## College of Pharmacy
### Spring 2019 Elective Schedule

<table>
<thead>
<tr>
<th>PHRM ELC3</th>
<th>Diabetes Advanced Elective – Online DM Educate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facilitator:</strong></td>
<td>Dr. David Pham</td>
</tr>
<tr>
<td><strong>Eligibility:</strong></td>
<td>P2 &amp; P3</td>
</tr>
<tr>
<td><strong>Term:</strong></td>
<td>Spring</td>
</tr>
<tr>
<td><strong>Format:</strong></td>
<td>Online modules, class meets first day and two other times for case-based discussions</td>
</tr>
<tr>
<td><strong>Course Start Date:</strong></td>
<td>See Course Syllabus</td>
</tr>
<tr>
<td><strong>Course End Date:</strong></td>
<td>See Course Syllabus</td>
</tr>
<tr>
<td><strong>Course Days/Times:</strong></td>
<td>See Course Syllabus</td>
</tr>
<tr>
<td><strong>Capacity:</strong></td>
<td>25</td>
</tr>
<tr>
<td><strong>Credit Hours:</strong></td>
<td>2.00</td>
</tr>
<tr>
<td><strong>Grading:</strong></td>
<td>Letter Grade</td>
</tr>
</tbody>
</table>

This is a self-paced online series of videos and post-quizzes after the videos that expand your knowledge in diabetes care. There are multiple topics that each take varying amount of time, but overall accounts to about 2 hours/week (30hrs overall) which can be done whenever throughout the course. Class time will be to discuss questions or concerns from the video and to apply the video modules to a case.

This comprehensive diabetes series includes drug therapy, but also history of diabetes, exercise and nutrition, how to manage inpatient diabetes, gestational diabetes, children with diabetes, physiological issues, and motivation interviewing. The course was created by the University of Pittsburgh ([https://www.dmecourse.pharmacy.pitt.edu/](https://www.dmecourse.pharmacy.pitt.edu/)), but the modules were created by Certified Diabetes Educators (CDEs) from all over the country.

<table>
<thead>
<tr>
<th>PHRM ELC4</th>
<th>Independent Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facilitator:</strong></td>
<td>Individual Faculty Preceptors</td>
</tr>
<tr>
<td><strong>Eligibility:</strong></td>
<td>P1, P2 &amp; P3</td>
</tr>
<tr>
<td><strong>Term:</strong></td>
<td>Fall</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong></td>
<td>Consent from faculty preceptor</td>
</tr>
<tr>
<td><strong>Format:</strong></td>
<td>Research</td>
</tr>
<tr>
<td><strong>Course Start Date:</strong></td>
<td>See Course Syllabus</td>
</tr>
<tr>
<td><strong>Course End Date:</strong></td>
<td>See Course Syllabus</td>
</tr>
<tr>
<td><strong>Course Days/Times:</strong></td>
<td>As scheduled with faculty preceptor</td>
</tr>
<tr>
<td><strong>Capacity:</strong></td>
<td>Unlimited</td>
</tr>
<tr>
<td><strong>Credit Hours:</strong></td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Grading:</strong></td>
<td>CR/NCR</td>
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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 two 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 not all faculty members may 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/](http://www.westernu.edu/pharmacy/)).
<table>
<thead>
<tr>
<th>PHRM ELC5</th>
<th>Vaccines: Science and Society</th>
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</thead>
<tbody>
<tr>
<td>Facilitator:</td>
<td>Dr. David Sanchez</td>
</tr>
<tr>
<td>Eligibility:</td>
<td>P1</td>
</tr>
<tr>
<td>Term:</td>
<td>Spring</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>PHRM 5111, PHRM 5401</td>
</tr>
<tr>
<td>Format:</td>
<td>Combination of Didactic and Active Learning</td>
</tr>
<tr>
<td>Course Start Date:</td>
<td>See Course Syllabus</td>
</tr>
<tr>
<td>Course End Date:</td>
<td>See Course Syllabus</td>
</tr>
<tr>
<td>Course Days/Times:</td>
<td>See Course Syllabus</td>
</tr>
<tr>
<td>Capacity:</td>
<td>25</td>
</tr>
<tr>
<td>Credit Hours:</td>
<td>1.00</td>
</tr>
<tr>
<td>Grading:</td>
<td>CR/NCR</td>
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</table>

The overall goal for this course is to allow for students to further appreciate the scientific and clinical basis of vaccination as well as the key aspects of society opinion that have recently been challenging vaccine usage. Overview of important vaccines and the scientific basis behind the efficacy and safety of these vaccines are introduced along with aspects of individual vaccines that are often discussed in society about safety issues. The class will provide didactic instruction and reading blended with discussions on key topics.

<table>
<thead>
<tr>
<th>PHRM ELC6B</th>
<th>Seminar in Professional Development</th>
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<tbody>
<tr>
<td>Facilitator:</td>
<td>Dr. Jason Wong</td>
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<tr>
<td>Eligibility:</td>
<td>P1 &amp; P2</td>
</tr>
<tr>
<td>Term:</td>
<td>Spring</td>
</tr>
<tr>
<td>Format:</td>
<td>Seminar by guest speakers, self-reflections</td>
</tr>
<tr>
<td>Course Start Date:</td>
<td>See Course Syllabus</td>
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<tr>
<td>Course End Date:</td>
<td>See Course Syllabus</td>
</tr>
<tr>
<td>Course Days/Times:</td>
<td>Wednesdays, 12:00 – 1:00 p.m.</td>
</tr>
<tr>
<td>Capacity:</td>
<td>140</td>
</tr>
<tr>
<td>Credit Hours:</td>
<td>1.00</td>
</tr>
<tr>
<td>Grading:</td>
<td>CR/NCR</td>
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</table>

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 one 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 ELC7 Leadership in Pharmacy (1 credit, CR/NCR)
Facilitator: Dr. Janice Hoffman and DR. Steven O’Barr
Eligibility: P2
Term: Spring
Format: Combination of Didactic, Online Work/Reading, and Seminar
Course Start Date: See Course Syllabus
Course End Date: See Course Syllabus
Course Days/Times: See Course Syllabus
Capacity: 10
Credit Hours: 1.00
Grading: CR/NCR

This is an exploratory course for students to find the leader within. There are on-line modules for reading, and self-assessments and projects for defining leadership. Discussion groups and guest speakers discuss leadership styles and roles in various settings. A second domain involves interaction with a leadership mentor. Lastly, students use reflections to define leadership and how they fit into leadership.

PHRM ELC9 Introduction to Decision Analyses in Formulary Management
Facilitator: Dr. Quang Le
Eligibility: P2
Term: Spring
Format: Combination of workshop, didactic, and active discussion
Course Start Date: See Course Syllabus
Course End Date: See Course Syllabus
Course Days/Times: Wednesdays, 3:00 – 5:00 p.m.
Capacity: 15
Credit Hours: 1.00
Grading: CR/NCR

Formulary management is an integrated patient care process which enables physicians, pharmacists and other health care professionals to work together to promote clinically sound, cost-effective medication therapy and positive therapeutic outcomes. Effective use of health care resources can minimize overall medical costs, improve patient access to more affordable care and provide an improved quality of life. In this elective course, students will learn about common decision-analysis tools used in formulary decision-making. The focus will be on cost-effectiveness and budget impact analyses. This class will include didactic learning, directed reading assignments, and classroom discussions.

PHRM ELC10 Chemistry of Cosmetics
Facilitator: Dr. Maria Lambros
Eligibility: P2
Term: Spring
Format: Combination of didactic and active learning
Course Start Date: See Course Syllabus
Course End Date: See Course Syllabus
Course Days/Times: See Course Syllabus
Capacity: 40
Credit Hours: 1.00
Grading: Letter Grade

This course will discuss the components and chemistry of cosmetics, such as skin and hair care products, sunscreens, perfumes. Furthermore, it will discuss product safety issues, legislation and product evaluation. This class involves directed reading assignments and discussions.
**PHRM ELC13** Pharmacy Residency Elective Preparation (PREP)  
**Facilitator:** Dr. Patrick Chan, Dr. Mark Nguyen, and Dr. Doreen Pon  
**Eligibility:** P2  
**Term:** Spring  
**Format:** In class lectures, active learning, coaching, and online activities  
**Course Start Date:** See Course Syllabus  
**Course End Date:** See Course Syllabus  
**Course Days/Times:** Thursdays, 3:00 – 5:00 p.m.  
**Capacity:** 30  
**Credit Hours:** 1.00  
**Grading:** CR/NCR

In this hands-on course, you will learn how to prepare for the pharmacy residency application process. We will guide you through researching residency programs, applying through PhORCAS, and preparing a *curriculum vitae* and letter of intent. You will also have opportunities to participate in clinical case questioning and mock interviews and with the course facilitators.

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**PHRM ELC15** Principles of Biomedical Ethics  
**Facilitator:** Dr. Bradley T. Andresen  
**Eligibility:** P2  
**Term:** Spring  
**Format:** Combination of didactic and TBL  
**Course Start Date:** See Course Syllabus  
**Course End Date:** See Course Syllabus  
**Course Days/Times:** Fridays from 2:00 – 4:00 p.m.  
**Capacity:** 13  
**Credit Hours:** 1.00  
**Grading:** Letter Grade

This course consists of three topics within modern biomedical ethics. First, the course will survey the various moral philosophies that are used in society as well as the biomedical enterprise. Second, the course will utilize a small group format to discuss medical scenarios to tease apart ethical approaches and the conflict between various ethical theories. Lastly, the course will continue in the small group format to discuss research ethics and use real cases to examine the role that ethics and ethical theories play in laboratory science. Students are also expected to explore their own ethical philosophy and articulate this philosophy in line with the traditional philosophies that will be discussed in class.
A recurring dilemma in the use of drugs is differentiating medical utility from potential for abuse and ability to cause harm. In the United States there are a number of drugs regulated as schedule 1 illicit substances that have demonstrated therapeutic potential in the treatment of both psychiatric and medical illness. This elective will explore the pharmacology, evidence base, legal status, and treatment models of potential therapeutic uses of illicit substances. The course will feature a combination of lecture, projects, assigned reading, and presentations. It will be delivered primarily via online content, although some in person classes will be required when guest speakers are invited.

Toxicology is the study of poisons. According to the alchemist Paracelsus, all substances are poisons and the dose differentiates a poison from a remedy. This course will focus on major toxic spills and human exposures that are of concern in today’s society. Case-based problems will be used to apply principles of toxicology and illustrate the major adverse health impacts of environmental toxins and pharmaceuticals.
PHRM ELC20  Stress Management for Student Pharmacists: MMY Method (Mindfulness, Meditation, and Yoga)

Facilitator: Dr. Anandi V. Law

Eligibility: P1

Term: Spring

Format: Combination of in-class and homework

Course Start Date: See Course Syllabus

Course End Date: See Course Syllabus

Course Days/Times: Fridays, 1:00 p.m. – 3:00 p.m. and offline

Capacity: 15

Credit Hours: 1.00

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 ELC21  IPE 5100 Facilitation

Facilitator: Dr. Eunice Chung

Eligibility: P2

Term: Spring

Format: Facilitation of IPE 5100 Discussion Sessions

Course Start Date: See Course Syllabus

Course End Date: See Course Syllabus

Course Days/Times: Wednesdays, 3:00 – 5:00 p.m.

Capacity: 10

Credit Hours: 1.00

Grading: CR/NCR

This elective is designed to provide opportunity in teaching and build leadership skills. Student pharmacists will facilitate IPE 5100, an interprofessional case discussion course involving first year health professional students from all 9 health professional programs at WesternU. Student pharmacists will be expected to prepare, facilitate, and evaluate the participants. The opportunity will allow students pharmacists to self-reflect on personal skills and interests in academia and leadership roles. Student pharmacist enrolled in this course will be required to facilitate 2 of the 3 IPE 5100 case series.
PHRM ELC22

The Pharmacist & Patient Centered Diabetes Care Certificate Training Program (APhA)

Facilitator: Dr. Josephine Aranda, Dr. Hyma Gogineni

Eligibility: P2

Term: Spring/Summer

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

Course Start Date: See Course Syllabus

Course End Date: See Course Syllabus

Course Days/Times: Saturday, 8:00 – 5:00 p.m.

Capacity: 60

Credit Hours: 2.00

Grading: Letter Grade

Additional Cost: $130.00 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 ELC24  Global Health Summer Rotation
Facilitator:  Dr. Sunil Prabhu, Global Advancement Committee
Eligibility:  P1 & P2 - Please note student pharmacists must enquire with the facilitator prior to registering for this elective.
Prerequisite:  An interest in learning about the profession of pharmacy in foreign countries
Term:  Summer
Format:  Classroom discussions and lecture, out of class assignments, student presentations
Course Start Date:  See Course Syllabus
Course End Date:  See Course Syllabus
Course Days/Times:  See Course Syllabus
Capacity:  2 (minimum) – 4 (maximum) per international destination
Credit Hours:  2.00
Grading:  CR/NCR

This elective course aims to provide a global health experience to student pharmacists interested in learning about the pharmacy profession in countries outside of the USA. The course is offered during summer months of the P1 and P2 years and depends on availability of the international sites at the time of application. The total duration of the course will be 4 weeks of which 1 week accounts for travel back and forth from the international destination and also for report writing. The remaining 3 weeks will focus on spending time at the campus of our affiliate host institutions and visits to hospital pharmacies and pharmaceutical industries or as planned by the host institution. Current memorandums of understanding exist with institutions in China, Japan, Korea and Thailand. While there will be no tuition fee for participating in this elective course (provided it is within the credit limits as designated by the College), there will be costs pertaining to visa, travel, lodging and food which will be the responsibility of the student. Student pharmacists interested in this elective course can request estimated costs for the trip from the facilitator. A waiver form will need to be signed prior to travel.

PHRM ELC25  Advanced Clinical Research Design
Facilitator:  Dr. David I. Min
Eligibility:  P-2
Term:  Spring
Format:  Combination of didactic and active learning
Course Start Date:  See Course Syllabus
Course End Date:  See Course Syllabus
Course Days/Times:  Thursdays, 3:00 – 5:00 p.m.
Capacity:  15
Credit Hours:  1.00
Grading:  CR/NCR

This course aims to have the students learn various issues associated with clinical research and experimental designs. This elective helps students to learn the practical aspect of clinical trials and how to develop the study objectives, the research protocol, IRB preparation, study design issues, data analysis, and preparation of abstracts, and publish the findings. This course will help those interested in pursuing research career, i.e., fellowship, industry, or academia. Throughout the elective course we will discuss principles of the study objectives, clinical research/ experimental design, protocol development, managing and monitoring clinical trials, data management and analysis, and regulatory issues with drugs, and the student will have the opportunity to develop his/her own study protocol.