

# Elective Courses

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**MCW School of Pharmacy**

*Elective Courses*

Course	Credits	Title & Director(s)	Description
671	1.5	<b>Mental Health Issues &amp; Therapies</b> <i>Dr. Bozymski</i>	Students will learn about non-pharmacologic and pharmacologic treatment of individuals living with mental illness. They will also explore the impact of stigma on these individuals' lives through the exploration of trauma- informed care, literature/film portrayals, and historical/firsthand accounts. This course will build upon pharmacotherapy knowledge taught in PHAR 663 (Integrated Sequence: Neurology and Behavioral Health) and skills taught in PHAR 631 (Patient Care Laboratory VI) so that students will be able to assist individuals living with mental illness at a more comprehensive level.
672	1.5	<b>Clinical Pharmacogenomics</b> <i>Dr. Assem</i>	This course will give students a broad perspective on the emergence of pharmacogenomics as a new field and provide them with insight into the growing importance it will play in clinical therapeutics and future drug design. The course will be presented in three parts. The first part of the course will examine some of the common methodologies used in the application of pharmacogenomics along with the role pharmacogenomics can play in altering drug pharmacokinetics and pharmacodynamics. The second part of the course will focus on the role of pharmacogenomics in the pharmacotherapy of various diseases of the cardiovascular, CNS, hematologic, respiratory, and immune systems as well as cancer. Part three of the course will address other pertinent issues related to pharmacogenomics such as clinical testing, bioethics, drug development and toxicogenomics.
673	1.5	<b>Introduction to Outpatient Pharmacy Practice</b> <i>Dr. Pape</i>	This course incorporates prevalent and relevant outpatient pharmacy practice topics, including but not limited to anticoagulation, hyperlipidemia, hypertension, diabetes, polypharmacy, comprehensive medication management, transitions of care and motivational interviewing. This course is also designed to emulate and facilitate learning in the unique continuity-of care experiences specific to outpatient pharmacy practice. The content will be delivered using both didactic and active learning strategies via in-person and virtual platforms, with a large emphasis being placed on active student engagement. Course activities and group/individual assignments are designed to mimic scenarios students will encounter on outpatient pharmacy practice APPE rotations and include patient case workup, formal case presentations, written drug information responses and clinical/ethical debate scenarios addressing current conundrums in pharmacy practice.  Course activities are designed to foster student growth in critical thinking, writing, literature evaluation and public speaking skills.

Course	Credits	Title & Director(s)	Description
674	3	<b>Cellular &amp; Molecular Neuroscience</b> <i>Dr. Gerges</i>	This course covers essential framework and fundamental aspects of neuroscience. Emphasis is placed on the molecular and cellular mechanisms underlying various processes of the brain. Core topics include: cellular and molecular mechanisms of neural development, neuronal network, coupling of energy metabolism and neuronal activity, cellular and molecular mechanisms of memory and somatosensation, endocannabinoid signaling and the molecular architecture of the synapse.
676	3	<b>Advanced Drug Delivery Systems: Bench to Bedside</b> <i>Dr. Chauhan</i>	Students will continue to build on topics learned in Pharmaceutical Drug Delivery I and II with a larger focus on advanced drug delivery systems. Students will learn in-depth about the next-generation delivery systems through lecture, lab rotations and pharmaceutical practice prospective.
677	1	<b>Mental Health First Aid</b> <i>Dr. Bozyski</i>	Mental Health First Aid (MHFA) USA, published by the National Council for Mental Wellbeing (NCMW), is a training program designed to teach participants how to recognize, assess, and respond to signs of mental illness, including substance use disorders ( <a href="https://www.mentalhealthfirstaid.org/">https://www.mentalhealthfirstaid.org/</a> ); participants are not required to have a professional background in mental health care. Students in this course will learn about the prevalence and stigma of mental illness, how to support individuals developing a mental illness or substance use problem, and how to aid individuals experiencing a mental health crisis. Students who successfully complete the training program and pass a written exam will receive a 3-year MHFA certification through NCMW at the end of this course. Students will hear firsthand about the experiences of individuals living with mental illness via the National Alliance on Mental Illness (NAMI), as well as discuss and reflect on shared mental health experiences with peers and clinicians.
679	1.5	<b>Medical Spanish for Pharmacists</b> <i>Dr. Lor</i>	Students will develop basic and intermediate professional Spanish communication skills for pharmacists. Students will learn key vocabulary necessary to provide patient education and obtain a medication history in Spanish. Students will gain a cultural awareness to provide culturally- appropriate care to Spanish- speaking patients. This course will be taught primarily in Spanish and supplemented with English. Students will be required to speak, listen and write in Spanish.

Course	Credits	Title & Director(s)	Description
681	1.5	<b>Community-Engaged Research</b> <i>Dr. Harrison &amp; Dr. Dyer</i>	This course will introduce students to basic concepts of community-engaged research, including framing a research question, hypothesis, methodology, data collection and analysis, and results and conclusions in the cultural context of the community. Students will be expected to write and develop a mini-proposal that encompasses these principles. Students will also gain experience in writing an abstract and developing a poster that describes the project that addresses a community-identified health problem. Through lectures, readings, group discussions, and participation in community engagement activities, students will acquire the basic skills necessary to develop, implement, and evaluate a community-engaged research proposal.
682	3	<b>Advanced Infectious Diseases</b> <i>Dr. Bresnehan</i>	This course expands upon the infectious diseases pharmacotherapy content in the Integrated Sequence, introducing students to more specialized topics such as multi-drug resistant organisms, infections in immunocompromised hosts, HIV/AIDS, and fungal, viral, and parasitic infections encountered in hospital and global settings. The role of the pharmacist as a provider of infectious diseases services will be emphasized in various settings.
683	3	<b>Substances of Abuse &amp; Addiction</b> <i>Dr. Mosier</i>	This course provides in-depth knowledge of the neuropharmacology of substances of abuse including CNS stimulants, depressants, hallucinogens, inhalants, and steroids. Basic pharmacokinetic and pharmacodynamic mechanisms related to the effects of the individual substances of abuse will be emphasized. Current theories of addiction and tolerance will be presented in addition to various treatments for dependence and detection methods, as well as social, legal, and ethical aspects of substance abuse.
686	1.5	<b>Pediatric Pharmacy</b> <i>Dr. Cramer</i>	This course will introduce students to the unique field of pediatric pharmacy. Students will gain an understanding of common pediatric disease states and the associated pharmaceutical treatments. The course will also focus on how developmental age affects the pharmacokinetics and pharmacodynamics of various medications.
688	1	<b>Advanced Diabetes Care</b> <i>Dr. Kavanaugh</i>	Through application of diabetes knowledge and skills with hands-on techniques, case-based discussions, and evidence-based practice, this elective course is designed to provide students with exposure to advanced diabetes care and management topics. While the emphasis is on ambulatory or community practice settings, these skills can be applied to practice site where diabetes is managed. Students will receive the American Pharmacist Association (APhA) Pharmacist & Patient-Centered Diabetes Care Certificate at the end of this course.

Course	Credits	Title & Director(s)	Description
691	1	<b>Commercial Tobacco &amp; Nicotine Intervention Skills</b>  <i>Drs. Letizia &amp; Miller</i>	<p>Recognizing that pharmacy and medical health care providers are uniquely positioned to address commercial tobacco/nicotine use and dependence within the communities that they serve, this elective course provides pharmacy and medical students with exposure to the individual and societal impact of commercial tobacco/nicotine use and dependence in order to better understand and ultimately be able to perform brief interventions and manage patients who seek to be commercial tobacco/nicotine- free. Students are introduced to evidenced-based approaches that can be used to promote abstinence from commercial tobacco/nicotine containing substances. Through the use of independent and didactic learning activities, as well as hands-on experiences in a mock ambulatory care setting, students gain the skills of working with patients to ask about commercial tobacco/nicotine use, advise in quitting, conduct a brief assessment, assist in committing to behavior change, and arrange a follow-up appointment as part of a comprehensive treatment plan.</p>

Course	Credits	Title & Director(s)	Description
692	1.5	<b>Population Health Management &amp; New Service Development</b>  <i>Dr. Hovis</i>	<p>Population health management is a patient-centered, integrated care delivery model based on aligned incentives and coordinated, collaborative processes that are built on evidence-based prevention and disease management protocols. The goal of population health management is to target specific healthcare interventions to patients who need it most, which is often completed by targeting evidence-based metrics. This course, designed for student pharmacists, will introduce the concept of population health management through the lens of new service development to address care gaps. Students will learn foundational skills related to new service development with the aim of providing value to healthcare system. Students will learn about the important steps involved in developing a new pharmacy service in any practice setting. These steps include scoping, creating, implementing, and assessing. Students will work to apply population health management and disease state information, by creating an actionable intervention. Each student will create supporting documents for their proposed intervention that may be able to be tested through pilot implementation at a clinic site. The majority of this course will be taught in a virtual, on-demand format. Three of the class sessions will occur live to allow for discussion and presentation of the cumulative project for the course. Students will complete one cumulative project that allows them to put their knowledge to practical use in developing a theoretical pharmacy service. Each student will complete their own project independently.</p> <p>The project will consist of three components:</p> <ol style="list-style-type: none"> <li>1) Project Overview Document</li> <li>2) Project Deliverable (either CPA or Protocol)</li> <li>3) Project Presentation</li> </ol>

Course	Credits	Title & Director(s)	Description
693	2	<b>Innovative Leadership</b> <i>Dr. Konkol</i>	This course is designed for students to build management and leadership capabilities. The class explores personal and organizational aspects of leadership and management examining theoretical perspectives and models for innovative leadership and pathway for innovation. In addition, the course examines key tools for effective management and leadership to manage risk, challenges, building consensus and collaboration. The course also guides students through a personal leadership development journey. The classroom will serve as an interactive learning environment. Students will learn management and leadership abilities from readings, lecture, group discussion, reflection, assessment, planning and application. The content of the course builds from research across business cases and readings to inform a solid perspective to enhance management, leadership, and innovation capabilities. This course includes activities and feedback for students to facilitate growth and development and is appropriate for students who want to become effective managers, leaders, and innovators cultivating the growing related abilities and knowledge.
694	2	<b>Disruptive Innovation</b> <i>Dean MacKinnon</i>	This course teaches students how to develop, design and create ideas. Students explore the entrepreneurial mindset, creativity and idea generation, and assessing entrepreneurial opportunities. This course focuses on creative and innovative solutions to both business problems and business opportunities.
699	0.5 - 3.0	<b>Independent Study</b> <i>Any Pharmacy Faculty Member</i>	Independent study is an educational activity such as project-level research or concentrated inquiry undertaken by a student under the direction or supervision of a faculty member. A student can develop an independent study course activity with a faculty member using the Independent Study Request form. The faculty member and department chair must approve the independent study request before the student will be enrolled in the course.