

# DOCTOR OF OSTEOPATHIC MEDICINE (DO)

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## **DO 1102. Fund of Patient Safety & Clinical Qual I. (0.5 Credit Hours)**

This online course is designed to provide medical students with an understanding of the circumstances related to patient safety within the health care setting. Topics covered include the basic vocabulary and concepts related to patient safety, the effect of systems on patient care, strategies for organizational change and team-building to achieve health care safety and quality, the impact of culture and teamwork on clinical outcomes, the root causes of clinical errors and how to learn from them, the basic vocabulary and concepts of clinical quality and risk, and models for assessing the improving quality.

## **DO 1103A. Professional Certs I A. (0.5 Credit Hours)**

The Professional Certifications IA course includes three required components for first-year DO students to accomplish. All students are required to achieve certification in Basic Life Support and Bloodborne Pathogens Training during the first academic year, and this training is a part of Professional Certifications I. A disaster preparedness session with panelists from federal, state and local agencies introduces students to the many facets of disaster response and mitigation.

## **DO 1103B. Professional Certs I B. (1 Credit Hour)**

This course encompasses personal development by giving students training in crafting a professional curriculum vitae. All university-wide interprofessional and professional integrity activities designed to give students authentic work-related experiences are included in this course as well. Lastly, students will maintain their Basic Life Support skills.

## **DO 1110A. Professional Certs I. (0.5 Credit Hours)**

The Professional Certifications I course includes three required components for first-year DO students to accomplish. All students are required to achieve certification in Basic Life Support and Bloodborne Pathogens Training during the first academic year, and this training is a part of Professional Certifications I. A disaster preparedness session with panelists from federal, state and local agencies introduces students to the many facets of disaster response and mitigation.

## **DO 1110B. Prof Certs & Hlth Team Env I. (1 Credit Hour)**

The Certifications/Development domain of this course encompasses personal development by giving students training in crafting a professional curriculum vitae. All university-wide interprofessional and professional integrity activities designed to give students authentic work-related experiences are included in this course as well. Students will maintain their Basic Life Support skills. The Patient Safety/Quality Improvement domain of this course is designed to provide medical students with an understanding of the circumstances related to patient safety within the health care setting. Topics covered include the basic vocabulary and concepts related to patient safety, the effect of systems on patient care, strategies for organizational change and team-building to achieve health care safety and quality, the impact of culture and teamwork on clinical outcomes, the root causes of clinical errors and how to learn from them, the basic vocabulary and concepts of clinical quality and risk, and models for assessing the improving quality.

## **DO 1120. Med Informatics & Translational Learning. (2 Credit Hours)**

This course focuses on the student's professional development in medical informatics, evidence based medicine and research appraisal. The student will gain basic skills in the domains of statistical applications in medicine, data base querying, research design analysis and critical evaluation of the literature. Through an integrative format the student will engage in strategic exercises designed to develop skills in translational learning essential for independent practice. In this developmental course design, the student will progress from a lecture based instructional design toward an application and analytical design focusing on team-based and self-directed learning. The material covered will address the concepts tested on the national board examinations.

## **DO 1120B. Med Informatics & Translational Learning B. (1 Credit Hour)**

This course is part two of a two-term curriculum focused on the student's professional development in evidence-based medicine. Students will gain and practice basic skills using current technologies and information services to locate the health sciences literature, critically appraise the evidence for its validity and applicability, and evaluate the statistical significance of the research.

## **DO 1125A. Osteopathic Clin Med & Anat I. (9.5 Credit Hours)**

This course introduces the foundational clinical skills, osteopathic principles and practices, and anatomical sciences necessary to become an osteopathic physician. Students will study the anatomical sciences through use of cadaver dissection while also integrating the study of clinical and osteopathic skills through hands on laboratories and practical experiences. Students will apply basic clinical and osteopathic manipulative techniques necessary to confirm wellness or detect disease and dysfunction. The course is the first in a two-part series.

## **DO 1125B. Osteopathic Clin Med & Anat II. (8 Credit Hours)**

This course expands on the foundational clinical skills, osteopathic principles and practices, and anatomical sciences necessary to become an osteopathic physician. Students will study the anatomical sciences through use of cadaver dissection while also integrating the study of clinical and osteopathic skills through hands on laboratories and practical experiences. Students will apply basic clinical and osteopathic manipulative techniques necessary to confirm wellness or detect disease and dysfunction. The course is the second in a two-part series.

## **DO 1129A. Foundations of Physicianship IA. (2 Credit Hours)**

This course is designed to introduce the student to the psychological, social, behavioral and cultural basis of clinical medicine. The focus will be on common patient problems and the circumstances that evoke important behavioral/emotional responses and that require the sensitive application of knowledge and skill for effective patient care. The course will serve as an introduction to managing these problems, and assist the student in more effectively and respectfully communicating with patients and peers. The course also creates opportunities for students to explore and grow into their identities as professional healers via conversation, reflection, and activities designed to stimulate critical thinking about what it is to choose the life of a physician. It is designed to facilitate the development of student knowledge, skills, attitudes and professional maturity necessary for excellence in the care of patients as well as the care of one's own professional well-being.

**DO 1129B. Foundations of Physicianship IB. (1 Credit Hour)**

This course is part two of a year-long curriculum focusing on the development of a student's identity as a physician. Part two specifically emphasizes the role of sociocultural factors in medicine, taking a broad view of what it means to be culturally-competent. In this course we will focus on the development of 1) knowledge of health disparities and how culture shapes experience, 2) awareness of one's cultural assumptions and biases, and 3) skills in transferring this knowledge and awareness to patient care. The course is divided into three formats consistent with these aims. In large-group lecture you will be exposed to core concepts of intersectionality, explanatory models of illness, and health disparities. Through small-group sessions you will become aware of how culture shapes individual behavior and thinking. Finally, in laboratory sessions you will begin to transfer your knowledge and awareness to patient care through interactive meetings with community members. The course is designed to meet the requirements of the National Board of Osteopathic Medical Examiners (NBOME) competencies in Professionalism by helping you recognize personal biases, consider the impact of social inequalities on healthcare, and incorporate cultural humility into patient care.

**DO 1130A. Physn Profess: Ident/Interact/Ethics A. (3.5 Credit Hours)**

The components in this course are designed to foster the cognitive, philosophical and relational skills requisite to developing one's identity as a physician and healer. The Professional Identity and Interactions component will introduce the student to the psychological, social, behavioral and cultural basis of clinical medicine. Its focus will be common patient problems and circumstances which evoke important behavioral/emotional responses, requiring the sensitive application of knowledge and skill for effective patient care. Management and communication strategies will be addressed and will highlight respectful communication with patients and peers. Exploration and growth in professional identity formation will occur via conversation, reflection, and activities designed to stimulate critical thinking about the calling to be a physician. Stress will be placed on the development of student knowledge, skills, attitudes and professional maturity necessary for excellence in the care of patients as well as one's own professional well-being. The Introduction to Medical Ethics component acquaints the student with moral-ethical dilemmas in medicine and provides tools to appropriately address them. Students explore basic ethical concepts, theories and principles, and the importance of morality, virtues and values. Additionally, the interaction between the law and ethics and the importance of maintaining professional behavior and standards are introduced. Students learn to recognize the impact of values and beliefs they bring from their families, religion, culture, education and personal experiences. Developing moral and ethical reasoning skills is also emphasized.

**DO 1130B. Physn Profess: Ident/Interact/Ethics B. (1 Credit Hour)**

The components in this course are designed to foster the cognitive, philosophical and relational skills requisite to developing one's identity as a physician and healer. The Culturally Responsive Care component builds on the Professional Identity and Interactions component, specifically emphasizing these topics as they relate to sociocultural factors in medicine and exploring what it means to be culturally competent. It focuses on the development of 1) knowledge of health disparities and how culture shapes experience, 2) awareness of one's cultural assumptions and biases, and 3) skills in transferring this knowledge and awareness to patient care.

**DO 2021. Dying in America: Palliative and End-Of-. (1 Credit Hour)**

This elective course is based upon the Education for Physicians on End-of-Life Care (EPEC) Curriculum. An emphasis is placed on selected components of the EPEC curriculum and the arts and the humanities are incorporated into the elective to foster a more comprehensive understanding of the psycho-social-spiritual of death and dying. This elective seeks to provide students with skills and tools to assist them in ameliorating, but not eliminating the fear, negative images, and avoidance responses to death that are common among health care professionals who have traditionally viewed death as failure. This elective also seeks to provide students with skills and tools to assist them in providing competent and compassionate End-of-Life Care and to assist them in the development of resilience so necessary for health care professionals who care for those with serious life limiting conditions and terminal illnesses.

**DO 2030. LGBTQIA+ Health Care. (1 Credit Hour)**

This elective focuses on the healthcare needs of LGBTQIA+ patients. In the U.S., 1 in 5 LGB individuals (and likely even more TQIA+ individuals) avoid healthcare based on previous experiences of discrimination from practitioners and staff. Health science schools rarely include formalized education specific to LGBTQIA+ patients in their curriculum, leaving practitioners ignorant of how to avoid such discrimination and how to meet their patient needs. In this course, students will discuss the unique healthcare needs of these communities, practice culturally competent communication skills in a standardized patient activity, and learn how to find resources that describe evidence-based best practices for treatments.

**DO 2040. Epigenetics of Common Diseases. (0.5 Credit Hours)**

The course provides an overview of the current state of research on the contributions of epigenetic factors to human health and disease. Students will review landmark publications on DNA methylation and histone modifications in common human disorders of metabolism, with special emphasis on the influence of environmental factors on epigenetic programming.

**Prerequisite:** #take FDSC\*1101 or FDSC\*1201

**DO 2044. The Healer's Art. (1 Credit Hour)**

The Healer's Art elective addresses the growing loss of meaning and commitment experienced by physicians in today's stressful health care system. Prospective physicians arrive in medical school with high ideals and altruism, but many of them report that during residency and later practice their high principles seem to atrophy and fall away. The rate of physician dropout is climbing, owing to many external and internal pressures that wear away at the ideals and goals of many. The Healer's Art is a process-based course that enables students and faculty to come together as a sharing community that helps both develop the ability to find meaning in their chosen career, throughout their lives.

**DO 2083A. Ultrasound A. (0.5 Credit Hours)**

The Ultrasound elective will focus on disease cases and offer the use of ultrasound in the diagnosis of different disease conditions. The clinical information, physical findings, laboratory studies, and ultrasound findings will be used to confirm the differential diagnosis in a small group setting. Gross and microscopic pathologic findings will be used to further understand ultrasound images of particular pathologic condition diagnosable by ultrasound. Clinical, radiographic (especially ultrasound), and pathologic correlations will be reviewed.

**DO 2083B. Ultrasound B. (0.5 Credit Hours)**

The Ultrasound elective will focus on disease cases and offer the use of ultrasound in the diagnosis of different disease conditions. The clinical information, physical findings, laboratory studies, and ultrasound findings will be used to confirm the differential diagnosis in a small group setting. Gross and microscopic pathologic findings will be used to further understand ultrasound images of particular pathologic condition diagnosable by ultrasound. Clinical, radiographic (especially ultrasound), and pathologic correlations will be reviewed.

**DO 2084. Artificial Intelligence in Biomedicine. (1 Credit Hour)**

This is a 10-week elective for DMU students interested in learning about artificial intelligence (AI) and its potential use and application in Biomedicine. While this is an introductory course covering some of the basics of AI, each lesson will be followed by an application exercise which will provide the student with a hands-on opportunity to apply an AI approach covered in the lesson to a sample problem in biomedicine. Students will also be assigned to teams to present their final presentation.

**DO 2100. Mentored Research Elective. (1-2 Credit Hours)**

This elective course is designed to introduce students to conducting research in lab and clinical settings. Students must have a faculty mentor agree to supervise them prior to enrolling in the course. The specific goals for the research project will be determined along with the faculty mentor.

**DO 2102. Funds of Pt Safety & Clin Qual II. (0.5 Credit Hours)**

This online course is designed to provide medical students with a practical application of patient safety concepts and principles within the health care setting. Topics covered include how to communicate with patients and families, the relationship between infection control and patient safety, how adverse events associated with surgical and invasive procedures occur, and how to utilize safe practices within the workplace.

**DO 2103A. Professional Certifications II A. (1 Credit Hour)**

The Professional Certifications II A course encompasses BLS certification and Bloodborne Pathogens Training as well as an American Red Cross module that allows students to scaffold onto what they learned in the Professional Certifications I course. Students will also participate in an interprofessional education activity (either in the fall or spring) and are required to complete the online Collaborative Institutional Training Initiative courses that will nurture their understanding of the responsible conduct of research and principles of human-subjects research. State-mandated training for reporting child and dependent elder abuse will be completed. Additionally, students will attend a DMU Research Symposium presentation aimed at exploring recent advances in medical and practice-based improvement research. Lastly, students will engage in board readiness activities designed to enhance their preparedness for COMLEX Level 1 at the end of the second academic year. All these activities are designed to ensure student compliance with certifications that demonstrate lifelong learning and increase student awareness of subjects that will enhance care for their future patients.

**DO 2104. Clin Sci I: Pharm, Hem, Cv, Res. (9 Credit Hours)**

This course will introduce the basic principles of medical pharmacology as well as the clinical utility, mechanisms of action, and adverse effects of agents relevant to different organ systems. The course then integrates the foundational and clinical sciences related to the cardiovascular, hematological, and respiratory systems with an emphasis on pathology/pathophysiology, the interpretation of clinical findings, generation of a differential diagnosis, use of pharmacotherapy, patient management, and prevention of disease.

**DO 2105. Clin Sci II: Neuro/Psych, Uro-genital. (9 Credit Hours)**

This course incorporates the foundational and clinical sciences related to obstetrics/gynecology, the renal system, psychiatry and neurology with an emphasis on pathology/pathophysiology, the impact of cultural and societal factors, the interpretation of clinical findings, generation of a differential diagnosis, use of pharmacotherapy, the management of patients, and prevention of disease.

**DO 2106. Clin Sci III: Endo, GI, PMN. (6.5 Credit Hours)**

This course integrates the foundational and clinical sciences related to medical nutrition therapy as well as the endocrine and gastrointestinal systems with an emphasis on pathology/pathophysiology, the interpretation of clinical findings, generation of a differential diagnosis, use of pharmacotherapy, the management of patients, and prevention of disease.

**DO 2107. Clin Sci IV: ID, Spec Med, Ger. (5.5 Credit Hours)**

This Clinical Sciences IV course highlights the important role that an awareness of the causes and sequelae of infectious diseases have on overall health. Attention will be paid to the role of public health in the prevention and mitigation of infections. Additionally, the impact and management of diseases involving the head and neck, integument and musculoskeletal system will be reviewed. Finally, the health care needs of geriatric population will be studied, including both individual and population health interventions.

**DO 2110A. Prof Certs & Hlth Team Env II. (1 Credit Hour)**

The Professional Certifications domain of the course encompasses BLS certification, Bloodborne Pathogens Training and an American Red Cross module. Students participate in an interprofessional education activity (either in the fall or spring) and will complete training on responsible conduct of research, principles of human-subjects research and mandatory child/dependent elder abuse reporter training. Students will attend a DMU Research Symposium presentation on medical and practice-based improvement research. Board readiness activities will enhance students' preparedness for COMLEX Level 1. The Patient Safety domain of this course provides students with practical applications of patient safety concepts and principles within the health care setting. Topics covered include how to communicate with patients and families, the relationship between infection control and patient safety, how adverse events associated with surgical and invasive procedures occur, and how to utilize safe practices within the workplace. All activities are designed to ensure student compliance with certifications that demonstrate lifelong learning and increase student awareness of subjects that will enhance care for their future patients.

**DO 2110B. Professional Certs II. (1 Credit Hour)**

The Professional Certifications II course encompasses recertification in Basic Life Support and Bloodborne Pathogens Training and Advanced Cardiac Life Support certification, the next stage in emergency health training. Training in patient privacy regulations before clinical rotations is also included in this certifications course - HIPAA: Health Insurance Portability and Accountability Act of 1996. All these activities are designed to ensure student compliance with certifications that demonstrate lifelong learning and increase student awareness of subject areas that will enhance care for their future patients. Lastly, all students will be required to attend targeted board review subjects culminating in a mandatory diagnostic exam, and an in-person, timed-COMSAE examination.

**DO 2120. Evidence-Based Medicine. (1 Credit Hour)**

This course is part one of a two-semester curriculum focused on the student's professional development in evidence-based medicine. Students will gain and practice basic skills using current technologies and information services to locate the health sciences literature, critically appraise the evidence for its validity and applicability, and evaluate the statistical and clinical significance of the research. The material covered will address the concepts tested on the national board examinations.

**DO 3144A. Clinical Rotations Year III A. (20 Credit Hours)**

Third year clinical rotations set the foundation for clinical learning and serve as preparation for fourth-year rotations and post-graduate training. The core rotations include Family Medicine (8 weeks), Internal Medicine (4 weeks), Pediatrics (4 weeks) and General Surgery (4 weeks). Non-core required rotations consist of Emergency Medicine (4 weeks in 3rd or 4th year), OB/GYN (4 weeks) and Psychiatry (4 weeks). Medical or surgical sub-specialties (4 weeks) and selective (4-8 weeks) rotations are also completed.

**DO 3144B. Clinical Rotations Year III B. (20 Credit Hours)**

Third year clinical rotations set the foundation for clinical learning and serve as preparation for fourth-year rotations and post-graduate training. The core rotations include Family Medicine (8 weeks), Internal Medicine (4 weeks), Pediatrics (4 weeks) and General Surgery (4 weeks). Non-core required rotations consist of Emergency Medicine (4 weeks in 3rd or 4th year), OB/GYN (4 weeks) and Psychiatry (4 weeks). Medical or surgical sub-specialties (4 weeks) and selective (4-8 weeks) rotations are also completed.

**DO 3151. Introduction to Health Systems & Policy. (1 Credit Hour)**

This online course is designed to provide medical students with an overview of the U.S. health care system, to include content related to: reimbursement for health services, the organization of the health care delivery system, access to health services, public health issues, managed care and quality, the impact and importance of evidence-based medicine, the professionals that support physicians in practice, supply and demand issues related to physicians, specialty (physician) distribution, population-based medicine, community health assessment and the physician's role and more. Formal and informal, financial and political relationships between and among system sectors will be considered. Regional patterns of care, trends, problems and potential solutions will be discussed/included.

**DO 3152. Research in Medicine. (1 Credit Hour)**

This self-paced, online course focuses on student development in application of the scientific method. Through this course, students gain basic skills and hands-on experiences in health care research. Students receive training in performing focused and relevant literature research and accordingly making clinical judgments. Students actively participate in research projects using public health data to refine their skills in hypotheses testing and verification, data analysis and authoring scientific abstracts.

**DO 3161. NAMI Provider Educator Program. (0.5 Credit Hours)**

The National Alliance on Mental Illness (NAMI) Provider Education Program is a 15-hour program designed to increase student understanding of the experience of being diagnosed with a mental illness and treated for it, and the experiences of family members of individuals with a mental illness. The program combines didactic information, small group activities, and time for reflection to allow students to increase their understanding and comfort in treating individuals with mental illness.

**DO 4100. Medical Genomics. (0.5 Credit Hours)**

This course utilizes the American Society of Pathology Undergraduate Training in Genomics (UTRIG) curriculum to provide future physicians the tools to practice individualized medicine in the genomics age. Centered around four interactive modules and simulations, learners will learn the use of online genomics tools, how to take patient genetic histories, how to construct genetic pedigrees and how to weigh genetic factors in the evaluation of cancer risk/prognosis. In addition, the course will reinforce pathology concepts through the guided interpretation of histology slides related to familial cancer syndromes.

**DO 4144A. Clinical Rotations Year IV A. (8 Credit Hours)**

Fourth year clinical rotations consist primarily of elective experiences. If Emergency Medicine was not taken in the third year it is required in the fourth year. Rotations must also include a choice of either Rural Medicine, International Medicine, or Community Medicine.

**DO 4144B. Clinical Rotations Year IV B. (16 Credit Hours)**

Fourth year clinical rotations consist primarily of elective experiences. If Emergency Medicine was not taken in the third year it is required in the fourth year. Rotations must also include a choice of either Rural Medicine, International Medicine, or Community Medicine.

**DO 4144C. Clinical Rotations Year IV C. (16 Credit Hours)**

Fourth year clinical rotations consist primarily of elective experiences. If Emergency Medicine was not taken in the third year it is required in the fourth year. Rotations must also include a choice of either Rural Medicine, International Medicine, or Community Medicine.

**DO 4160. Clinical Comprehensive Assessment. (1 Credit Hour)**

Students return to campus at the start of the 4th year to assess their current clinical knowledge and skills in order to identify gaps and improve any deficiencies. The week consists of standardized patient encounters, simulated patient encounter, osteopathic manual medicine assessment, order-writing exercise, patient handoff exercise, review of common radiology findings, review of EKGs, discussion of professionalism, review of the Electronic Resident Application Service (ERAS), and presentation on the residency match process. The goals are to provide students with an assessment of their overall clinical knowledge and offer an objective snapshot regarding their current extent of didactic and clinical competency within the continuum of medical education. In addition, the COMLEX Level 2-PE was an assessment designed to measure a DO candidate's competencies in six fundamental clinical skills for osteopathic medical practice. COMLEX-USA Level 2-PE was suspended indefinitely in February 2021 and formally discontinued in June 2022. COMLEX-USA candidates are currently verified by attestation from their COM dean that they are proficient in these important clinical skills. Assessments during CCA Week help the COM dean determine clinical proficiency. Students must have successfully completed at least 20 clinical weeks of 3rd year clerkships in order to participate in CCA Week. CCA Week is required of all students. A passing grade in CCA Week is required to advance to the 4th year.