



Master of Science in Medical Informatics (MSMI)



The bridge between medicine and information technology

The U.S. health care system is in a period of remarkable transition. New and innovative Information Technology (IT) solutions are being developed and deployed in a wide variety of health care environments to enhance quality of care, improve patient safety and reduce costs.

Most everyone agrees that greater use of IT in health care is not only inevitable, but also of high value to both patients and providers. Medical informatics is the science of applying the disciplines of medicine, business and IT to support the health care delivery process and promote measurable improvements in both quality of care and cost-effectiveness.

The MSMI Program

The MSMI program stands at the forefront of this trend. It combines the disciplines of medicine, business and IT. It appeals to a diverse group within the health care profession. Our students come from a variety of settings including hospitals, health care maintenance organizations, insurance companies, software companies, consulting firms, government agencies and research institutions. They range from physicians to administrators to clinical nurses to IT professionals. They come with a single purpose in mind: to find a way to implement and control the complex information systems within health care.

Since 1997, MSOE and Medical College of Wisconsin (MCW) have jointly offered the MSMI degree. It combines the strength of MCW, a leading provider of medical education

and research, with the disciplines of business and IT from MSOE's Rader School of Business.

Bridging the gap between IT and medicine

Hospitals and other health care providers are faced with tremendous challenges today with pressure to reduce costs without reducing the quality of patient care. The MSMI degree provides you with the skills and knowledge to bridge the gap between clinical service, information systems and health care business operations.

A Practical Approach

Unlike most other MI programs, the MSMI does not only focus on theory. Rather, it provides you with practical, hands-on experience.

We emphasize business principles so that you can work with other business and IT experts to develop cost-effective solutions. We stress project management skills so you are prepared to participate in and lead multidisciplinary teams. Your classroom experiences will carry over into your career the very next day.

Our program does not attempt to cross-train individuals. We will not make physicians or nurses into network engineers or vice versa. Rather, we give you the knowledge and skills to identify, recruit, and work with expert resources needed for the successful project.

All classes are offered in the evening, making it convenient for working professionals.

Program Director: Dr. John Traxler;
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Master of Science in Medical Informatics Curriculum

Part-time Track¹

		Credits	Fall	Winter	Spring	Summer
MI13101	Introduction to Medical Informatics I	3	X			
MI13204	Information Systems Project Management	3	X			
MI13102	Introduction to Medical Informatics II	3		X		
MI743	Principles of Health care Management	3		X		
MI756	Health care Provision and Payment	3			X	
MI885	Computer Network and Design	3			X	
	Elective ²	3				X
MI786	Medical Informatics Journal Club ³	1				X
MI13202	Ethics in Medical Informatics	3	X			
MI693	Intermediate Statistics	3	X			
MI787	Healthcare Systems Analysis and Design	3		X		
MI720	Six Sigma Quality and Patient Safety	3		X		
MI786	Medical Informatics Journal Club ³	1		X		
MI783	Database Structures and Processing	3			X	
	Elective ²	3			X	
MI13297	Internship or Research Project I	3				X
MI13298	Internship or Research Project II	3				X
MI13203	Health care Decision Support	3	X			
MI789	Medical Informatics Case Study Seminar	3	X			
MI786	Medical Informatics Journal Club ³	1	X			

¹ All classes are offered in the evening during the terms indicated. Part-time students may enroll in fewer courses each term than listed above. However, students are expected to complete all degree requirements within five years of beginning the program.

² Electives may be taken from any other graduate program at MSOE or MCW.

³ The Medical Informatics Journal Club (MI786) is a one-credit course offered every term (including summer).