

SCHOOL OF PHARMACY PROFESSIONAL ELECTIVES SPRING TERM 2234

DISCLAIMER: THIS LIST REPRESENTS THE COURSES WITHIN THE SCHOOL OF PHARMACY THAT ARE SCHEDULED IN THE SPRING 2023 SEMESTER. FOR APPROVED ELECTIVES OUTSIDE OF THE SCHOOL OF PHARMACY, PLEASE SEARCH FOR CLASS AVAILABILITY IN PEOPLESOFT - [HTTPS://PSMOBILE.PITT.EDU/APP/CATALOG/CLASSSEARCH](https://psmobile.pitt.edu/app/catalog/classsearch)

PHARM 1096 Addiction
CLASS NUMBER: 31619

Credits: 3
Coordinators: Drs. Reynolds/Tarter
Enrollment Cap: 30

Knowledge of substance use disorders and addiction, including its etiology, natural history, biomedical and social consequences, and tactics for prevention and treatment is integral to healthcare practice, especially considering that many drugs prescribed by physicians/dentists and many over-the-counter products have addictive properties. This course examines addiction resulting from medicines prescribed used to treat psychological and physical problems, self-directed use of medicines and complementary putative health-promoting compounds (e.g. nutrition supplements) and "recreational" substances. This elective course will inculcate an understanding of addiction accompanied with basic skills in screening, problem identification, and intervention pertinent to effective healthcare practice.

PHARM 1098 Pharma 101: Introduction Pharmaceutical Industry
CLASS NUMBER: 32262

Credits: 1
Coordinators: Dr. Smith
Enrollment Cap: 30

The course provides undergraduates and PharmD students with knowledge of pharmaceutical industry including functions and responsibilities of key divisions and their individual contributions and interactions in the drug design and development process.

PHARM 2001 Pharmaceutical Analysis
CLASS NUMBER: 15359

Credits: 4
Coordinator: Dr. Beumer
Enrollment Cap: 10

Current methods utilized in pharmaceutical research for the analysis and isolation of drugs and their metabolites. Theories of extraction, solvent partition and forms of chromatography (adsorption, partition, gas, liquid, counter current, ion exchange, gel-filtration and electrophoresis) are discussed.

PHARM 2003 Pharmacoepidemiology
CLASS NUMBER: 26933

Credits: 2
Coordinator: Dr. Suh
Enrollment Cap: 5

Introduction to the field of pharmacoepidemiology which uses epidemiologic methods to examine the benefits or risks of medications in the population. **Restrictions: Co-enrollment in third professional year pharmacy school courses and in good academic standing.**

PHARM 3074 Intro to Regulatory Aspects Drug Dev
CLASS NUMBER: 28167

Credits: 1
Coordinators: Drs. S. Patel/V. Sant
Enrollment Cap: 35

This course is designed to orient graduate students and students of PharmD program with foundational knowledge on regulatory aspects of drug development process including drug and biologic products. This course will introduce students with various regulatory agencies worldwide with emphasis on regulations by the US Food and Drug Administration (FDA). Through this introductory course, graduate students of School of Pharmacy will gain basic knowledge about regulatory pathways for drug and biologic products. This course will also expose the students to various career opportunities in regulatory affairs.

PHARM 3075 Topics in PGx and Precision Medicine**CLASS NUMBER:** 30073**Credits:** 1**Coordinator:** Dr. P. Empey**Enrollment Cap:** 5

This course is a journal club for students interested in the application of pharmacogenomics and precision medicine. The course will cover specific topics related to pharmacogenomics implementation, genotype-phenotype discovery, informatics, data science, and implementation science as they relate to pharmacogenomics and precision medicine. **Restrictions: Co-enrollment in the second or third professional year pharmacy school courses and in good academic standing.**

PHARM 3312 Communicating Data**CLASS NUMBER:****Credits:** 1**Coordinator:** Dr. R. Patel**Enrollment Cap:** 35

This course will offer a survey of methods for communicating the results of data analyses in healthcare. Best practices for different modes of presenting (oral and written) data will be introduced and applied. As data visualization has grown in importance, students will learn which figures and plots are most effective in specific cases. These methods will be reviewed, applied to various scenarios, and assessed in this course. Knowledge of data manipulation in some platform (STATA, SAS, Python, R, Tableau); descriptive statistics course and project data or familiarity with utilizing open data sets are preferred prior to course enrollment.

PHARM 5813 Acute Care Pharmacotherapy Simulation**CLASS NUMBER:** 15584**Credits:** 3**Coordinator:** Dr. Korenoski**Enrollment Cap:** 20 students

Course is designed to allow students to apply clinical knowledge, skills and attitudes gained in previous courses to care for patients with advanced cardiovascular diseases and those that are critically ill. Students will expand on the concepts gained throughout the pharmacotherapy of cardiovascular disease course. Course utilizes simulation based learning to enhance clinical decision-making processes. A major component of the course is self-study requiring an adult learning approach to education. The adult learning concept will require students to be responsible for and highly interactive in achieving the objectives of the course. The learning environment will foster clinical decision making and reinforce concepts learned throughout the school's curriculum. Also, it will provide an excellent source for objective assessment of student knowledge and performance. **Restricted to P3 students. Instructor's permission is required if not in the Pharmacotherapy Scholars ARCO. Please submit a one paragraph e-mail to Dr. Korenoski, johnsonas@upmc.edu, to explain your interest and why you want to enroll in the class.**

PHARM 5814 Global Health: Determinants & Application**CLASS NUMBER:** 15396**Credits:** 3**Coordinator:** Dr. Jonkman**Enrollment Cap:** 8 students

Course will introduce and discuss important topics in global health, focusing specifically on care of the underserved in a global context. Topics discussed will include health policy and economics, determinants of health, essential medicines, community-oriented primary care, structural violence, malnutrition and tropical medicine. In addition to readings and weekly discussion groups, students will have the opportunity to gain valuable practice-based skills by working in underserved clinics in Pittsburgh. Although not a prerequisite, this course complements pharmaceutical care to underserved populations offered in the fall term.

Restrictions: Co-enrollment in third professional year pharmacy school courses and in good academic standing.

PHARM 5826 Advanced Pediatric Pharmaceutical Care
CLASS NUMBER: 21494

Credits: 2
Coordinator: Dr. Howrie
Enrollment Cap: 7 students

The purpose of this course is to extend knowledge and skills in intensive and/or advanced pediatric specialties, building on previously developed fundamental knowledge of pediatric physiology, pathophysiology, pharmacology and therapeutics, so as to advance pharmaceutical care for infants and children with selected disorders. The course will focus on integration of science and practice to achieve outcomes that enhance patient care and quality of life.

PHARM 5830 Discovering Scientific Inquiry (DSI)
CLASS NUMBER: 21147

Credits: 2
Coordinators: Drs. Coons/Iasella
Enrollment Cap: 20 students

The primary purpose of the course is to adequately prepare learners to execute an outcomes research-based project during the P4 curriculum. As a required component of the pharmacotherapy scholars program, this course will enable P3 students in the spring semester to design a study, submit the required Institutional Review Board documents, and strengthen their data analysis skills. **Restrictions: Co-enrollment in third professional year pharmacy school courses and in good academic standing. Enrollment preference will be given to Pharmacotherapy Scholars.**

PHARM 5839 Comprehensive Diabetes Management
CLASS NUMBER: 29630

Credits: 2
Coordinator: Dr. Donihi
Enrollment Cap: None

This internet-based course provides students with a multidisciplinary foundation in the principles of diabetes management. Students will develop their knowledge and ability to assess, manage, educate, and monitor patients with diabetes. Pathophysiology, monitoring, complications, and treatment including pharmacotherapy, medical nutrition therapy, and exercise therapy will be explored. **Restrictions: Co-enrollment in third professional year pharmacy school courses and in good academic standing.**

PHARM 5840 Palliative Care Pharmacotherapy
CLASS NUMBERS: 31910 (Lecture) 31911 (Lecture + Practicum)

Credits: 2 (lecture only), 3 (clinical)
Coordinator: Dr. Lowry
Enrollment Cap: 12, (4) students

This semester long elective course is designed to provide the student with an advanced understanding of palliative and hospice care principles, the pharmacotherapeutic management of pain and non-pain symptoms occurring in patients with advanced illness, and the process of deprescribing. This elective will expand on the concepts gained throughout the first and the second professional years. The purpose of this course is to prepare the student to develop rational, patient-centered, and goal directed drug therapy and monitoring plans for patients with life-limiting illnesses throughout the life continuum. The goal of this elective experience is for the students to develop the attitudes, knowledge and skills necessary to participate in effective and compassionate palliative care. **Restrictions: Co-enrollment in third professional year pharmacy school courses and in good academic standing. Coordinator's permission is required for students interested in the clinical portion (3 credits). Enrollment preference will be given to Geriatrics & Palliative Care ARCO.**

PHARM 5842 Pharmacy in the World of Tomorrow
CLASS NUMBER: 32290

Credits: 1
Coordinator: Dr. Grieve
Enrollment Cap: 10

This class would be a means of educating students on what to expect in the coming years, the health impacts of climate change, and how they can be greater global citizens moving forward. The structure of the class would be split into two parts. The first half of the class would act as a kind of journal club to give the students the space and opportunity to learn about the socio-political and systemic impact of rising global temperature. The second half of the class will be focused more on discussing what can be done and how pharmacy could look in the future. Topics will range from climate apartheid, disaster preparedness, and the crumbling of infrastructure.

Independent/Directed Study Options:

PHARM 1097 Mentored Research

CLASS NUMBER: 32242

Time: As arranged with faculty

The course provides undergraduates and PharmD students the opportunity to participate in systematic, hypothesis-driven research bridging bench to bedside in pharmaceutical or pharmacy-focused research. Students are guided through the research process under direct mentorship from an expert in development of problem-solving and other skills in research. **Coordinator's permission is required.**

Credits: 1-3

Coordinator: Dr. Kerry Empey

Enrollment Cap: 20

PHARM 5851 – 5858 Special Topics 1 – 8

CLASS NUMBERS: TBD

Time: As arranged with faculty

Student has the opportunity to explore a pharmaceutical research or pharmaceutical care topic on an individual or small group basis with the oversight of a faculty member. Generally, the successful completion of a project is required. **Student must apply using the Special Topics Web App. More information can be found in the PharmD Handbook under Special Topics -**

<http://pages.pharmacy.pitt.edu/pharmdhandbook/special-topics-courses/>.

Credits: 1 - 3

Coordinator: Varies

Enrollment Cap: Varies