WesternU COP
2022-2023 Didactic Elective Course Summary

PHRM ELC1 Introduction to Clinical Research (1 Credit, Letter Grade)

Facilitator:	Dr. Patrick Chan
Eligibility:	P-1 & P-2
Term:	Fall
Time:	Thursdays 3:00-5:00pm (8 weeks)
Capacity:	5 - 40
Format:	Combination of didactic and active learning
Grading:	Letter Grade

Clinical research is defined as the study of a drug, biologic, or device in human subjects with the intent to discover potential beneficial effects and/or determine its safety and efficacy. This elective introduces students to clinical trials and basic clinical research principles for those interested in pursuing residency or a field of clinical research (fellowship, industry, FDA career). Throughout the elective course we will discuss principles of clinical research, experimental design, managing and monitoring clinical trials, and data management and analysis.

PHRM ELC4 Independent Research (1 Credit, CR/NCR) FALL & SPRING

Facilitators:	Individual Faculty Preceptors
Eligibility:	P1-P3
Prerequisite:	Consent from faculty preceptor
Term:	Fall & Spring
Time:	Depends on faculty preceptor
Capacity:	Unlimited
Format:	Research
Grading:	CR/NCR

This block introduces the student pharmacists to independent research experiences under the supervision of a faculty member. The research experience may vary from bench research (pharmaceutical sciences) to clinical translational research (pharmacy practice). Student pharmacists will be expected to participate in research activities at the rate of 3 hours per week per credit. 30 hours of research must be completed by the end of the semester to earn a grade for the elective course. Schedules for research will be determined by the student pharmacist in consultation with the faculty preceptor. Student pharmacists will only be allowed a maximum of 2 professional elective credits over two semesters (1 credit each). Any additional research elective course while eligible for course credit, will not be counted towards the overall elective degree requirement.

Please note that all faculty members may not be able to offer the research elective course. Thus, the student pharmacist must email the faculty member directly to enquire about any openings for the desired semester (see faculty research and specialty profiles http://www.westernu.edu/pharmacy/). If a position is available, the student pharmacist must choose the "independent research" elective course during semester course registration.

PHRM ELC6A Seminar in Professional Development (1 credit, CR/NCR)

Facilitator: Dr. Jason Wong
Eligibility: P1 - P3
Term: Fall
Time: Wednesdays 12-1pm
Capacity: 50 – 140
Format: Seminar by guest speakers, self-reflections
Grading: Cr/NCR

This seminar elective provides presentations related to careers, leadership, management, legal and regulatory issues and other topics related to professional and personal development. This seminar course will give 1 unit of credit for attending a minimum number of these presentations and writing a minimum number of reflections. Open to year 1 PharmD students and year 2 PharmD students that have not taken the course previously. Course is offered in both fall and spring terms. See registration notification for capacity, course dates/times.

PHRM ELC20 STRESS MANAGEMENT FOR STUDENT PHARMACISTS: MMY METHOD (MINDFULNESS, MEDITATION AND YOGA) (1 Credit, CR/NCR)

Facilitators: Dr. Anandi V. Law, B.Pharm, PhD, FAPhA, *Certified Yoga Instructor*
Eligibility: Fall P1, P2 & P3; Spring P1 & P2
Prerequisite: None
Term: Fall & Spring
Time: Friday 1:00-3:00PM and offline (other days 3:00-5:00PM possibility)
Capacity: minimum 5, maximum 15
Format: Combination of in-class and homework
Grading: CR/NCR

This elective is designed as an introductory to intermediate level course for the student pharmacist to learn basic techniques of Yogic breathing (Pranayama), postures (asanas), mindfulness and meditation towards relaxation and stress reduction. The benefits of the course are intended to be both short and long term, dependent on individual levels of practice.

PHRM ELC22 The Pharmacist & Patient Centered Diabetes Care Certificate Training Program (APhA) (2 Credit, Letter Grade)

Facilitator:	Dr. Hyma Gogineni
Eligibility:	P-2 & P-3 (Fall) P2 (Spring/Summer)
Term:	Fall, Spring & Summer
Time:	Saturdays 8:00-5:00pm (1 Weekend)
Capacity:	20-60
Format:	Self-Study Component - Pre-requisite before attending the live session Self-Study Assessment (two opportunities to pass with a score of 70% or higher) Pre-seminar patient cases Live seminar component – required to attend full 8-hours Post-seminar component – post-test, complete evaluations & claim credit Combination of didactic and active learning
Grading:	Letter Grade
Cost:	$130.00 to be paid by student for APhA certificate

The Pharmacist and Patient-Centered Diabetes Care is an APhA Certificate Training Program that many employers are requiring this certification program in both community and ambulatory care settings to advance the profession of pharmacy. This is an intensive training program designed for student pharmacists to equip with the knowledge, skills, and confidence needed to provide effective, evidence-based diabetes care. Five self-study modules provide comprehensive instruction in current diabetes concepts and standards of care. The live seminar incorporates case studies and hands-on skills focused on the situations most likely to be encountered in community and ambulatory care practice settings. Students will refine their skills on evaluating and adjusting drug therapy regimens for patients with type 1 and type 2 diabetes, counseling patients about lifestyle interventions, analyzing and interpreting self-monitoring of blood glucose results, and assessing the overall health status of patients to identify needed monitoring and interventions.

PHRM ELC27 Transgender Health (2 Credit, Letter Grade)

Facilitator:	Dr. Hyma Gogineni
Eligibility:	P2 & P3 (Fall); P2 (Spring)
Term:	Fall, Spring
Time:	Saturday 8 am - 5 pm (1 weekend)
Capacity:	2 - 60
Format:	Self-Study Component - Pre-requisite before attending the live session Self-Study Assessment (two opportunities to pass with a score of 70% or higher) Pre-seminar patient cases Live seminar component – required to attend full 8-hours Combination of didactic and active learning
Grading:	Letter Grade

This course will introduce student pharmacists to the terms, concepts and guidelines related to transgender health. In addition, student pharmacists' will gain insights into cross-sex hormonal therapy (CSHT) specific to transgender health and addressing primary care, preventive, and mental health perspectives of transgender patients. The live seminar incorporates active learning through interactive case studies and group discussions.

PHRM ELC28 Advanced Informatics (1 Credit, CR/NCR)

Facilitator: Dr. Don Roosan
Eligibility: P1 – P3(Fall) P1 – P2 (Spring/Summer)
Pre-requisites: None
Term: Fall, Spring
Time: TBD
Capacity: 6-12
Format: Self-Study Component - Prerequisite learning from papers and video sessions
Didactic
Team-Based Component
Student Presentations
Grading: CR/NCR

This elective will serve as a project-based course in various areas of how health informatics relates to the real world. Students will be partnered in teams to work on specific project as required at the time. Students will have the ability to work together to create presentations on assigned research topics and projects in regard to health technology and the impact on patient care. The elective will be a mixed approach with current papers and topics in informatics as well as project based. Student pharmacists will learn about advanced topics about various aspects of informatics. At the end of the course, a presentation of findings will be given by the student teams.

PHRM ELC30: Introduction to Pharmaceutical Research (1.0 credits, CR/NCR)

Facilitator: Dr. Jeffrey Wang
Eligibility: P1-3
Pre-requisites: None
Term: Fall
Time: Thursdays 3:00-5:00 pm (8 weeks)
Capacity: 5-20
Format: Zoom lectures and self-reflections
Grading: CR/NCR

Pharmaceutical research produces drug products for treating various human diseases. This elective introduces the student pharmacist to the interdisciplinary nature and practice of pharmaceutical research. Throughout the course the student pharmacist will learn the history, science, scope, process, intellectual property in pharmaceutical research, and the skills to critically evaluate pharmaceutical research publications. The emphasis will be placed on pharmaceutical innovation.

NEW ELECTIVES ADDED FOR 2022-2023

PHRM ELC33 Oncology Practicum

Facilitator: Dr. Doreen Pon
Eligibility: P2 & P3 (Fall), P2 (Spring)
Pre-requisites: P1
Term: Spring/Fall
Time: various Thursdays, 1600-1700, 10 meetings
Capacity: 6-12
Format: In-person and Zoom live lectures and discussions, pre-class readings, in-class activities
Grading: CR/NCR (1 unit)

Description:
The care of patients with cancer is complex, often involving multimodal therapies with high potential for toxicities. The pharmacist must be knowledgeable about cancer disease states and appropriate management of toxicities of cancer therapeutics to educate patients and optimize patient outcomes. This course will be led by a team of oncology pharmacist preceptors who will introduce student pharmacists to topics in oncology through interactive lectures, journal clubs and patient cases. By the end of the course, student pharmacists will be able to develop evidence-based pharmaceutical care plans and provide medication counseling for patients with cancer.

PHRM ELC34 Artificial intelligence in Pharmacy

Facilitator: Don Roosan
Eligibility: P1, P2 & P3
Pre-requisites: None
Term: Fall
Time: TBD
Capacity: 1-15
Format: Zoom/online video
Grading: CR/NCR (1 credit)

Description:
This elective is to introduce the application of artificial intelligence in healthcare and in pharmacy. The student pharmacist will learn about where artificial intelligence is already seen in already being applied in pharmacy and how it can evolve in the near future. There are online video modules that will help to understand different concepts. The in-class quizzes and writing assignments will further strengthen different learning outcomes in the block. After the block, student pharmacists will be able to understand how artificial intelligence is applied in pharmacy and how it can change the practice of pharmacy and other healthcare fields.

PHRM ELC36 Legislative Advocacy

Facilitator: Dr. Micah Hata
Eligibility: P1-P3
Pre-requisites: None
Term: Fall
Time: TBD
Capacity: 4-8
Format: Zoom/live lecture, interactive discussions
Grading: CR/NCR (1 unit)

This course focuses on teaching students basic knowledge of the legislative process and fundamental advocacy techniques and how they can actively participate in the legislative process. Students will learn about current legislation relevant to pharmacy and how they can influence lobbyists, legislators, and policy professionals. Through this course, students will become aware of local, state, and national healthcare issues that affect pharmacists and their patients. Students will also learn about the role of professional organizations in the legislative process and the policy development process for these organizations. Students will participate in advocacy events such as a mock house of delegates and student legislative day. As part of this course, students will also write a letter to their legislator and schedule a meeting with their legislator's staff to discuss pharmacy-related issues and legislation.

ELC 37 Happiness in Pharmacy School

Facilitator: Dr. Micah Hata
Eligibility: P1-P3
Pre-requisites: None
Term: Fall
Time: TBD
Capacity: 6-10
Format: Zoom/live lecture, online videos/podcasts, interactive discussions
Grading: CR/NCR (1 unit)

Pharmacy school could have a negative impact on a student's sense of well-being. As the year progresses, students may experience stress and start to feel burned out. This course challenges students to explore and engage in activities that can increase their own happiness and help maintain their sense of well-being in the midst of a busy pharmacy school year. Together, we will dive into what the research says about we think will make us happy versus what actually makes us happy. We will also see what data there is regarding whether or not we can improve our own happiness. Through this course, students will identify evidence-based strategies they can put into practice in order to build healthier habits. Students will experiment with these practices to see if it helps them prevent burnout during the school year and assess what impact this has on their own happiness.

PHRM ELC38 Introduction to Scientific Writing and Publication

Facilitator: Drs. Jeffrey Wang and Ying Huang
Eligibility: Fall P1, P2 & P3/ Spring P1 & P2
Pre-requisites: None
Term: Fall and Spring
Time: TBD
Capacity: 2-6
Format: Zoom/lecture/writing/discussion
Grading: CR/NCR (1 credit)

This elective is to introduce the basic elements in scientific writing and the publication process. Student pharmacists will learn how to evaluate a research article, a review article, and a book chapter. In addition, Student pharmacists will select a research topic of interest, collect relevant literature, and write a review article. Selection of an appropriate journal to publish the review article will also be discussed. By the end of the course, student pharmacists will have hands-on experience in writing a review article and be familiar with the process of journal selection and manuscript submission.

PHRM ELC39 HPLC Practicum: Method Develop and Validation

Facilitator: Dr. Jeffrey Wang
Eligibility: P1, P2 & P3
Pre-requisites: None
Term: Fall
Time: TBD
Capacity: 2-4
Format: Zoom/lecture/video/discussion/lab
Grading: CR/NCR (1 credit)

This elective is to introduce the basic concepts in pharmaceutical and biomedical analysis. Particularly, the student pharmacists will learn the theory and instrumentation of high-performance liquid chromatography (HPLC) and its application in pharmaceutical and biomedical analysis. In addition, Student pharmacists will select a drug or an experimental therapeutic, develop and validate according to FDA guidelines an analytical HPLC assay for the selected chemical entity in plasma, and write a lab report. By the end of the course, student pharmacists will have the knowledge and hands-on experience in developing HPLC method for drug analysis in biological samples.