

MSPS IN HEALTH OUTCOMES & VALUE ANALYTICS

In general, applicants must hold a baccalaureate degree in the sciences or a related field. Applicants with bachelor's degrees in other disciplines may be considered if their prior academic preparation is sufficient for graduate study in Health Outcomes and Value Analytics. Certain graduate courses may require prerequisite coursework. Any deficiencies in prerequisite preparation should be addressed as soon as possible after admission. The time required to complete the Master of Science in Pharmaceutical Sciences degree depends on the student's prior academic preparation and progress in the program. The program normally requires two years of study and research.

Applicants must meet the minimum GPA and other admission requirements established by the College of Graduate Studies.

Applicants must submit transcripts documenting all postsecondary academic work and degrees awarded and three letters of recommendation from individuals familiar with the applicant's academic preparation, abilities, and potential for graduate study. The Graduate Record Examination (GRE) is not required for admission; however, international applicants are strongly encouraged to submit GRE scores.

International applicants must satisfy the University's English language proficiency requirements.

The priority deadline for completed applications for fall admission is January 15. Applications completed by the priority deadline will receive full consideration for admission. Applications received after the priority deadline may be considered if space remains available in the program. International applicants are encouraged to apply well in advance of the deadline to allow sufficient time for application processing and other requirements associated with international enrollment.

The MS in Health Outcomes and Value Analytics (HOVA) program requires the completion of the ten courses listed below. The program is a total of 30 credit hours.

Code	Title	Hours
PHCL 6710	Fundamentals of Biostatistics and Research Analysis	3
PHM 5100	Research in Pharmaceutical Science: Ethics & Methods	3
PHM 5110	Clinical Trials and Regulatory Affairs	3
PHPR 5120	Essentials of U.S. Healthcare Delivery and Pharmacoeconomic Evaluation	3
PHPR 5130	Managed Care Pharmacy	3
PHPR 5140	Introduction to Decision Analytic Modeling in Health Outcomes Research	3
PHPR 5160	Real-World Data in Health Outcomes Research	3
PHPR 5170	Foundations of Patient-Reported Outcomes (PRO) in Healthcare Research	3
PHPR 5180	Machine Learning and AI in Health Outcomes	3

PHPR 5190	Master of Science in Health Outcomes and Value Analytics (HOVA) Capstone	3
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Combined Bachelor's to Master's - BSPS in Drug Discovery and Design to Master's of Science in Health Outcomes and Value Analytics

Undergraduate students accepted to the BSPS Drug Discovery and Design (DDAD) to MS in Health Outcomes and Value Analytics option will be admitted to the MS in Health Outcomes and Value Analytics and allowed to complete up to three graduate level classes (nine credit hours) during their final academic year of undergraduate studies. Students admitted into the pipeline program must apply for admission to the College of Graduate Studies for the semester that they intend to matriculate. They will then continue into the graduate program upon completion of the undergraduate degree requirements. The graduate coursework (up to nine hours) may be applied to the completion of both undergraduate and graduate degree requirements. It will be the joint responsibility of the faculty and administrators in the undergraduate and graduate programs to supervise students admitted to the combined program option, to ensure that the limit of nine hours taken as an undergraduate is strictly enforced, and to request that the College of Graduate Studies change their matriculation from Undergraduate to Graduate when they meet all undergraduate degree requirements.

The following provisions apply for classes taken for graduate credit: 1) graduate classes taken at The University of Toledo only after the student is accepted in the program, 2) PHCL 6710 Fundamentals of Biostatistics and Research Analysis, PHM 5100 Research Methods & Ethics, and PHM 5110 Clinical Trials and Regulatory Affairs are the approved nine semester hours of graduate credit taken as an undergraduate. Students interested in the combined program must submit a graduate admission application to the College of Graduate Studies.

- PLO 1. Describe and comply with the standards of ethical conduct of research.

- PLO 2. Develop a novel research project while applying pharmaceutical science knowledge and skills to solve problems.
- PLO 3. Apply knowledge and skills of pharmaceutical sciences while working in a team format
- PLO 4. Interpret and critically evaluate literature in pharmaceutical science disciplines while identifying gaps in current knowledge.
- PLO 5. Apply pharmaceutical science principles while designing, implementing, and analyzing the results of an independent research project in a discipline.
- PLO 6. Propose and defend novel research in both written and oral forms.