

Didactic Electives Offerings for McWhorter School of Pharmacy Students Fall 2022

The McWhorter School of Pharmacy Doctor of Pharmacy Practice-and-Team-Ready (PHAR) curriculum requires **one (1) didactic elective course** to be completed prior to beginning Advanced Pharmacy Practice Experiences (APPEs). Students can enroll into a didactic elective during P2 fall, P2 spring, and/or P3 fall semester. Students also are required to complete one (1) didactic elective in the P4 spring semester after completing their APPEs. All electives are 2-credit hours. Didactic electives are to be selected from the courses listed below, provided prerequisites are fulfilled. Course descriptions also are presented below. Courses taken prior to enrollment in the McWhorter School of Pharmacy cannot be counted toward elective requirements in the Doctor of Pharmacy curriculum.

Students enrolled in the McWhorter School of Pharmacy/Samford University joint-programs (MBA, MPH, Informatics, Health Law and Policy, Nutrition, Healthcare Administration) can count joint-degree program courses to meet their pharmacy didactic elective course requirements. However, these students can still enroll in pharmacy didactic elective courses if they desire. The school is collaborating with other Samford University College of Health Sciences (CHS) faculty to create additional interprofessional didactic electives. Once approved, these will be added to this list.

Students can complete more than one (1) didactic elective courses if they choose. Extra tuition will NOT be charged to complete extra didactic electives prior to beginning APPEs (but cannot exceed 21 credit hours in the semester).

PHAR ^a	Course Name	P2 Fall
465	Drug Discovery and Development	Tuesdays at 8am
474	Scientific Writing: The Art of Generating Precise, Concise Technical Documents	Tuesdays at 1pm
486	Introduction to Careers in Pharmacy Academia	Thursdays at 1pm
460	Research	TBA with facilitator

a = Each elective has a minimum number of students that need to be enrolled for the elective to be scheduled.

PHAR 465 – Drug Discovery and Development

This elective is designed to provide pharmacy students with more in-depth training and understanding of the process of drug discovery and development and about related careers in the pharmaceutical industry.

PHAR 474 – Scientific Writing: The Art of Generating Precise, Concise Technical Documents –

This elective course aims to teach the fundamentals of effective scientific writing and coach students through the process of producing a technical document. Instruction will focus primarily on the steps of writing and publishing scientific manuscripts but other documents such as FDA drug safety and enforcement reports will also be addressed. The course will be presented in two segments: Part 1 will instruct the students to write concisely and clearly, whereas Part 2 will focus on the preparation of an actual scientific manuscript. Students are expected to attend a weekly lecture and to complete short writing and editing exercises, including production of a scientific abstract. Students will eventually develop a manuscript of their choice and will meet periodically with the instructor for individual editing sessions.

PHAR 486 –Introduction to Careers in Pharmacy Academia

This elective orients students to terminology, teaching, assessment, and interviewing strategies related to faculty positions at schools/colleges of pharmacy. Professional communication and professional development will be highlighted throughout the course.

PHAR 460-01 – Research

This elective applies literature and laboratory techniques or other methods of scientific investigation to pharmaceutical problems. Students choose to study and investigate a synthetic route in the design of a drug or develop a quantitative assay procedure for a known chemical entity. **Prerequisite:** Professional GPA of at least 2.5.

PHAR 460-02, -03, -04, -05 – Research

This elective is designed to provide the student with directed research experience on specific topics in pharmaceutical sciences. These topics are generally focused on characterization and evaluation of new or existing therapeutic agents, bioanalytical methodology for drug measurement, novel platforms and routes of administration. Students will gain hands-on experiences with *in vitro* bioanalytical sample preparation and analysis techniques. **Prerequisite:** Professional GPA of at least 2.5.

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Below are didactic electives that are anticipated to be offered during the P2 Spring or P3 Fall semester.

COURSE DESCRIPTIONS

PHAR 452 – Independent Pharmacy Business Plan Development

Project-oriented elective that focuses on the fundamentals of owning an independent community practice. Participants will work in groups with existing independent pharmacy owners to write business plans and explored ownership concepts in a real world environment. Consideration is given to the pros and cons of choosing an existing practice vs. establishing a new practice.

PHAR 454 – Journal Club

This elective is designed for students to further enhance their skill at evaluating and critiquing randomized, controlled clinical trials. Selected trials (i.e., landmark and current) will be thoroughly assessed to identify strengths and limitations plus determine appropriate application into practice. **Prerequisite:** PHAR 402.

PHAR 456 – Managed Care Pharmacy

This elective explores the fundamental knowledge and skills needed in the delivery of pharmaceutical care in a managed health care environment, primarily serving ambulatory patients. Emphasis on drug benefit management from a fiscal and clinical perspective.

PHAR 458 – Pediatric Pharmacotherapy

This elective offers an overview of pediatric pharmacotherapy with a focus on treatment and therapeutic monitoring of common pediatric diseases. **Prerequisite:** Completion of all courses of the second year. A course fee (\$30) will be charged to students enrolled in this elective.

PHAR 462 – Current Topics in Toxicology

Primary instructors: Ann Slattery from The Regional Poison Control Center at the Children’s Hospital in Birmingham. This elective covers common biologic, chemical and drug poisonings. Learn signs and symptoms, mechanisms of action, and toxicokinetics of various toxicants. Highlights “state of the science” treatment modalities. Includes site visit to local poison control center.

PHAR 463 – Complementary and Alternative Medicine

This elective provides pharmacy students with more specific education regarding herbal/natural products and other practices of complementary and alternative medicine.

PHAR 466 – Mental Illness and Treatment in the Movies

This elective is designed to evaluate the description and treatment of mental illness as portrayed in the movies. The class will be divided into groups and each group will present one movie. The groups will focus on specific movie scenes that address the disease in terms of symptomatology, effects on the characters' lives, attitudes of friends/family, portrayal of health care workers, treatment, etc.

PHAR 473 – Advanced Topics in Extemporaneous Compounding

This elective explores advanced topics related to non-sterile and sterile extemporaneous compounding through a case-based approach. Topics include compounding techniques, regulations, and requirements; pharmacy business models also are included. Compounding laboratory sessions will simulate real-world scenarios in preparing and dispensing compounded products.

PHAR 478 – Women’s Health: A Focus on Select Gynecologic and Obstetric Disorders

This elective is designed to provide an overview of gynecologic and obstetric disorders. Emphasis will be placed on medication therapy used for these disorders (e.g., PCOS, infertility, fibroids, uterine & ovarian cancer, disorders during pregnancy [hypertension, diabetes, thromboembolism], labor & delivery/post-partum care & issues, lactation & breastfeeding).

PHAR 480 –Health-Systems Pharmacy Practice

This elective is designed to offer students the opportunity to learn the more specific health-system pharmacy practices. Through lectures, individual assignments, and discussion, students will be introduced to the variety of practices a pharmacist can have in a health-system utilizing practicing pharmacists.

PHAR 481 –Ambulatory Care

This elective is designed to introduce students to the expanding role of the ambulatory care pharmacist. Focus will be on designing and developing ambulatory care pharmacy services through developing a business plan, assessing and appropriately educating the ambulatory care patient, as well as educating health care professionals. Students will be introduced to various ambulatory care practice settings and will be given the opportunity to interact and collaborate with local ambulatory care pharmacists and/or residents. Throughout the course, students will be expected to participate in active learning coursework to further develop communication skills, problem solving, and team dynamics. The general format of the class will be open forum discussion with an emphasis on student participation. The class will consist of both lecture and case-based studies.

PHAR 482 –Cases in Oncology

This elective is designed to offer students the opportunity to study oncology pharmacy more in depth than covered in Pharmacotherapy class. Through individual presentations and group work, students will learn how to diagnose, treat, compound, administer, and monitor patients receiving hazardous medications and chemotherapy.

PHAR 484 – Infectious Diseases

This elective focuses on commonly encountered infectious diseases in both the inpatient and outpatient settings and is intended to provide students an opportunity to expand their knowledge of infectious diseases. This course includes information on mechanisms of antimicrobial resistance, microbiological testing, and commonly encountered infections. Small group debates are included to enhance the student's understanding of formulary decisions as well as enable the student to defend an antimicrobial selection. Emphasis will be placed on developing critical thinking skills and presentation skills which can be applied to pharmacy practice in both institutional and community settings.