

Master of Science in Pharmaceutical Sciences



COLLEGE OF PHARMACY AND
PHARMACEUTICAL SCIENCES
THE UNIVERSITY OF TOLEDO

Health Outcomes and Socioeconomic Sciences (formerly Pharmacy Health Care Administration)

Health Outcomes and Socioeconomic Sciences is the pharmaceutical science focusing on patient and population healthcare outcomes, comparative effectiveness research, economic outcomes of drug and disease management, and the social and behavioral influences of patient and healthcare provider actions. Graduate studies in Health Outcomes and Socioeconomic Sciences embrace a wide range of drug, disease, and sociobehavioral outcomes concepts, creating many challenging research opportunities. Examples of research projects include: the impact of medication therapy management services on health and economic outcomes, factors that influence prescription pricing, the value of targeted programs on the underserved, influences of medication adherence for health safety net patients, the economic benefits of computers in community pharmacy, legal factors that influence the rate at which new drug products are approved for distribution in the United States, and the impact of change on health care delivery systems as they are organized, financed and managed.

About the Program

The Master's degree in Health Outcomes and Socioeconomic Sciences has a research focus. A thesis is required for graduation, and most students complete one or more manuscripts for publication by graduation. The faculty represents the diverse opportunities within this discipline, and each faculty member has an established record of research and publication and is nationally recognized in his or her area of interest. Students choose a track for their educational focus in outcomes research, pharmacoconomics, social and behavioral sciences, or business administration. Tuition assistance and cost-of-living stipends are available competitively.

The graduate program in Health Outcomes and Socioeconomic Sciences at The University of Toledo educates its students to:

- Perform as competent researchers in health outcomes, pharmacoconomics, and social and behavioral science
- Compete successfully for admission into PhD programs in prestigious universities across the country
- Work in many areas of the healthcare and pharmaceutical industry, including contract research organizations, managed care insurance providers, and regulatory affairs
- Become effective leaders in state and national professional organizations

Health Outcomes
and Socioeconomic
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College of Pharmacy and
Pharmaceutical Sciences

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utoledo.edu/pharmacy/academic_programs



Curriculum

Programs of study are available to accommodate varying interests and scholastic needs. Each program consists of core course work, elective course work and research.

Core courses represent the areas of academic instruction deemed essential to equip all students with the necessary theoretical base and skills for career success. Elective courses allow a student the opportunity to study a specific area in greater depth or to gain a broader base in several areas. The research component provides the opportunity to investigate a pharmacy health care administration problem under the direction and guidance of a research committee.

Elective courses can be selected from management, marketing, economics, finance, accounting, sociology, psychology, mathematics, quantitative methods, computer sciences and business administration.

Each student's Plan of Study will be designed to accommodate varying interests and scholastic needs. Each student's plan will be reviewed by the division coordinator and approved by the student's major adviser.

Why Study Health Outcomes and Socioeconomic Sciences at The University of Toledo?

Our graduate program has been successful in providing students with a wide variety of career options. The Health Outcomes and Socioeconomic Sciences division is open to inter- and intra-departmental, institutional, industrial and personal collaborations in research that will expand the knowledge within science and foster cooperation between institutions.

The graduate programs are intended for highly motivated students with an appropriate baccalaureate or advanced degree. Potential students are encouraged to visit the College of Pharmacy and Pharmaceutical Sciences and discuss their career plans with the Health Outcomes and Socioeconomic Sciences faculty. A limited number of graduate assistantships are available. Assistantships are awarded on the basis of the school's program needs.

Pharmaceutical Care and Outcomes Research Lab

The Pharmaceutical and Care Outcomes Research (PCOR) lab was founded in 2005 by Dr. Sharrel Pinto and is a state-of-the-art facility with cutting edge research. The PCOR Lab is the first of its kind in the United States. The lab applies health outcomes and socioeconomic research methodology to the practice of pharmacy so as to develop, implement and evaluate programs and practices that lower costs and improve outcomes.

The work done within the PCOR lab is nationally and internationally recognized and has won numerous awards and honors. The PCOR lab resides within the Health Outcomes and Socioeconomic Sciences division of the college and is comprised of faculty and researchers who have a keen interest and expertise in economic, clinical, and humanistic outcomes research. The PCOR lab fuels creativity, inspires students and faculty, and nurtures excellence in research and teaching.

The mission of the PCOR lab is:

- To improve healthcare costs and quality by working collaboratively with clinicians, payers and patients.
- To advance student learning by providing students a platform to apply their classroom learning to various real-world projects.
- To disseminate research findings by presenting at professional meetings, publishing in peer-reviewed journals, conducting educational and training programs, and providing consultation services to individuals and organizations.

Health Outcomes and Socioeconomic Sciences Faculty

Monica Holiday-Goodman, RPh, Ph.D., Professor and Program Director of Health Outcomes and Socioeconomic Sciences

Dr. Monica Holiday-Goodman is professor and program director of Health Outcomes and Socioeconomic Sciences at The University of Toledo College of Pharmacy and Pharmaceutical Sciences. She received a bachelor of science degree in pharmacy and a Ph.D. in pharmacy administration from the former Northeast Louisiana University, presently The University of Louisiana at Monroe. Dr. Holiday-Goodman's teaching and research focus on the sociocultural, behavioral and administrative aspects of pharmacy practice. Her primary research interests are health disparities and barriers to care for underserved patients. During her twenty-three year tenure at The University of Toledo, Dr. Holiday-Goodman has served on the thesis committees of more than 50 graduate and undergraduate students. She has received federal, state and corporate funding for her scholarly endeavors. She has numerous publications in peer-reviewed and professional journals and books. Dr. Holiday-Goodman has been invited to speak to several academic and professional audiences on the topics of Cultural Competence and Health Disparities. She was selected to participate in the AACP Academic Leadership Fellows Program in 2010-2011. Dr. Holiday-Goodman is also a registered pharmacist.

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Robert Bechtol, B.S.P.S., M.S., Clinical Assistant Professor of Health Outcomes and Socioeconomic Sciences

Bechtol works on and assists faculty and students with numerous research projects. His responsibilities include brainstorming, conducting literature reviews, assembling IRB applications, initial stages of the grant writing process, coordinating data collection methods and efforts, assisting with data analyses, assisting with manuscript writing, and presenting project progress/results to stakeholders. Bechtol's research interests include assessing different components of the pharmacy profession and the health care team, for example, studying what the future has in store for the role of pharmacy technicians in the pharmacy profession.

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Sharrel Pinto, PhD, Associate Professor and Director of the Pharmaceutical Care and Outcomes Research (PCOR) Laboratory

Dr. Pinto is the founder of the Pharmaceutical Care and Outcomes Research (PCOR) lab. Dr. Pinto's research and teaching efforts are concentrated in the area of health-related outcomes research and Medication Therapy Management (MTM). Dr. Pinto conducts practice-based research focusing on four key areas: (1.) Assessing health-related economic, clinical, and humanistic outcomes, (2.) Comparative-effectiveness research with an emphasis on identifying the impact of new and emerging interventions on outcomes, (3.) Developing performance indicators and patient-reported outcome measures, and (4.) Studying the impact of novel medication adherence tools on outcomes. She is a leading expert on MTM and serves as an expert panelist/consultant for various regional, national, and international organizations. She has numerous publications in peer-reviewed professional journals, more than 90 professional presentations, and is often invited to speak at various national and international venues.

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Varun Vaidya, PhD, Assistant Professor of Health Outcomes and Socioeconomic Sciences

Dr. Varun Vaidya is an assistant professor in The University of Toledo College of Pharmacy and Pharmaceuticals Sciences. Dr. Vaidya's primary research interests include health economics, health services research and comparative effectiveness. He has led several projects analyzing health and economic outcomes that are successfully completed and published in various peer reviewed journals. He has built and analyzed several public and proprietary large datasets to study different aspects such as medication taking behavior, economic impact of treatment modalities and social disparities in utilization of healthcare services. Dr. Vaidya frequently collaborates with faculty members within HOSS as well as experts outside UT to gain maximum benefits towards his research. Such collaborations often create opportunities for graduate students in the program to gain research experience in their early stages of career. Apart from his primary interests, he has also worked in areas such as health care technology and electronic prescribing.

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