



WESTERN MICHIGAN UNIVERSITY

— Homer Stryker M.D. —

SCHOOL OF MEDICINE

GRADUATE CERTIFICATE IN APPLIED CLINICAL INFORMATICS



TOPICS OF STUDY

- Overview of Biomedical and Clinical Informatics
- Electronic Health Records
- Computerized Order Entry Systems
- Human computer usability and interaction issues
- EMR alerts – design and best practice
- Clinical Decision Support – sources of evidence based medicine, best practice guideline development and measurement, knowledge development and patient safety consideration
- Data mining and analysis – comparative evaluation of treatment, probability theory, decision analysis, data analysis technologies, “big data”
- Health information exchange and interoperability
- Database design, database management systems and SQL
- Network design and function within a healthcare system
- Mobile technology in healthcare
- Regulatory requirements and technology adoption incentive programs: HIPAA, the HITECH Act, Meaningful Use and Accountable Care Organizations
- Clinical Quality Reporting: available measures, analysis of health care outcomes, STEEP Quality Measures and Institute of Medicine initiatives
- Telemedicine
- Workflow process analysis and redesign
- Leadership roles of clinical informaticists in healthcare organizations: CMIO, CMO, and clinician champions
- Health IT support of interdisciplinary teams in healthcare
- Governance and change management in the healthcare technology connected organization
- Ethical and legal issues

The field of clinical informatics is intended to enhance healthcare by analyzing, designing, and implementing advanced information and communication technologies and processes that improve individual and population health outcomes, improve patient care, and strengthen the clinician-patient relationship.

Clinical informaticians use their knowledge of medicine, their experience in caring for patients combined with their understanding of informatics concepts, methods, and tools to:

- assess information and knowledge needs of healthcare professionals and patients
- characterize, evaluate, and refine clinical processes
- develop, implement, and refine clinical decision support systems
- lead or participate in the procurement, customization, development, implementation, management, evaluation, and continuous improvement of clinical information systems

Western Michigan University Homer Stryker M.D. School of Medicine is offering a graduate certificate in applied clinical informatics designed to serve clinicians, healthcare administrators, healthcare information technology specialists, and other healthcare professionals to enhance their knowledge of clinical informatics and develop new skills to improve the efficiency and effectiveness of healthcare delivered in clinical settings. The program is specifically geared for professionals who work in or support clinical environments and who want a course of study that builds on their training and experience.

Admissions: We are looking for students who have demonstrated medical knowledge and clinical experience with medical terminology, concepts, and standard clinical processes. Admissions requirements and application will be available January 1, 2016.

Program Details: The certificate program is comprised of two semesters held in the fall and spring. The program combines on-campus and online instruction, with on-campus classes held on alternate Saturdays to accommodate the schedules of working clinicians. The inaugural class will matriculate in Fall 2016.

Instruction is provided at our state-of-the-art facility on the W.E. Upjohn M.D. Campus.

Interested in learning more? Visit med.wmich.edu/clinical-informatics

**Email admissions@med.wmich.edu to join our mailing list
or call 269.337.6100.**