their critical thinking/problem solving skills regarding patient care. Students will be provided with further instruction regarding advanced instrumentation, cultural diversity, motivational interviewing and other technological advancements utilized in dental hygiene care.

Co-requisites: DENT-HYG 4060C.

DENT-HYG 4080 Introduction to Research and Evidence Based Decision Making Credits: 2

This is a lecture/discussion course with assigned exercises in the research process and evaluating scientific studies. Students will apply basic principles of research design and methodology to the critical analysis of contemporary oral health related literature focusing on the review and evaluation of literature as it relates to the practice and profession of dentistry and dental hygiene with the intent of utilizing an evidence-based approach to care.

DENT-HYG 4100 Pharmacology Credits: 3

An overview and introduction to the major drug groups and common drugs taken by dental outpatients. Course includes the basic principles and general theories of drug action, basic pharmacokinetics, their mechanisms of action and therapeutic uses and the relative dental significance of each.

DENT-HYG 4110 Introduction to Research Methodologies Credits: 2

This is a lecture/discussion course with assigned exercises in the research process and evaluating scientific studies. Students will learn the basic principles involved in research design and methodology and will apply those principles to the critical analysis of contemporary health related literature. Focus on the review and evaluation of literature as it relates to the practice and profession of dentistry with the intent of utilizing an evidence-based approach to care will be stressed.

DENT-HYG 4115 Practicing in the Dental Hygiene Public Health Safety Net Credits: 3

The course is designed to increase the knowledge base of the practicing dental hygienist in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence based treatment, school based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure.

DENT-HYG 4120C Dental Hygiene Clinic III Credits: 4

The student will continue to develop competency in intermediate dental hygiene skills. Principles of periodontal techniques, such as root planning, pain control and supportive techniques will be stressed. Comprehensive treatment planning and implementation of comprehensive care to a diverse patient population will be the focus of this course. Continued development of professionalism, management and critical thinking skills will be emphasized.

DENT-HYG 4125 ECP III Training Course Credits: 2

The ECP III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

DENT-HYG 4130 Introduction to Instructional Technologies and Online Learning Credit: 1

The web-based multimedia course will examine the mediated communication process using Internet tools and is designed to help the incoming student become prepared to succeed in their degree program using online technologies. Students will examine the changes and challenges associated with mediated synchronous and asynchronous technologies. The course will be delivered in four different modules.

DENT-HYG 4150 Portfolio Capstone Credit: 1

The capstone course serves as the culminating experience for students in the BSDH Degree Completion Program. During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for the BSDHDC program—in the form of an e-Portfolio.

DENT-HYG 4210 Practice Management Credits: 3

Current relevant issues impacting dental hygiene practice are discussed. Dental practice economics, communicating and management in a diverse society are included. Also included in this course is the study of jurisprudence as it relates to the practice of dental hygiene.

DENT-HYG 4240 Ethics In Professional Practice Credit: 1

Study of ethics and ethical issues related to the practice of dental hygiene within a diverse society. Includes application of ethical principles to real-life situations.

DENT-HYG 4260 Senior Seminar Credits: 2

This course serves as a means of synthesizing information from all courses in the dental hygiene curriculum and applying content to patient cases and practice management issues. Case-based learning (CBL) will be utilized to review significant content areas as well as to introduce subjects not previously encountered during previous clinical experiences. Case based/problems based learning (PBL) with faculty facilitation will assist students in managing patient cases. This course is also designed to assist in preparing senior dental hygiene students for the written and clinical examinations required for licensure.

DENT-HYG 4260C Dental Hygiene Clinic IV Credits: 4

The student will have the opportunity to reach competency in all clinical skills. Emphasis will be placed on decision-making, problem-solving, critical thinking, appointment and time management. The course will focus on comprehensive dental hygiene care to a diverse population.

DENT-HYG 4320 Special Patient Care Practicum Credits: 2-4

Through outside agency affiliation, students will have the opportunity of applying the course content from Principles of Public Health, Dental Health Education and DHE-Practicum. Sites for participation include hospitals, nursing homes, and residential and day activity centers for developmentally disabled.

DENT-HYG 4340 Community Dentistry Practicum Credits: 2-4

The community dentistry practicum provides the student with an opportunity for personal exploration of the many settings of community dentistry. These experiences may lead the students into clinical activities or design and implementation of dental health educational programs. The student will have the opportunity to work with various community health professionals in the Kansas City area. The student will need reliable transportation and should expect some experiences to require travel.

DENT-HYG 4350 Periodontal Therapy Practicum Credits: 1-4

This course is designed for the dental hygiene student who desires increased experience with periodontal skills. The course involves practical experience in the graduate periodontics clinic working with a periodontology resident. Two clinic sessions per week; one seminar scheduled weekly.

DENT-HYG 4360 Practice Management Practicum Credits: 3

Current relevant issues impacting dental hygiene practice are discussed. Dental practices, economics, communication and management are included. Practical application of course would include the development of a dental office operating manual.

DENT-HYG 4380 Research Practicum Credits: 2-4

This course provides an opportunity to apply the content in the previous course Introduction to Research Design. The protocol identified may be a basic science, clinical or community dental hygiene problem. The field experience may deal with a basic or applied, descriptive or explanatory research question.

DENT-HYG 4500 Seminar on Issues in Higher Education for Health Professionals Credits: 2-4

This course is designed to introduce the student to matters encountered in higher education. specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, case-based learning, accreditation, promotion and tenure, and assessment.

DENT-HYG 4600 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4

This course is designed for the graduate and degree completion dental hygiene student and expand on the student's basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and lifelong learning.

DENT-HYG 4620 Introduction to Educational Methodology Credits: 3

This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.

DENT-HYG 4625 Dental Hygiene Administration Credits: 2

This course is designed for the post-certificate dental hygiene student. Major topic areas include accreditation of dental hygiene programs, the impact of National and State Board examinations on curriculum planning, selective admissions policies and procedures, faculty evaluation, promotion and tenure and students' rights.

DENT-HYG 4630 Practicum in Dental Hygiene Administration Credits: 2-4

Under the supervision of the Director of Dental Hygiene, the student will gain actual experiences in the daily administration of a dental hygiene program. The student may contract for responsibilities such as admissions, budget preparations, course scheduling, report writing and student academic counseling.

DENT-HYG 4635 Practicum In Clinical Supervision Credits: 2-4

Under the supervision and permission of the Dental Hygiene Clinical Supervisor, the student will gain actual experience in the duties involved in coordinating the clinical education of a dental hygiene student. The student may contract for responsibilities such as, coordinating mock board examinations, maintaining student clinical records, developing faculty and student clinic schedules and report writing.

DENT-HYG 4640 Student Teaching and Conference I Credits: 2-4

Under the direction of a supervising professor, the student may select teaching experience in the classroom areas of their choice. The student develops behavioral course objectives, comprehensive lesson plans, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.

Prerequisites: DENT-HYG 4040, DENT-HYG 4620.

DENT-HYG 4650 Student Teaching and Conference II Credits: 2-4

The student will continue to develop teaching skills in laboratory and/or classroom areas as selected by the student under the direction of a supervising professor.

Prerequisites: DENT-HYG 4640.

DENT-HYG 4660 Independent Study in Dental Hygiene Credits: 1-4

This course is designed for the dental hygiene student who desires independent study of a particular problem or area of interest in dental hygiene education.

DENT-HYG 4680 Dental Hygiene Clinical Instruction I Credits: 2-4

Continued development of competency as a clinical instructor under the supervision of the dental hygiene faculty. Requires a half-day in clinic student instructor.

Prerequisites: DENT-HYG 4640.

DENT-HYG 4685 Dental Hygiene Clinical Instruction II Credits: 1-4

A continuation of DENT-HYG 4680. Under the supervision of the dental hygiene faculty, students may continue to develop skills as a dental hygiene clinical instructor.

Prerequisites: DENT-HYG 4680.

DENT-HYG 5500 Introduction to Educational Methodology Credits: 3

This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.

DENT-HYG 5502 Foundations of Teaching Credits: 2

This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations, developing course management sites, and test development.

Prerequisites: Must be a student enrolled in the MSDHE program.

DENT-HYG 5510 Student Teaching and Conference I Credits: 2-4

Student teaching experience in classroom areas as selected by the student under the direction of a supervising professor. The student develops behavioral course objectives, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.

Prerequisites: DENT-HYG 4040, DENT-HYG 5500.

DENT-HYG 5512 Student Teaching and Conference II Credits: 2-4

This course is designed to provide the graduate dental hygiene student with additional experience in classroom teaching. Student teaching experiences will be selected by the student under the direction of and in conference with a supervising professor.

DENT-HYG 5516 Special Issues in Higher Education for Health Professional Credits: 3

This course is designed to introduce the student to matters encountered in higher education - specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, motivational interviewing, accreditation, promotion and tenure, and social media.

DENT-HYG 5530 Clinical Instruction and Conference I Credits: 2-4

Students will actively participate in clinical instruction under the supervision of a dental hygiene faculty member. Topics relative to clinical teaching will be discussed in weekly seminars. Students will be encouraged to apply knowledge gained in DENT-HYG 4620 and DENT-HYG 5500 during clinical instructional experiences. Additionally the student must participate in at least 1 day of clinic per week to equal another credit hour of course work.

DENT-HYG 5532 Clinical Instruction and Conference II Credits: 2-4

This course is a continuation of DENT-HYG 5530. Under the supervision of the dental hygiene faculty, the student will continue to develop skills as a dental hygiene clinical instructor.

Prerequisites: DENT-HYG 5530.

DENT-HYG 5553 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4

This course is designed for the graduate and degree completion dental hygiene student and will expand on the student's basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and life-long learning.

DENT-HYG 5560 Practicum in Clinical Supervision and Management Credits: 2-4

Practical experience in functioning as a Clinic Supervisor. Clinical managerial projects will be assigned according to students' interests and goals by agreement between student and instructor.

DENT-HYG 5565 Advanced Special Patient Care Practicum I Credits: 1-4

This course is designed to familiarize the student with general principles of cancer therapy and the role of the dental team in the multidisciplinary care of patients undergoing oncology treatments. Special emphasis will be placed on the treatment of the patient with head and neck cancer, and preventive and palliative dental interventions for control of the oral complications associated with all cancer therapies. Cancer prevention issues and the psychosocial and economic impact of cancer diagnosis will also be discussed.

DENT-HYG 5566 Advanced Special Patient Care Practicum II Credits: 1-4

This course will provide the graduate dental hygiene student with the opportunity to explore the relationship of an oncology dental program to medical health care facilities.

DENT-HYG 5570 Administrative Practicum Credits: 1-4

Practical experience in administration. The student selects areas of responsibility based on their goals and interests in administration. Possible areas of involvement are: recruitment, admissions, curriculum and course development, course scheduling, grant and report writing and student advising.

DENT-HYG 5575 Practicing in the Dental Hygiene Public Safety Net Credits: 3

This course is designed to increase the knowledge base of practicing dental hygienists in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence based treatment, school based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure grant monies. In addition, the course will expose dental hygienists to a variety of public health settings in which they can practice with an Extended Care Permit (in KS) or the Dental Hygiene Designation (in MO). Information on how to apply for the permits will also be shared.

DENT-HYG 5576 Extended Care Permit (ECP) III Training Course Credits: 2

The Extended Care Permit (ECP) III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

Prerequisites: Must be a student enrolled in the MSDHE program.

DENT-HYG 5585 Portfolio Capstone Course Credit: 1

This capstone course serves as the culminating experience for students in the MS in Dental Hygiene Education (MS in DHE). During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for their respective programs - in the form of an e-Portfolio. This course should be taken in the semester of anticipated completion/graduation of the MS In DHE program.

DENT-HYG 5590 Independent Study Credits: 1-4

Independent study of a particular topic or area of interest to the student in dental hygiene/dentistry and/or higher education.

DENT-HYG 5595 Writing in Science Credits: 1-2

This seminar course is designed to provide advanced education students in the health professions the skills necessary to write and communicate in science. Course activities and topics include: critical analysis of the literature, literature summary tables, structure and organization of documents, style and usage, drafting, revising and finishing. Participants will practice the craft of scientific writing not only as the writer but also as the reader providing correction and reorganization where appropriate. While this course examines many writing tasks, exercise culminate with the development of a research protocol or scientific article.

DENT-HYG 5599 Research And Thesis Credits: 1-6

This course is designed to support the research process from protocol development through data collection and report of results. Research committee chairperson typically serves as the course director.

Endodontics Courses

ENDO 5701 Endodontology 1 Credits: 1-6

This course is designed to introduce the first year endodontic postgraduate student to the field of advanced endodontics. It will provide introductory information and guidance which will serve as a basis for follow on course work in ENDO 5702 through ENDO 5706.

ENDO 5702 Endodontology 2 Credits: 1-6

This course is designed to continue the transition of the general dentist into a first year endodontic postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

ENDO 5703 Endodontology 3 Credits: 1-6

This course is designed to complete the transition of the general dentist into a first year endodontic postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

Prerequisites: ENDO 5701, ENDO 5702.

ENDO 5704 Endodontology 4 Credits: 1-6

This course is designed to transition the first year into a second year postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703.

ENDO 5705 Endodontology 5 Credits: 1-6

This course is designed to continue the transition of the general dentist into a more proficient second year postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703, ENDO 5704.

ENDO 5706 Endodontology 6 Credits: 1-6

This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703, ENDO 5704, ENDO 5705.

ENDO 5721 Endodontology 7 Credits: 1-6

This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

Prerequisites: ENDO 5706.

ENDO 5722 Endodontology 8 Credits: 1-6

This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

Prerequisites: ENDO 5721.

ENDO 5723 Endodontology 9 Credits: 1-6

This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

Prerequisites: ENDO 5722.

General Practice Courses

G-PRAC 5710 Principles Of Pedodontics For General Practice Credits: 2

A lecture course presenting the basic concepts of diagnosis and treatment of the child in a general dental practice.

G-PRAC 5716 Special Problems In General Practice Dentistry I Credits: 1-6

Courses designed to provide the student with opportunities to work with consultants and specialists on the faculty of the dental school on cases which require the attention of a specialist.

G-PRAC 5717 Special Problems In General Practice Dentistry II Credits: 1-6

Prerequisites: G-PRAC 5716.

G-PRAC 5718 Special Problems In General Practice Dentistry III Credits: 1-6

Prerequisites: G-PRAC 5717.

G-PRAC 5721 General Practice Clinic I Credits: 1-10

G-PRAC 5722 General Practice Clinic II Credits: 1-10

G-PRAC 5723 General Practice Clinic III Credits: 1-10

G-PRAC 5728 Dental Implantology Credit: 1

The course is designed to include the following topics: history of implantology, implant materials and designs, fibrous and osseous integration theories, bioinert and bioactive retention, indication and case selection, technique methodology, anatomical considerations and reasons for failure, prosthetic considerations using several systems and necessary radiographic aids, surgical stent and laboratory with simulated insertion of an implant.

G-PRAC 5740 Interdisciplinary Seminar I Credit: 1

The integration of common areas of concern in the clinical disciplines of Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, Periodontics and Prosthodontics as they relate to patient cases. Cases are presented that present problems in at least two clinical disciplines in the areas of Diagnosis, Treatment Programming or Therapy. The current literature is reviewed and the case discussed.

G-PRAC 5741 Interdisciplinary Seminar II Credits: 1-6

Prerequisites: G-PRAC 5740.

G-PRAC 5742 Interdisciplinary Seminar III Credit: 1

Prerequisites: G-PRAC 5741.

G-PRAC 5743 Interdisciplinary Seminar Iv Credit: 1

Prerequisites: G-PRAC 5742.

G-PRAC 5899 Required Graduate Enrollment Credit: 1

Oral Biology Courses

OR-BIO 5699 Dissertation Research Credits: 1-12

Ph.D. dissertation research.

OR-BIO 5702 Biomechanics of Mineralized Tissue Credits: 3

The physical principles underlying mineralized tissue biomechanics will be presented at multiple hierarchies. Details of bone, tooth and joint (with a special emphasis on the TMJ) anatomy and function will be outlined as related to mechanical loading.

OR-BIO 5899 Required Graduate Enrollment Credit: 1

Oral Surgery Courses

OR-SURG 5700 Principles Of Oral Surgery I Credit: 1

A conference on diagnosis, treatment planning, surgical technique.

OR-SURG 5701 Principles of Oral Surgery II Credit: 1

Prerequisites: OR-SURG 5700.

OR-SURG 5702 Principles of Oral Surgery III Credit: 1

Prerequisites: OR-SURG 5701.

OR-SURG 5703 Principles of Oral Surgery Iv Credit: 1

Prerequisites: OR-SURG 5702.

OR-SURG 5704 Clinical Oral Surgery I Credit: 1

The clinical application of the principles of diagnosis, treatment planning, and surgical techniques.

OR-SURG 5705 Clinical Oral Surgery II Credit: 1

Prerequisites: OR-SURG 5704.

OR-SURG 5706 Clinical Oral Surgery III Credit: 1

Prerequisites: OR-SURG 5705.

OR-SURG 5707 Physical Diagnosis For The Oral & Maxillofacial Surgeon I Credit: 1

Basic physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5708 Physical Diagnosis For The Oral & Maxillofacial Surgeon II Credit: 1

Advanced physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5709 Physical Diagnosis For The Oral & Maxillofacial Surgeon III Credit: 1

Oral and Maxillofacial Surgery and the medically compromised patient.

OR-SURG 5710 Physical Diagnosis for the Oral & Maxillofacial Surgeon Iv Credit: 1

Prerequisites: OR-SURG 5709.

OR-SURG 5711 Physical Diagnosis for the Oral & Maxillofacial Surgeon V Credit: 1

Prerequisites: OR-SURG 5710.

OR-SURG 5712 Physical Diagnosis for the Oral & Maxillofacial Surgeon Vi Credit: 1

Prerequisites: OR-SURG 5711.

OR-SURG 5713 Advanced Physical Diagnosis For Oral & Maxillofacial Surgeon I Credit: 1

Advanced physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5714 Advanced Physical Diagnosis for Oral & Maxillofacial Surgeon II Credit: 1

Prerequisites: OR-SURG 5713.

OR-SURG 5716 Special Problems In Oral And Maxillofacial Surgery I Credit: 1

OR-SURG 5717 Special Problems In Oral And Maxillofacial Surgery II Credit: 1

OR-SURG 5719 Special Problems - Oral & Maxillofacial Surgery IV Credit: 1

Special Problems - Oral Maxillofacial Surgery IV

OR-SURG 5720 Oral Surgery Hospital Residency I Credit: 1

Two calendar years of hospital residency in an affiliated teaching hospital. The residency provides additional training in major oral surgery and didactic education in oral surgery and science areas, including anesthesiology, diagnosis, pathology, and radiology.

OR-SURG 5721 Oral Surgery Hospital Residency II Credit: 1

Prerequisites: OR-SURG 5720.

OR-SURG 5722 Oral Surgery Hospital Residency III Credit: 1

Prerequisites: OR-SURG 5721.

OR-SURG 5723 Oral Surgery Hospital Residency Iv Credit: 1

Prerequisites: OR-SURG 5722.

OR-SURG 5724 Oral Surgery Hospital Residency V Credit: 1

Prerequisites: OR-SURG 5723.

OR-SURG 5725 Oral Surgery Hospital Residency Vi Credit: 1

Prerequisites: OR-SURG 5724.

OR-SURG 5727 Major Oral Surgery I Credit: 1

A comprehensive study of major oral surgery. Lectures are correlated with surgical exercises which are performed in the anatomy laboratory.

OR-SURG 5728 Major Oral Surgery II Credit: 1

Prerequisites: OR-SURG 5727.

OR-SURG 5729 General Anesthesiology And Pharmacology I Credit: 1

The pharmacological principles of the various anesthetic agents and allied medications.

OR-SURG 5730 General Anesthesiology and Pharmacology II Credit: 1

Prerequisites: OR-SURG 5729.

OR-SURG 5731 Clinical General Anesthesiology And Pharmacology I Credit: 1

The clinical application of various anesthetic and pharmacological agents.

OR-SURG 5732 Clinical General Anesthesiology and Pharmacology II Credit: 1

Prerequisites: OR-SURG 5731.

OR-SURG 5733 Clinical General Anesthesiology and Pharmacology III Credit: 1

Prerequisites: OR-SURG 5732.

OR-SURG 5734 Clinical/Major General Anesthesiology And Pharmacology I Credit: 1

The clinical/major surgical application of various anesthetic and pharmacological agents.

OR-SURG 5735 Clinical/Major General Anesthesiology and Pharmacology II Credit: 1

Prerequisites: OR-SURG 5734.

OR-SURG 5736 Clinical/Major General Anesthesiology and Pharmacology III Credit: 1

Prerequisites: OR-SURG 5735.

OR-SURG 5737 Pediatric General Anesthesiology And Pharmacology I Credit: 1

The pharmacological principles of various anesthetic agents and allied medications in the pediatric patient.

OR-SURG 5740 Oral & Maxillofacial Surgery Independent Study Credits: 1-6

An advanced study and/or elective course in Oral and Maxillofacial Surgery related field(s) which enhances the compulsory curriculum.

OR-SURG 5752 Seminar In Oral Surgery I Credit: 1

A discussion of current literature and research relating to oral surgery.

OR-SURG 5753 Seminar in Oral Surgery II Credit: 1

Prerequisites: OR-SURG 5752.

OR-SURG 5754 Seminar In Oral Surgery III Credit: 1

OR-SURG 5755 Seminar in Oral Surgery Iv Credit: 1

Prerequisites: OR-SURG 5754.

Orthodontics Courses

ORTHOD 5704 Orthodontics And Dentofacial Orthopedics I Credits: 1-6

Orthodontic theory, treatment techniques and treatment of patients; includes current and historical concepts.

ORTHOD 5705 Orthodontic and Dentofacial Orthopedics II Credits: 1-6

Prerequisites: ORTHOD 5704.

ORTHOD 5706 Orthodontics and Dentofacial Orthopedics III Credits: 1-6

Prerequisites: ORTHOD 5705.

ORTHOD 5707 Orthodontics and Dentofacial Orthopedics Iv Credits: 1-6

Prerequisites: ORTHOD 5706.

ORTHOD 5708 Orthodontic and Dentofacial Orthopedics V Credits: 1-6

Prerequisites: ORTHOD 5707.

ORTHOD 5709 Orthodontic and Dentofacial Orthopedics Vi Credits: 1-6

Prerequisites: ORTHOD 5708.

ORTHOD 5710 Orthodontic and Dentofacial Orthopedics Vii Credits: 1-6

Prerequisites: ORTHOD 5709.

ORTHOD 5711 Orthodontics and Dentofacial Orthopedics Viii Credits: 1-6

Prerequisites: ORTHOD 5710.

ORTHOD 5726 Cephalometric I Credits: 2

An introductory lecture and laboratory course in the principles of radiographic cephalometry and integrated cephalometric analysis.

ORTHOD 5727 Cephalometric II Credits: 2

An advanced lecture and laboratory course with emphasis on the use of a computer in cephalometric analysis.

Periodontics Courses

PERIO 5700 Periodontic Residency I Credits: 1-2

Didactics, Seminars in Basic Periodontics with Clinical Practice.

PERIO 5701 Periodontal Residency I Credits: 1-6

Clinical Periodontics with Related Didactics and Seminar. This first year course introduces the incoming advanced education student to the principles and techniques in the field of advanced periodontics.

PERIO 5702 Periodontal Residency II Credits: 1-6

Clinical Periodontics with Related Didactic and Seminar. This first year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics.

Prerequisites: PERIO 5701.

PERIO 5703 Periodontal Residency III Credits: 1-6

Clinical periodontics, with related didactics and seminar. This first year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics, and builds upon the material taught in previous courses as well as introduces new information.

PERIO 5704 Periodontal Residency IV Credits: 1-6

Clinical periodontics with related didactics and seminar. This second year course is designed to transition the first year student into a second year advanced education student and builds upon the material taught in previous courses as well as introducing new information.

Prerequisites: PERIO 5701, PERIO 5702, PERIO 5703.

PERIO 5705 Periodontal Residency V Credits: 1-6

Clinical Periodontics with Related Didactics and Seminar. This second year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics, and builds upon the material taught in previous courses as well as introducing new information.

Prerequisites: PERIO 5704.

PERIO 5706 Periodontal Residency VI Credits: 1-6

Clinical Periodontics with Related Didactics and Seminar. This second year course is designed to build upon the In-depth knowledge base of the advanced education student, as well as introducing new information, transitioning the student into a more proficient student in advanced periodontics.

Prerequisites: PERIO 5705.

PERIO 5707 Periodontal Residency VII Credits: 1-6

Clinical Periodontics with Related Didactics and Seminar. This third year course serves to transition the student into a clinician who by repeated action exhibits in depth levels of knowledge and skill. It builds upon material previously taught.

Prerequisites: PERIO 5706.

PERIO 5708 Periodontal Residency VIII Credits: 1-6

Clinical Periodontics with Related Didactics and Seminar. This third year course builds upon information previously taught and completes the transition of the student into a proficient specialist in Periodontology.

Prerequisites: PERIO 5707.

PERIO 5709 Periodontal Residency IX Credits: 1-6

Clinical Periodontics with Related Didactics and Seminar. This third year course is designed to build upon the in-depth information and knowledge base previously taught and completes the transition of the student into a proficient specialist in periodontology.

Prerequisites: PERIO 5708.

PERIO 5719 Implantology Credits: 2

This 2 credit hour seminar is designed for a student in the Advanced Education Program in Periodontology to develop in-depth knowledge of the concepts and theories of implant dentistry as they relate to periodontist. It will provide basic and advanced information and guidance which will serve to complement course work in PERIO 5702 through PERIO 5709, and the clinical implant dentistry experience offered in the program, at a minimum to a level of competency.

PERIO 5720 General Anesthesia Credit: 1

A rotation to the Department of Anesthesiology of K.C. Veterans Administration Medical Center. Students become familiar with operating room procedures, medical emergencies, venipuncture, airway maintenance and pharmacophysiology of sedative, analgesic and anesthetic agents as well as drug interactions.

PERIO 5730 Biology Of The Periodontium Credits: 1-2

Biology of the Periodontium covers the embryology, histology, ultrastructure and biochemistry of stratified squamous epithelium, fibrous connective tissue, bone and cementum. These four tissues are studied in health and during inflammatory disease and healing of surgical wounds. Major emphasis is placed on immune system interactions with bone and fibrous connective tissue components during inflammatory periodontal disease.

PERIO 5799 Research And Thesis Credits: 1-6

PERIO 5899 Required Graduate Enrollment Credit: 1

Research Methodology-Dentistry Courses

RES-ME 5700 Introduction To Research Methodology Credits: 2-3

This lecture/discussion course will facilitate student's understanding of terminology and key concepts of research methodology and design. Assigned exercises are designed to demonstrate application of research design principles, and to increase advanced education students' competency in evaluating and planning scientific studies. This knowledge is indispensable for conducting meaningful research in advanced education certificate, masters of doctoral level programs.

RES-ME 5703 Thesis Writing Credit: 1

The methods of preparing, organizing, and presenting research findings using scientific writing format will be reviewed for completing a thesis. This course is required for the Master of Science degrees in Oral Biology and Dental Hygiene Education.

RES-ME 5704 Introduction to Biostatistics Credits: 2-3

A lecture/seminar course required for students pursuing a master's degree. This course focuses on an in-depth coverage of statistical designs commonly found in dental research, statistical techniques associated with these designs, application to them via the use of a computer based statistical software analysis package, and the interpretation of statistical tests.

Prerequisites: RES-ME 5700.

RES-ME 5706 Dissertation Writing Credit: 1

Scientific writing format appropriate for preparing a dissertation will be reviewed. This course is required for the Interdisciplinary Ph.D. degree in Oral Biology.