

## GRADUATE OFFERINGS IN

# The Graduate School

**Donald G. Brennan, Ph.D.,**

*Dean and Associate Provost for Graduate Studies*

The Graduate School is the academic division of the University through which much of its postbaccalaureate degree study is offered. Exceptions in this regard are the professional degree programs in business, social work, several allied-health fields, law, and medicine. The Center for Advanced Dental Education and the Center for Health Care Ethics have reporting lines directly to the Dean of the Graduate School. Offerings of these two academic units that lead to advanced degrees or certificates are detailed within this section of the Catalog.

## CENTER FOR ADVANCED DENTAL EDUCATION

**Rolf G. Behrents, D.D.S., M.S., Ph.D.,**

*Executive Director*

The Center for Advanced Dental Education (CADE) at Saint Louis University is the academic division through which advanced training in dentistry is administered. The Center is committed to advancing the science and the art of all dental specialties through outstanding education, patient care, and research while promoting a multidisciplinary focus. At the present time, CADE is comprised of three graduate dental training programs: Endodontics, Orthodontics, and Periodontics. The Orthodontic program is wholly based at Saint Louis University while the Endodontics and Periodontics programs are offered in close affiliation with Southern Illinois University School of Dental Medicine, Alton, Illinois. All advanced dental training programs are fully accredited by the Commission on Dental Accreditation of the American Dental Association.

The prerequisite for matriculation in any CADE graduate dental training program is possession of a D.D.S., D.M.D., or equivalent general dental degree. Selection for admission is based upon the completed application file and a personal interview. Successful completion of all CADE graduate dental program requirements results in a Master of Science in Dentistry (Research) degree and a specialty certificate of

completion of didactic and clinical requirements.

Each individual specialty program demands full-time, in-residence participation. The three programs vary in length and differ in educational goals. Requirements include courses from the core listings below as well as specialty courses unique to the individual discipline (listed subsequently). The goal of the core curriculum is to provide advanced concepts in the sciences that comprise the foundation of graduate dental education.

### COURSE DESCRIPTIONS

#### Graduate Courses

**CAD.501 Pain: Anatomy, Physiology, Psychology, Diagnosis & Treatment (1)**

Explores multiple topics of pain with special emphasis on head and neck pain and conditions and/or syndromes that mimic dental pain. Protocols for dealing with both dental and non-dental "pain patients" will be addressed. (Offered every year.)

**CAD.503 Advanced Oral Microbiology (2)**

Examines the interface of human host and its microbial inhabitants converging to cause disease. Describes oral ecosystems resulting from interaction between human anatomy and physiology and microbial populations and their physiology with emphasis on the pulpal, periapical, and periodontal regions. Includes factors that maintain population balance and health or cause population imbalance and disease in these ecosystems. Includes management and prevention of oral microbial disease. (Offered every year.)

**CAD.504 Molecular Biology of the Cell (2)**

Cell and molecular biology of the tooth and supporting structures. Attention given to molecular structure and function of composite proteins of tooth and bone and to cellular and physiological mechanisms key to driving development and repair. (Offered every year.)

**CAD.505 Introduction to Statistical Inference (3)**

Nature of measurement in graduate dentistry. Basic principles and techniques of research analysis, particularly in graduate dental research. Introduction to probability theory and sampling theory; criteria of reliability and validity. Fundamental concepts of descriptive and inferential statistics, introduction to levels of measurements and application of parametric and non parametric tests. (Offered every year.)

**CAD.506 Ethics in Dental Research and Practice (0)**

Two-part course requiring completion of online course BBS.510 Responsible Conduct in Research, and attendance and participation in lectures on Principles of Ethics and Code of Professional Conduct and their relationship to ethical decision making processes in dental practice. (Offered every year.)

**CAD.508 Multidisciplinary Diagnosis and Treatment Planning I (1)**

Diagnosis and treatment planning of various types of multidisciplinary dental problems through case studies. Various diagnostic and treatment modalities are discussed in order to render the most efficacious plan of patient treatment. Application of biomedical sciences to clinical oro-facial problems at the dental specialty level. (Offered every year.)

**CAD.509 Research in Graduate Dentistry (1)**

Research planning, design and qualitative and quantitative methodologies are examined together with the steps taken in the preparation of a research proposal, the conducting of the research in an efficient and ethical manner,

and the writing and defense of a thesis. A culminating course requirement is the oral delivery and defense of a research proposal and the preparation of the associated literature review. (Offered every year.)

#### **CAD.510 Dental Therapeutics (1)**

A comprehensive review of the pharmacological considerations of clinical dentistry. Special emphasis is placed on dentally prescribed medications and their effects on systemic disease and associated systemic drugs. (Offered every year.)

#### **CAD.511 Principles of Practice Management (1)**

A practice management course which covers a broad range of business-management topics with an emphasis on application of concepts. (Offered every year.)

#### **CAD.514 TMJ Disorders (1)**

A lecture series to improve the understanding of TMJ disease and related disorders and to provide a rationale for differential diagnosis and treatment. (Offered every year.)

#### **CAD.516 Advanced Oral Medicine (1)**

Material on oral diagnosis and oral medicine is presented to enhance the ability to make an accurate diagnosis of oral and general diseases. Special emphasis is placed on treatment of the medically compromised patient. (Offered every year.)

#### **CAD.517 Advanced Oral Pathology (1)**

Oral diseases with similar clinical appearances are presented. A differential diagnosis will be developed. For each entry, the etiology, biologic history, clinical features, histologic characteristics, progress, and current treatment will be identified. (Offered every year.)

#### **CAD.519 Advanced Head and Neck Anatomy (2)**

Presentation of the anatomy of specific areas of the head and neck that relate to dental practice. Emphasis will be placed upon the interrelationships, clinical significance, and variation of the structures studied. (Offered every year.)

#### **CAD.522 Clinical Immunology (1)**

A comprehensive review of inflammation and immunity and how they protect or harm the host with special focus on clinical dentistry. (Offered every year.)

#### **CAD.523 Business Law (2)**

A discussion of the legal, professional, and ethical aspects of dental practice with consideration of practice acquisition, location, promotion, personnel issues, contract and tort liabilities, practice format and administration, taxes, insurance and estate planning. (Offered every year.)

#### **CAD.524 Implants & Temporary Anchorage Devices (1)**

A lecture-discussion course introducing dental implants for applications in periodontics and temporary anchorage devices to support intra-oral clinical mechanics in orthodontics. Autotransplantation of teeth within inter-disciplinary patient care is also examined. (Offered every year)

#### **CAD.G595 Special Study for Examinations (0)**

## **ENDODONTICS (CADE)**

**John F. Hatton, D.M.D.,**

*Program Director*

The Center for Advanced Dental Education at Saint Louis University offers a 24-month program in the specialty of Endodontics that leads to a Master of Science in Dentistry (Research) degree. The didactic and clinical phases of the program are conducted at both Saint Louis University and, with close affiliation, at Southern Illinois University School of Dental Medicine, Alton, Illinois. Focus of the training program is three-fold: a comprehensive clinical experience involving diagnosis and treatment of all categories of non-surgical and surgical endodontic cases; the didactic core and specialty courses encompassing biomedical and clinical con-

cepts; and research related to the discipline of endodontics. The program is fully accredited by the Commission on Dental Accreditation of the American Dental Association. Following completion of the program, graduates are educationally qualified for certification by the American Board of Endodontics.

## **Master of Science in Dentistry (Research)**

### **Prerequisites**

D.D.S., D.M.D., or equivalent general dental degree.

### **Required Courses**

All core courses described under the section entitled Center for Advanced Dental Education except CAD.514, CAD.523, and CAD.524 are required. In addition, required endodontic specialty courses include all courses described below.

### **Additional Requirements**

Supervised clinical endodontic treatment of patients; comprehensive endodontic specialty examinations utilizing written, oral, and practical clinical formats; teaching practicum.

Total required credit-hours: 51

*No formal minor is permitted.*

### **COURSE DESCRIPTIONS**

#### **Graduate Courses**

##### **ENDG.500 Preclinical Endodontic Technique (1)**

A didactic and laboratory introduction to basic and advanced endodontic clinical principles and techniques. A format to experience alternate clinical treatment methods. (Offered every year.)

##### **ENDG.520 Literature Review (1)**

An intense, ongoing overview of endodontic literature to assist the resident in developing a sound base of scientific knowledge regarding the fundamentals of endodontics. (Offered every academic term.)

##### **ENDG.521 Literature Review II (1)**

##### **ENDG.522 Literature Review III (1)**

##### **ENDG.523 Literature Review IV (1)**

##### **ENDG.524 Literature Review V (1)**

##### **ENDG.530 Preclinical Teaching Practicum (0)**

Supervised teaching participation in the instruction of undergraduate dental students in the preclinical endodontic technique course. (Offered every year.)

##### **ENDG.531 Clinical Teaching Practicum (0)**

Supervised teaching participation in the clinical instruction of undergraduate dental students. (Offered every year.)

##### **ENDG.541 Pulp Biology (1)**

Normal and diseased pulp conditions and their relationship to periapical tissues. Emphasis is placed on pulpal neural and vascular supply; pulpal defense mechanisms; injury, aging, and retrogressive changes; healing and repair of periapical tissues; and histopathology of periapical lesions. (Offered every year.)

##### **ENDG.547 Concepts in Biomedical Science (1)**

A lecture/discussion series designed to integrate the student's didactic and clinical experiences in the specialty area with other dental and medical specialty subjects. (Offered every other year.)

**ENDG.551 Principles of Endodontic Surgery (1)**

A comprehensive consideration of endodontic surgery is presented. Instruction and training in the application of relevant biomedical science to meet surgical and clinical requirements is emphasized. (Offered every year.)

**ENDG.552 American Board of Endodontics Review (1)**

Preparation for certification by the American Board of Endodontics. Course includes information on board protocol, case presentation format, and a review of prior board materials to give a foundation for continued preparation to achieve diplomate status. (Offered every year.)

**ENDG.560 Clinical Endodontics (1)**

Clinical and didactic course relating the biomedical sciences to clinical endodontic problems in order to gain a level of knowledge necessary to manage the various modalities of endodontic therapy. Includes the therapeutic management of routine, complex, and surgical clinical cases. (Offered every academic term.)

**ENDG.561 Clinical Endodontics II (2)****ENDG.562 Clinical Endodontics III (2)****ENDG.563 Clinical Endodontics IV (1)****ENDG.564 Clinical Endodontics V (2)****ENDG.565 Clinical Endodontics VI (2)****ENDG.566 Clinical Endodontics VII (1)****ENDG.591 Endodontic Journal Club (0-1)**

A consideration of recent developments and current literature in endodontics and related fields. (Offered every academic term.)

**ENDG.595 Special Study for Examinations (0)****ENDG.599 Thesis Research (0-6)****ENDG.5CR.90 Master's Degree Study (0)**

## ORTHODONTICS (CADE)

**Rolf G. Behrents, D.D.S., Ph.D.,**

*Program Director*

The Center for Advanced Dental Education at Saint Louis University offers a graduate training program in Orthodontics that is 30 months in length. The program offers three basic areas of training: an extensive and comprehensive clinical experience that involves diagnosis, treatment planning, active treatment, and retention of patients representing a variety of malocclusions and craniofacial deformities; a didactic core and specialty education that encompasses biomedical sciences as well as clinical concepts; and research related to the discipline. The program is fully accredited by the Commission on Dental Accreditation of the American Dental Association. Following completion of the program, graduates are educationally qualified for certification by the American Board of Orthodontics

## Master of Science in Dentistry (Research)

**Prerequisite**

D.D.S., D.M.D., or equivalent general dental degree.

**Required Courses**

All core courses described under the section entitled Center for Advanced Dental Education are required except for CAD.503 CAD.510 and CAD.522. In addition, specialty courses required include all courses described below.

**Additional Requirements**

Supervised active and retention clinical orthodontic treatment of patients; comprehensive orthodontic specialty examinations utilizing written, oral, and practical clinical formats.

Total required credit hours: 80

*No formal minor is permitted.*

**COURSE DESCRIPTIONS****Graduate Courses****ORTH.501 Fundamentals of Orthodontics (2)**

Team-taught by the orthodontic faculty during the first summer and fall terms of the graduate program. Course is based upon a respected, comprehensive, graduate text in the specialty. Applied science and techniques of diagnosis, treatment planning, active therapy, and retention are reviewed. (Offered every year)

**ORTH.503 Facial Development (2)**

An overview of current thought in the field of craniofacial biology. The graduate student is exposed to the changes that take place in the face from embryo to adult. Hypothetical control mechanisms, clinical application of facial growth principles, and the experimental evidence are explored in a critical review of relevant literature. (Offered every year.)

**ORTH.510 Biomechanics (2)**

Concepts of orthodontic displacement and force. Kinematics and biomechanics of tooth movement. Deformable-body mechanics, materials science, mechanical analyses, and selection of orthodontic-appliance components. Instantaneous and dynamic analyses of example appliances and clinical mechanics. (Offered every year.)

**ORTH.525 Clinical Cephalometrics (2)**

Introduction to the use of cephalometric radiographs in clinical orthodontics. Overview of cephalometric analyses of historic importance. Lectures and demonstrations with a laboratory component that includes cephalometric tracing technique, visualization of treatment objectives for orthodontic and surgical orthodontic cases, analysis of growth pattern, and treatment results. (Offered every year.)

**ORTH.535 Surgical Orthodontics (1)**

Acquaints the graduate student with those surgical procedures that directly relate to orthodontic treatment plans. The lecture series encompasses a review of diagnostic procedures, surgical techniques for the treatment of maxillary and/or mandibular skeletal excess and deficiency as well as laterognathism, Class II malocclusion and adjunctive techniques of genioplasty for correction of microgenia and macrogenia. In addition to surgical consideration of jaw deformities, time is allocated for miscellaneous pathological conditions. (Offered every year.)

**ORTH.537 Orthodontic Problems Related to Cleft-Palate Patient (1)**

A study of the various aspects of the congenital cleft-lip-and-palate condition with a consideration of the several professional areas concerned with the total habilitation of the cleft-tip-and-palate patient. Coursework includes diagno-

sis and treatment of patients at the Cardinal Glennon Hospital Cleft Palate Center. (Offered every year.)

**ORTH.539 Speech Problems Related to the Oral Mechanism (1)**

Basic anatomy and physiology of the speech mechanism. Introduction to phonetics and speech sound production. Survey of communication disorders; significance of the disorder for the orthodontist, and orthodontic treatment plan. (Offered every Fall semester.)

**ORTH.540 History of Orthodontics (1)**

Evaluating concepts in pre-specialization disciplinary organization, ethical considerations, and humanist aspects of the profession. (Offered every year.)

**ORTH.549 Diagnostic Procedures in Orthodontics (1)**

An introduction to diagnostic procedures including the taking of the prospective patient's medical and dental history, conducting the clinical examination and an evaluation of dental and oral function. The analysis of orthodontic study casts. (Offered every year)

**ORTH.550 Diagnosis and Treatment Planning I (1)**

Evaluation and treatment planning of various types of malocclusion. (Offered every year.)

**ORTH.553 Clinical Diagnosis I (1)**

The clinical application of the various diagnostic procedures and philosophies of orthodontic diagnosis and a presentation of practical procedures to help in the management of unusual problems that can arise during the course of treatment. (Offered every year.)

**ORTH.554 Clinical Diagnosis II (1)**

Continuation of Clinical Diagnosis I. (Offered every year.)

**ORTH.555 Orthodontic Analysis and Treatment Modalities (1)**

An in-depth presentation of specific and complex problems that can and do arise in orthodontic practice. Recognition, precautions, and various treatment modalities for each problem are discussed. Advances in orthodontic technology will be presented utilizing diagrams, photographs, clinical aids, and actual demonstrations to further enhance knowledge in dealing with difficult situations. (Offered every year.)

**ORTH.556 Clinical Case Conference (0-1)**

In seminar format, each class meeting features the presentation by one of the students of the work-up and diagnosis of an active orthodontic patient. The other students and faculty propose and critically evaluate possible treatment plans and modalities. The presenting student then reviews the actual treatment plan being followed and the progress in therapy to date. (Offered every year.)

**ORTH.558 Clinical Specialty Seminars (1)**

Individual clinical faculty members present their personal philosophies of diagnosis, treatment planning, active therapy, and retention. These sessions serve also to introduce the students to a diversity of techniques and appliances and therapy for unusual and exceptional categories of patients and cases perhaps not routinely seen in the mainstream of orthodontic care. (Offered every year.)

**ORTH.560 Introduction to Clinical Orthodontics (1)**

A didactic and laboratory introduction to provide an overview of the range of problems encountered in clinical orthodontics and approaches to those problems as well as techniques of orthodontic appliance fabrication and their applications to assist in solving those problems. (Offered every year.)

**ORTH.561 Introduction to Clinical Orthodontics II (1)**

A continuation of ORTH.560. A concentrated, didactic course that addresses in some depth the procedures of diagnosis, treatment planning, and application of clinical therapy toward the solutions of orthodontic problems in patients of various ages and dental development. (Offered every year.)

**ORTH.562 Principles of Orthodontic Techniques (2)**

Course includes typodont setup in normal occlusion before banding; philosophy of treatment; and a coordination of lectures and seminars with laboratory demonstration on archwire fabrication and reasons for each bend. (Offered every year.)

**ORTH.563 Principles of Orthodontic Techniques II (2)**

Course includes treatment of Class II, Division I non-extraction case and treatment of Class I bimaxillary-protrusion case, requiring removal of permanent teeth. (Offered every year.)

**ORTH.564 Tip-Edge Brackets and the Differential Straight-Arch Technique (1)**

The differential straight-arch technique is a fixed-appliance method of orthodontics utilizing pre-angled brackets that let the teeth move yet provide

accurate three-dimensional final control. The light, continuous forces are physiologically compatible. Course includes complete instruction in theory, fabrication and manipulation of the appliance through lectures, laboratory exercises, and the treatment of patients. (Offered every year.)

**ORTH.570 Clinical Procedure (1)**

Introduction of the first year students to the policies, personnel, and protocol of the orthodontic clinic and the ancillary facilities that complement the clinic. (Offered every year.)

**ORTH.571 Clinical Orthodontics I (2)**

Supervised patient treatment in the Orthodontic Clinic. (Offered the first Fall semester and every academic term thereafter.)

**ORTH.572 Clinical Orthodontics II (3)**

**ORTH.573 Clinical Orthodontics III (1)**

**ORTH.574 Clinical Orthodontics IV (3)**

**ORTH.575 Clinical Orthodontics V (3)**

**ORTH.576 Clinical Orthodontics VI (1)**

**ORTH.577 Clinical Orthodontics VII (3)**

**ORTH.578 Clinical Orthodontics VIII (0-3)**

**ORTH.580 Seminar: Child and Adolescent Psychology (1)**

The personal-social development of the child and adolescent from the perspective of life-span psychology is presented and discussed in the context of orthodontics, which includes the psycho-social impact of malocclusion, patient-parent-doctor motivations, communication and interpersonal relationships, patient cooperation and behavior modifications, and the psychology of the orthodontist. (Offered every year.)

**ORTH.589 Review for the ABO Examination (0)**

The second year students attend a series of seminars with various members of the faculty toward preparation for the phase two, written examination administered periodically by the American Board of Orthodontics. Passing the examination is a required step toward board certification. (Offered every year.)

**ORTH.591 Literature Review (1)**

A consideration of recent developments and current literature in the orthodontic field and in related fields.

**ORTH.595 Special Study for Examinations (0)**

**ORTH.597 Research Topics (1-2)**

Prior permission of guiding professor and program director required.

**ORTH.599 Thesis Research (0-6)**

## PERIODONTICS (CADE)

**D. Douglas Miley, D.M.D., M.S.D.,**  
*Program Director*

The 36-month graduate program in Periodontics, offered by the Center for Advanced Dental Education, leads to the Master of Science in Dentistry (Research) degree. Didactic and clinical education in graduate periodontics occur at the host institution, Saint Louis University, as well as at two sites (Implant Clinic and Main Clinic) at the affiliate institution, Southern Illinois University School of Dental Medicine. Focus of the training program is three-fold: an extensive and comprehensive clinical experience involving diagnosis and treatment of patients representing a wide variety of periodontal problems; the didactic component that encompasses the biomedical sciences as well as clinical concepts; and research related to the study of periodontology. The program is fully accredited by the Commission on Dental Accreditation of the American Dental Association.

Following completion of the program, graduates are educationally qualified for certification by the American Board of Periodontology.

## Master of Science in Dentistry (Research)

### Prerequisites

D.D.S., D.M.D., or equivalent general dental degree

### Required Courses

All CAD core courses described within the section entitled Center for Advanced Dental Education except CAD.523. In addition, required periodontal specialty courses include all courses described below.

### Additional Requirements

Supervised clinical periodontal treatment of patients; comprehensive periodontal specialty examinations utilizing written, oral, and practical clinical formats; teaching practicum; oral defense of the thesis.

Total required credit-hours: 68

*No formal minor is permitted.*

### COURSE DESCRIPTIONS

#### Graduate Courses

##### PERI.500 Principles of Periodontics (1)

An overview of critical didactic and clinical information in the field of periodontology to the incoming periodontal resident. (Offered every year.)

##### PERI.501 Periodontal Literature Reviews I (1)

A format for reviewing and presenting significant classical and contemporary periodontal literature published in related journals. (Offered every semester.)

##### PERI.502 Periodontal Literature Reviews II (1)

##### PERI.503 Periodontal Literature Reviews III (1)

##### PERI.504 Periodontal Literature Reviews IV (1)

##### PERI.505 Periodontal Literature Reviews V (1)

##### PERI.506 Periodontal Literature Reviews VI (1)

##### PERI.510 Conscious Sedation I (1)

Course is designed to provide knowledge required to manage pain and anxiety in the conscious, sedated patient and training in the various sedation techniques. (Offered every year.)

##### PERI.511 Conscious Sedation II (1)

Continuation of PERI.510. (Offered every year.)

##### PERI.520 Introduction to Graduate Implant Dentistry I (1)

A comprehensive course to prepare knowledge necessary for clinical dental implant treatment; all phases of surgical and prosthetic treatment are discussed. (Offered every year.)

##### PERI.521 Introduction to Graduate Implant Dentistry II (1)

Continuation of PERI.520. (Offered every year.)

##### PERI.522 Advanced Implant Surgery I (1)

A comprehensive overview of implant dentistry, with an emphasis on surgical methods and techniques. Special topics are presented and current literature is reviewed. (Offered every year.)

##### PERI.523 Advanced Implant Surgery II (1)

Continuation of PERI.522. (Offered every year.)

##### PERI.530 Clinical Teaching Practicum (0)

Supervised participation in the instruction of clinical periodontics to undergraduate dental students and participation with faculty in the development of treatment plans for new patients. (Offered every year.)

##### PERI.540 Periodontal Case Presentation Seminar (1)

Resident presentations of patient treatment for critical review and discussion. Residents organize clinical case information and records for presentations of patient diagnosis, treatment planning, and surgical therapy. Gives each resident the opportunity to observe and evaluate periodontal treatment by other residents and provides a basis of preparation for the American Board of Periodontology oral examination. (Offered every academic term.)

##### PERI.560 Clinical Periodontics I (1)

Clinical course consisting of patient treatment for periodontal diseases and other associated conditions in the field of periodontics. Students treat patients with various periodontal diseases to a level that periodontal health is achieved, etiologic factors are controlled, and a schedule for supportive periodontal therapy is organized for patients. The clinical experience also consists of dental implant treatment and other adjunctive methods in the management of patients referred for periodontal treatment. (Offered every academic term.)

##### PERI.561 Clinical Periodontics II (2)

##### PERI.562 Clinical Periodontics III (2)

##### PERI.563 Clinical Periodontics IV (1)

##### PERI.564 Clinical Periodontics V (2)

##### PERI.565 Clinical Periodontics VI (2)

##### PERI.566 Clinical Periodontics VII (1)

##### PERI.567 Clinical Periodontics VIII (2)

##### PERI.568 Clinical Periodontics IX (2)

##### PERI.570 Periodontal Systemic Interrelationships (0)

Explores the complex interaction between oral and systemic health. Evidence shows that a number of human diseases are associated with opportunistic infections in periodontal medicine. These diseases are discussed together with the oral manifestations and management. (Offered every year.)

##### PERI.580 Orthodontic-Periodontic Interrelationships (0)

Designed to explore the interrelationships between the disciplines of orthodontics and periodontics. In-depth discussion of special topics to improve patient treatment of interdisciplinary problems in clinical practice. (Offered every year.)

##### PERI.591 Current Literature in Periodontics (1)

An ongoing review of current literature in periodontics taken from various journals. Residents present abstracts and review articles. Critical evaluations are made of current published research, and new concepts and techniques are discussed in a seminar format.

##### PERI.595 Special Study for Examinations (0)

##### PERI.599 Thesis Research (0-6)

##### PERI.5CR.90 Master's Degree Study (0)

# HEALTH CARE ETHICS

**James M. DuBois, Ph.D., D.Sc.,**  
*Center Director and Department Chair*

**Ana S. Iltis, Ph.D., D.Sc.,**  
*Doctoral Program Director*

The graduate program leading to the research doctorate is offered by the Department of Health Care Ethics. Interdisciplinary in nature, the program involves full-time faculty in the Center for Health Care Ethics as well as faculty from the College of Arts and Sciences, the College of Public Service, and the Schools of Law, Medicine, and Public Health. The program combines an interdisciplinary curriculum with practica in health care. In cooperation with the Schools of Law and Medicine, respectively, the Center for Health Care Ethics offers a J.D./Ph.D. and a M.D./Ph.D.

## Doctor of Philosophy

### Prerequisites

There are two admission tracks to the PhD program with separate prerequisites:

1. Post-baccalaureate: Applicants are required to possess a bachelor's degree with a major or a minor in a field related to ethics in the humanities (e.g., philosophy or religious studies) and their writing sample and statement of aims must evidence the maturity needed to complete a PhD in health care ethics. Basic competencies in philosophical and applied ethics are developed within the doctoral curriculum.

2. Postgraduate: Applicants must have completed a Master's degree or another advanced degree in a field related to health care ethics (e.g. an MA in philosophy or moral theology, JD, or MD). Students whose graduate or professional curriculum did not include the following, may need to complete additional prerequisite coursework:

- Philosophical ethics (3 credits)
- Applied ethics (3 credits)
- Logic or Critical thinking (3 credits)
- A Master's thesis in ethics OR 6 credit hours of further humanities studies in which essays are written

For applicants who are otherwise qualified for admission, up to 9 hours of prerequisites may be completed during the first year of study within the PhD program.

### *JD/PhD Program Prerequisites*

Ordinarily, JD/PhD students are required to satisfy the same prerequisites as students admitted to the PhD program on the postgraduate admission track.

### *MD/PhD Program Prerequisites*

MD/PhD students must have completed a graduate level foundations of ethics course and applied ethics course. Students may satisfy these requirements as directed reading courses during the summer between the first and second years of medical school. Applicants to the Health Care Ethics program must provide a sample of writing in health care ethics that demonstrates the ability to do doctoral level coursework in the field.

### Required Courses

For the postbaccalaureate (pre-Master's) student the following courses are required:

HCE.501 Foundations of Clinical Ethics;

HCE.503 Foundations of Catholic Health Care Ethics; and an advanced, one-credit course from the Clinical Ethics Certificate Program (e.g. HCE.510). An alternative, approved, graduate, three-credit, foundational-ethics course may be taken in place of HCE.501, HCE.503 and the one-credit certificate program course.

HCE.521 Theories in Philosophical Ethics (or the equivalent)

Three, advanced, one-credit courses from the Clinical Health Care Ethics certificate program (e.g., HCE.510, HCE.511, and HCE.512, or an alternative, approved, graduate, three-credit, applied ethics course)

CMHC.502 Ethical Issues in Public Health (or an approved substitute, three-credit course)

The following courses are required of all students in the doctoral program:

HCE.601 Methods in Philosophical Ethics;

HCE.602 Methods in Religious Ethics;

HCE.603 Applied Methods in Health Care Ethics;

HCE.604 Interdisciplinary Research in Health Care Ethics;

HCE.611 Introduction to Medicine for Ethicists;

HCE.612 Health Care Law; and

CMHC.500 Health Care Organization.

### Additional Requirements

Three credit hours of coursework from offerings in health care in other programs, nine hours of coursework on topics in health care ethics, three credit hours of practica, and competencies in medical terminology, reading statistics and study design, and library database skills.

Between the end of coursework and completing the dissertation students will be encouraged to attend an ongoing Interdisciplinary Research Seminar.

*No formal minor is permitted. Students may complete an optional Certificate of Empirical Research methods in Descriptive Ethics, a concentration in Research Ethics,*

or a Concentration in Health Care Ethics in the Catholic Tradition.

### **Certificate of Empirical Research Methods in Descriptive Ethics**

Students, with the approval of the program's faculty, may opt to complete this certificate program. The certificate program, which has two distinct tracks (qualitative and quantitative), requires 15 hours of coursework, some of which can be integrated into the traditional Ph.D. program. The aim of the certificate program is to prepare students to do independent research based either on survey (quantitative) or on interview (qualitative) methods. Data gathered during the final courses of the certificate program should be integrated into the doctoral dissertation in health care ethics. Courses will include HCE.651 and HCE.652.

### **Research Ethics Concentration**

Students enrolled in the Ph.D. program in health care ethics may take 15 hours of coursework with an emphasis on research ethics and write a dissertation (12 credits) in research ethics to develop expertise in the area of human research ethics.

### **Concentration on Health Care Ethics in the Catholic Tradition**

Students enrolled in the Ph.D. program in health care ethics may take 15 hours of coursework with an emphasis on health care ethics in the Catholic tradition and write a dissertation (12 credits) in the Catholic tradition to develop expertise in the area of Catholic health care ethics.

## **Certificate in Clinical Health Care Ethics**

**Jill Burkemper, Ph.D.,**  
*Certificate Program Director*

The Certificate in Clinical Health Care Ethics has been established to serve hospital personnel and others engaged in healthcare. The primary objective of the certificate program is to foster clinical ethics skills and knowledge needed by ethics committee members, physicians, nurses, administrators, attorneys, social workers, chaplains, and others in healthcare. To deliver a program manageable for professionals who may be working full-time, the program includes an extensive distance-learning component. Participants have the option of pursuing a concentration in Catholic Health Care Ethics.

### **Prerequisites**

A baccalaureate or equivalent professional degree;

Some professional experience in a health care setting (ordinarily required); and

Admission to the program subsequent to an application process

### **Required Courses**

HCE.501 Foundations in Clinical Ethics  
HCE.510 Informed Consent and Surrogate Decision Making  
HCE.511 Death and Dying  
HCE.516 Law and Bioethics  
HCE.589 Capstone Project: Ethics Case Analysis

In addition, students are required to complete three of the following courses:

HCE.503 Foundations of Catholic Health Care Ethics  
(Required for all students pursuing a concentration in Catholic health care ethics.)  
HCE.512 Ethical, Policy, and Social Issues in Pain Management and Palliative Care  
HCE.513 Patient Safety and Medical Error  
HCE.514 Organ Donation: Ethical Issues in Clinical Practice  
HCE.515 Perinatal and Pediatric Ethics

### **Time Frame**

The program is designed to be completed in one year: found semester-hours in the Fall semester, three-semester hours in the Spring semester, and one semester-hour during the following Summer Session. (Students have the option of taking longer than one year to complete the Certificate.) Besides the distant learning component, a two day seminar is required, onsite at Saint Louis University, during each of the Fall and Spring semesters.

## **COURSE DESCRIPTIONS**

### **Graduate Courses**

#### **HCE.431/531 Humanism & The Health Care Humanities (3)**

Prerequisite: Permission of Instructor. Introduces the central themes in the humanistic tradition and explores the intersection between these and health care. Topics include Post-Enlightenment thought; the tension between scientific and humanistic approaches; and the critical, educational, and supplementary functions of the humanities in health care. (Offered every other year.)

#### **HCE.501 Foundations of Clinical Ethics (1)**

This course has three main purposes: first, to study the principal ethical norms that inform clinical ethics discussions; second, to examine the main models for conducting clinical ethics consultations; third, to present a framework for analyzing cases which is suitable for writing up case studies. (Offered annually)

#### **HCE.503 Foundations of Catholic Health Care Ethics (1)**

This course examines *Ethical and Religious Directives for Catholic Health Care Services* (4th edition, 2001) to offer a critical appraisal of the foundations of Catholic healthcare ethics. (Offered annually)

#### **HCE.510 Informed Consent and Surrogate Decision Making (1)**

This course investigates informed consent and decision-making on behalf of incompetent patients, including such topics as the legal and ethical basis of informed consent, standards that health professionals must meet in disclosing information, standards used by surrogate decision-makers, and the role of advance directives. (Offered annually.)

#### **HCE.511 Death and Dying (1)**

This course surveys ethical issues and norms that pertain to healthcare for patients who are near the end of life. (Offered annually.)

#### **HCE.512 Ethical, Policy, and Social Issues in Pain Management and Palliative Care (1)**

A study of: empirical data concerning pain management and palliative care to

identify major areas of concern relevant for ethicists in the clinical setting; an ethical framework for physicians and institutions in providing pain management and palliative care; legal norms regarding pain management, including statutes, cases, professional guidelines, and private accreditation. (Offered annually.)

#### **HCE.513 Patient Safety and Medical Error (1)**

This course examines related ethical issues of medical error and patient-safety, especially from the perspective of quality improvement in healthcare today. (Offered annually.)

#### **HCE.514 Organ Donation: Ethical Issues in Clinical Practice (1)**

This course explores the ethical and legal issues that arise in facilitating organ donation in the context of brain death, cardiac death, and living organ donation. Special attention is given to common concerns of family members and clinical staff with current donation policies and practices. (Offered annually.)

#### **HCE.515 Perinatal and Pediatric Ethics (1)**

This course surveys the ethical and legal issues that arise in the care of children and adolescents, such as parental refusals of and demands for treatment, care of critically ill newborns, adolescent decision-making, intra-familial organ and tissue transplants, end-of-life decisions, and confidentiality. (Offered annually.)

#### **HCE.516 Law and Bioethics (1)**

This course examines the relationship between law and ethics generally and in the context of healthcare decision making. It includes a brief introduction to the legal system and legal method. It then applies this learning to one particular question in healthcare law and ethics. (Offered annually.)

#### **HCE.521 Theories in Philosophical Ethics (3)**

Prerequisite: Permission of the Instructor. A critical study of classic theories of moral philosophy that have shaped ethics discourse in healthcare ethics. Included are virtue theory, natural law, deontology, and utilitarianism. Assigned readings will be taken from both primary and secondary sources. (Offered annually.)

#### **HCE.589 Capstone Project: Ethics Case Analysis (1)**

A mentored project for the student completing the certificate in Clinical Health Care Ethics. The student develops and analyzes an ethics case based on experience and area of interest. The student is responsible for integrating relevant healthcare-ethics literature and bringing a discussion of relevant legal, cultural, and/or religious issues into the analysis. (Offered annually.)

#### **HCE.601 Philosophical Methods in Health Care Ethics (3)**

A study of philosophical methods of inquiry in health care ethics such as principlism, casuistry, professional virtue ethics, pragmatic bioethics, and libertarian bioethics. (Offered every other year.)

#### **HCE.602 Religious Methods in Health Care Ethics (3)**

A study of the hermeneutical significance of different methods in religious ethics and a critical analysis of the implications of these methods for the development of ethical theory and practice. (Offered every other year.)

#### **HCE.603 Applied Methods in Health Care Ethics (3)**

A study of the principal applied areas of practice for health care ethicists such as ethics committees, ethics consultation and mediation, government commissions, policy development, human research subjects protections, the press, and the courts. (Offered every other year.)

#### **HCE.604 Interdisciplinary Research in Health Care Ethics (3)**

A study of the assumptions and methods that guide interdisciplinary research in health care ethics. Special attention is given to the integration of factual knowledge from fields related to health care into normative, ethical arguments. (Offered every other year.)

#### **HCE.611 Introduction to Medicine for Ethicists (3)**

A study of the principles and practice of medicine in the context of current bioethical discourse, including: the classification and etiology of diseases (e.g. genetic diseases); their clinical manifestations and complications (e.g., clinical presentations of coronary artery disease); and principles of medical and surgical treatment (e.g. life support systems). (Offered every other year.)

#### **HCE.612 Health Care Law (3)**

A study of the impact of law upon delivery systems, providers, and patients in health care, including: legal analysis in case law and statutes; legal process in health care; fundamental legal principles in health care law; critical judicial decisions and regulatory issues that impact American health care settings. (Offered every other year.)

#### **HCE.613 Clinical Ethics (1)**

Prerequisite: PhD students in Health Care Ethics. A study of fundamental skills and core areas of knowledge essential for ethics consultation, integrating process and outcomes, to identify, analyze, and resolve ethical dilemmas, cases and issues, that emerge in the context of patient care. (Offered every fourth semester.)

#### **HCE.614 Mediation Skills for the Health Care Ethics (1)**

Prerequisite: PhD students in Health Care Ethics. This course is designed to build knowledge and skills for students pursuing a career in health care ethics who have no certification in mediation. It introduces the concepts of conflict, family dynamics, mediation, and negotiation. (Offered every fourth semester.)

#### **HCE.615 Cultural Competence: Understanding in Clinical Context (1)**

Prerequisite: PhD students in Health Care Ethics. Investigation of the philosophical and pedagogical underpinnings of cultural competency education. The course will attempt to sensitize students to the different culturally defined perspectives, as well as investigate the theory of understanding between interlocutors in clinical contexts. (Offered every other year.)

#### **HCE.631 Health Care Ethics in the Catholic Tradition (3)**

This course will examine moral methodology and critical issues in Catholic bioethics, primarily through the lens of four contemporary moral theologians who present differing, sometimes opposing, viewpoints on the subject matter.

#### **HCE.633 The Human Genome (3)**

A study of the human genome and its implications for the sanctity and dignity of human life, including: genetic make-up, disease, testing, engineering, counseling, and therapies; privacy, consent, and confidentiality; the management of genetic information (e.g. insurance companies); patenting scientific information in genetics; legal and social policies on genetic technology. (Offered occasionally.)

#### **HCE.634 Health Care Reform (3)**

A study of governmental, organizational, and market developments in health care reform, including: social justice and the common good; fragmented health care, capacity, and cost; integrated delivery systems and the continuum of care; managed care, capitation, resource allocation, and quality; universal coverage, community health, and preventative care; information technology. (Offered every other year.)

#### **HCE.635 Philosopher(s) in Health Care Ethics (3)**

A study of one or several philosophers in health care ethics, including: the genesis of the scholar's thought and works (e.g. response to previous philosophical theories); a systematic critique of the method adopted (e.g. implications for social policy); an evaluation of the scholar's contribution (e.g. predominance of the method). (Offered occasionally.)

#### **HCE.636 Religious Scholars in Health Care Ethics (3)**

A study of one or several religious scholars in health care ethics, including: the genesis of the scholar's thought and works (e.g. response to previous religious theories); a systematic critique of the method adopted (e.g. implications for social/ecclesial policy); an evaluation of the scholar's contribution (e.g. influence upon religious traditions). (Offered occasionally.)

#### **HCE.637 Psychological Issues in Health Care Ethics (3)**

A study of psychological issues as they relate to health care ethics. Specific issues include: psychological interpretations of ethical behavior; psychological approaches to moral development; developmental approaches to moral education; and psychological factors embedded in controversial issues of interest to health care ethicists, such as sexual practices, suicide, and abortion. (Offered every other year.)

#### **HCE.638 Clinical Issues in Health Care Ethics (3)**

A study of specific clinical ethical issues that arise in the care of adult and pediatric patients such as decision-making capacity, surrogate decision making, the privacy of health records, futile and burdensome treatments, palliative care, rationing, and other clinical topics. (Offered occasionally.)

#### **HCE.639 Research Ethics (3)**

This course introduces students to a range of issues in research ethics. The focus of the course is human research ethics, though issues of regulation and compliance will be discussed throughout. (Offered every other year.)

#### **HCE.641 Health Care Practicum (1-3)**

The Practicum engages students in a variety of health care settings to experience the clinical environment, the public health and community dimensions of health care, and the administrative aspects of health care. These experiences will help students better understand the health care context. Students will

reflect critically on ethical challenges in health care.

**HCE.651 Interdisciplinary Research Seminar: Dissertation Research in Health Care Ethics (0)**

The interdisciplinary research seminar is recommended for students between the end of coursework and completing the dissertation. This seminar examines ongoing dissertation research, integrating the knowledge of method and systematic analysis in ethics, of interdisciplinary study, and of foreign literature in health care ethics. (Offered every year.)

**HCE.652 Directed Research in Descriptive Ethics (3)**

Prerequisites: Completion of at least nine semester-hours within the Certificate in Empirical Research Methods program. This course provides the opportunity to design and carry out directed, research in descriptive ethics. The course fosters the development of skills necessary to secure grant funding, to gain Institutional Review Board approval, and to do empirical research that can be integrated into the doctoral dissertation in health care ethics. (Offered every other year.)

**HCE.660 Bioethics and the Law (3)**

This course examines legal issues in health care decision making in areas typically considered a part of bioethics. These topics include organ transplantation, genetic medicine, end-of-life care, determination of death, and experimentation with human subjects, among other topics. (Offered every year.)

**HCE.693 Special Topics (1-3)**

**HCE.695 Special Study for Examinations (0)**

**HCE.697 Research Topics (1-3)**

Prior permission of Program Director required.

**HCE.698 Graduate Reading Course (1-3)**

Prior permission of Program Director required.

**HCE.699 Dissertation Research (0-6)**

**HCE.6CR.99 Doctor of Philosophy Degree Study (0)**