

Doctor of Medical Science

Course Description

DMS-800 Research Design & Writing for the Health Professional (1 credit hour)

This course concentrates on the goals, design, and implementation of research projects and develops the skills needed to write about health and medicine topics. The research component will focus on research techniques such as survey, experimental, quantitative, qualitative, & mixed methods approach. Topics covered include research ethics, basic descriptive and inferential statistics, and data interpretation. The writing component will outline the skills needed to write about health and medicine related topics for diverse audiences. Research articles will be analyzed to assess possible methodologic issues, and their implications for evidence-based professional practice and the student will construct a professional medical research article.

DMS 812: Medical Conference I (3 credit hour)

The student will attend on-campus training in the use of ultrasound and its application to common ultrasound guided diagnostics and procedures, such as a FAST exam, vascular access, and identification of DVT, pneumothorax, fractures, foreign bodies, retinal detachment, abscess I&D and more.

DMS 820: Medical Science Module I- Nephrology (3 credit hours)

The course takes a systematic approach to advanced clinical Nephrology. The epidemiology, pathophysiology, diagnosis, and management of system diseases, as they relate to primary care will be evaluated. The course will integrate relevant clinical anatomy, imaging, and pharmacotherapy to maximize the student's applicability in clinical practice.

DMS 821: Medical Science Module II- Neurology (3 credit hours)

The course takes a systematic approach to advanced clinical Neurology. The epidemiology, pathophysiology, diagnosis, and management of system diseases, as they relate to primary care will be evaluated. The course will integrate relevant clinical anatomy, imaging, and pharmacotherapy to maximize the student's applicability in clinical practice.

DMS 822: Medical Science Module III- Psychiatry (3 credit hours)

The course takes a systematic approach to advanced clinical Psychiatry. The epidemiology, pathophysiology, diagnosis, and management of system diseases, as they relate to primary care will be evaluated. The course will integrate relevant clinical anatomy, imaging, and pharmacotherapy to maximize the student's applicability in clinical practice.

DMS 823: Medical Science Module IV- Pulmonology (3 credit hours)

The course takes a systematic approach to advanced clinical Pulmonology. The epidemiology, pathophysiology, diagnosis, and management of system diseases, as they relate to primary care will be evaluated. The course will integrate relevant clinical anatomy, imaging, and pharmacotherapy to maximize the student's applicability in clinical practice.

DMS 824: Medical Science Module V- Cardiology (3 credit hours)

The course takes a systematic approach to advanced clinical Cardiology. The epidemiology, pathophysiology, diagnosis, and management of system diseases, as they relate to primary care will be evaluated. The course will integrate relevant clinical anatomy, imaging, and pharmacotherapy to maximize the student's applicability in clinical practice.

DMS 825: Medical Science Module VI- Gastroenterology (3 credit hours)

The course takes a systematic approach to advanced clinical Gastroenterology. The epidemiology, pathophysiology, diagnosis, and management of system diseases, as they relate to primary care will be evaluated. The course will integrate relevant clinical anatomy, imaging, and pharmacotherapy to maximize the student's applicability in clinical practice.

DMS 826: Medical Science Module VII- Endocrinology (3 credit hours)

The course takes a systematic approach to advanced clinical Endocrinology. The epidemiology, pathophysiology, diagnosis, and management of system diseases, as they relate to primary care will be evaluated. The course will integrate relevant clinical anatomy, imaging, and pharmacotherapy to maximize the student's applicability in clinical practice.

DMS 827: Medical Science Module VIII- Hematology (3 credit hours)

The course takes a systematic approach to advanced clinical Hematology. The epidemiology, pathophysiology, diagnosis, and management of system diseases, as they relate to primary care will be evaluated. The course will integrate relevant clinical anatomy, imaging, and pharmacotherapy to maximize the student's applicability in clinical practice.

DMS 828: Medical Science Module IX- Infectious Disease (3 credit hours)

The course takes an advanced systematic clinical approach to Infectious Disease. The epidemiology, pathophysiology, diagnosis, and management of system diseases, as they relate to primary care will be evaluated. The course will integrate relevant clinical anatomy, imaging, and pharmacotherapy to maximize the student's applicability in clinical practice.

DMS 889 Scholarship in the Practice of Medicine I (1 credit hour)

Introduction to the scholarship in practice of medicine. Each student will submit a description of their proposed project to faculty for review. This description will include the clinical or educational topic of study and the specific question(s) to be addressed. Background information as to the purpose of the project and its importance will be written and include a relevant review of the literature pertinent to the project. A detailed outline of the proposed project methodology will be submitted for faculty evaluation and approval prior to initiating data collection.

DMS 900: Scholarship in the Practice of Medicine (1 credit hour)

Scholarship in the practice of medicine is a longitudinal course designed to integrate knowledge and skills acquired in previous course work, particularly the Research Methods and Writing course, with the student's ongoing professional work activities. This is a summative project addressing either a clinically applicable or educationally relevant subject. The project format will be patterned after the action research style in which practical problems are engaged by

practitioners resulting in implementable change. Students will present their project results to DMS peers and faculty, and be suitable for presentation or publication to a broader audience.

DMS 905: Medical Conference II (3 credit hour)

Each graduating student will attend this on-site conference to present their Scholarly project to peers and DMS faculty. The conference will culminate with the DMS graduation ceremony and related activities.

DMS 910 Adult Learning Principles (3 credit hours)

Learning is in every component of the human experience. Understanding how adults learn and apply expertise to practical everyday situations provides the student opportunities to broaden understandings regarding the capacity of the human mind, what motivates learning and empowers others. This course introduces student to the theory and practice of adult education emphasizing those theories, models, and principles applied to the workplace and other adult learning venues. Students will explore adult learning in different contexts and become acquainted with relevant issues as well as the philosophies and methodologies utilized within adult education.

DMS 911 Perspective and Strategies in Teaching and Learning (3 credit hours)

The focus of this course is on examining the symbiotic relationship between teaching and learning (instructor-student) in the framework of higher education programs. The instructor and students will introduce and model various research-based strategies and learning and instruction theories regarding their nature and use. Students will also explore issues surrounding the effective use of different instructional strategies in teacher-student interactions.

DMS 912 Group Methods and Processes (3 credit hours)

This course focuses on communication skills for upper-level education leaders. Students will explore group dynamics, communication within groups, controversy and creativity, managing conflict, and team development. Students will apply course concepts through self-analysis, teamwork, case studies, action research projects, and simulations. Other course concepts will include group goals, social interdependence and trust, power, decision-making, and diversity.

DMS 914 Organizational Assessment and Evaluation (3 credit hours)

The content of this course focuses on the processes associated with different models and approaches to program evaluation, problem identification and formulation, and the factors that impact assessment and evaluation in organizations. Considerations will include analytical procedures associated with developing and maintaining learning organizations with the goal of establishing sustained quality improvement based on data acquisition, analysis, and distribution among stakeholders. Students will research, discuss, and describe how to implement standards and methods associated with managing quality within social organizations and will compare and contrast those with equivalent approaches in manufacturing systems.

DMS 930: Clinical Application in Primary Care (6 credit hours)

The course seeks to build on the clinical knowledge achieved in the medical science modules and to develop clinical reasoning skills for professional practice in primary care. A variety of clinical case scenarios of undifferentiated patient complaints will develop and enhance each practitioner's critical thinking skills and enhance the breadth and depth of medical knowledge.

Students will be challenged to work through cases and provide their clinical reasoning to peers and faculty through discussion boards and video conferencing. These cases draw from a variety of clinical settings and have a broad application to patient care.

DMS 930 - E: Clinical Application in Emergency Medicine (6 credit hours)

The course seeks to build on the clinical knowledge achieved in the medical science modules and to develop clinical reasoning skills for professional practice in emergency medicine. A variety of clinical case scenarios of undifferentiated patient complaints will develop and enhance each practitioner's critical thinking skills and enhance the breadth and depth of medical knowledge.

Students will be challenged to work through cases and provide their clinical reasoning to peers and faculty through discussion boards and video conferencing. These cases will require care from the emergency medicine clinician's perspective. The student will develop knowledge and skills for practice in the emergency room.

DMS 930 - I: Clinical Application in Internal Medicine (6 credit hours)

The course seeks to build on the clinical knowledge achieved in the medical science modules and to develop clinical reasoning skills for professional practice in hospital medicine. A variety of clinical case scenarios of undifferentiated patient complaints will develop and enhance each practitioner's critical thinking skills and enhance the breadth and depth of medical

Students will be challenged to work through cases and provide their clinical reasoning to peers and faculty through discussion boards and video conferencing. These cases will require care from the hospitalist's perspective. The student will develop knowledge and skills for practice in the hospital setting.

DMS 940: Clinical Residency (6 credit hours)

The residency is designed to enhance the student's application of clinical knowledge and skills while employed and practicing in the clinical setting. The student will demonstrate competency development in the six core competency areas of patient care; medical knowledge; practice-based learning and improvement; interpersonal and communication skills; professionalism; and systems-based practice. Additionally, this course will encourage the student to explore ways to overcome the common threats to successful clinical practice, such as provider burnout, work satisfaction, lack of resource access and more.