Pharmacy (PHAR)

Courses

PHAR 200. Introduction to Pharmaceutical Sciences. 3 hours.
Introduces students to pharmaceutical sciences focusing on the process of drug discovery and development and different aspects of basic and applied sciences. Course Information:.

PHAR 201. Pharmaceutical Care in the US. 3 hours.
Examines the role of pharmacies/pharmacists in U.S. healthcare, the relationship between pharmacy and society, including challenges to pharmacy equity in rural and urban communities and the opioid crisis, and efforts to reduce healthcare inequities. Course Information: Extensive computer use required. Hybrid course that integrates online and face-to-face classroom activities. *UIC GE US Society course*.

PHAR 385. Remediation. 2-5 hours.
A remediation option for students who previously failed courses that are no longer taught in the PharmD curriculum. Course content will mirror content from the core course that the student failed. Course Information: May be repeated to a maximum of 15 hours.

PHAR 410. Integrated Physiology. 3 hours.
Reviews and integrates principles introduced in pre-requisite physiology, anatomy and biochemistry courses to human non-pathological and pathological situations. Active learning will promote problem-solving skills. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory-Discussion.

PHAR 411. Introduction Pharmacy Practice. 4 hours.
Introduction to the practice of pharmacy through a combination of lectures, on-campus introductory pharmacy practice experience (IPPE) simulations, and a one week off-site IPPE. Will cover communication skills and interprofessional interactions. Course Information: Prerequisite(s): Current Illinois Pharmacy Technician License and completed college background check and drug screen and immunization records on file with the college. Class Schedule Information: To be properly registered, students must enroll in one Lecture and one Laboratory-Discussion and one Clinical Practice.

PHAR 412. Introductory Pharmacy Practice (IPPE): Community. 2 hours.
Students will be provided an overview of pharmacy practice in a community setting. Students will complete workshops and an introductory pharmacy practice experience (IPPE), observing and developing the skills necessary for the community setting. Course Information: Prerequisite(s): PHAR 411 and PHAR 431 and current Illinois Pharmacy Technician License and must comply with annual college background check and urine drug screen and must have immunization records complete and on file with college and additional site-specific requirements.

PHAR 413. Introductory Pharmacy Practice Experience (IPPE): Hospital. 2 hours.
Students will be introduced to foundational hospital pharmacy practice through both simulated and real-world learning environments. Students will observe and begin to develop the skills necessary for the hospital setting. Course Information: Prerequisite(s): PHAR 411 and PHAR 431 and current Illinois Pharmacy Technician License and must comply with annual college background check and urine drug screen and must have immunization records complete and on file with college and additional site-specific requirements.

PHAR 414. Introductory Pharmacy Practice (IPPE): Introduction to Patient Care. 2 hours.
Students will be introduced to the core skills necessary for providing direct patient care. Emphasis is placed on developing communication skills for conveying pharmacotherapeutic recommendations both verbally and in writing. Course Information: Prerequisite(s): PHAR 412 and PHAR 413 and PHAR 501 and PHAR 502 and PHAR 503 and PHAR 504 and current Illinois pharmacy technician license and compliance with annual college background check and urine drug screen and immunization records complete and on file with college. Corequisite(s): Requires concurrent registration in PHAR 505 and PHAR 506. Class Schedule Information: To be properly registered, students must enroll in one Lecture, and one Laboratory-Discussion, and one Clinical Practice.

PHAR 422. Fundamentals of Drug Action. 4 hours.
Comprehensive course in chemical mechanisms of drug action. The major objective is for students to develop an understanding of the connection between the properties of chemical compounds and therapeutic action of drugs. Class Schedule Information: To be properly registered, students must enroll in one Lecture and one Discussion.

PHAR 423. Fundamentals of Drug Action II. 4 hours.
Covers more advanced topics of medicinal chemistry such as drug metabolism, energy metabolism, enzyme inhibitor drugs, signaling pathways as drug targets, discovery of natural product drugs and new frontiers in drug discovery. Course Information: Prerequisite(s): PHAR 422. Recommended background: Doctor of Pharmacy prerequisites including two years of undergraduateound chemistry with laboratory and at least 3-credit hour biochemistry.

PHAR 431. Pharmaceutics I - Pharmaceutics Principles, Drug Delivery Systems, and Calculations. 3 hours.
Content will initially focus on basic pharmaceutics principles applicable to all drug delivery systems. Solution products including sterile product solutions will also be addressed. Students will also learn and practice basic pharmacy calculations. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory-Discussion.

PHAR 432. Pharmaceutics II – Pharmaceutical Dosage Forms and Calculations. 2 hours.
Content will focus on basic pharmaceutics principles applicable to suspensions, emulsions, topicals, solids, and other dosage forms will be addressed. Pharmacy calculations relevant to dosage form preparation will also be taught. Prerequisite(s): PHAR 431.

PHAR 433. Pharmaceutics III – Complex Dosage Forms and Calculations. 2 hours.
Content will focus on basic pharmaceutics principles applicable to complex dosage forms (e.g., sterile products, extended release products, vaccines, etc.). Pharmacy calculations relevant to dosage form preparation will also be taught. Course Information: Prerequisite(s): PHAR 432.

PHAR 434. Pharmaceutics IV – Drug Delivery Systems Design and Calculations Competency. 2 hours.
Content will focus on dosage form design of sterile and non-sterile dosage forms; compounding; quality control; pharmacist's role in preparation, compounding, and dispensing of dosage forms; and pharmacy calculations, including a competency exam. Course Information: Prerequisite(s): PHAR 433.

PHAR 435. Pharmacokinetics. 3 hours.
Students will be introduced to basic principles of pharmacokinetics (e.g., absorption, distribution, biotransformation, excretion), factors influencing these parameters, and the use of common mathematical equations to calculate these parameters. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory-Discussion.

PHAR 438. Introduction to Drug Information. 1 hour.
Content will focus on omparing and contrasting primary, secondary, and tertiary resources, including their relative value and trustworthiness. Students will gain skills necessary to conduct systematic searches and extract information from appropriate sources.

PHAR 439. Pharmacoepidemiology and Biostatistical Reasoning. 1 hour.
The principles of biostatistics and epidemiology relevant to pharmacy practice and pharmacoepidemiology (e.g., probability, descriptive and inferential statistics, measures of association and causality, and measures of excess risk) will be reviewed.

PHAR 440. Evidence-Based Medicine. 2 hours.
Focuses on the evaluation of clinical research in the literature and its application to patient care decisions. Application and interpretation of statistical methods will be reviewed in the context of study designs. Course Information: Prerequisite(s): PHAR 438.Corequisites: Requires concurrent registration in PHAR 439. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory-Discussion.

PHAR 461. Pharmacy and the U.S. Healthcare System. 2 hours.
Introduction to the philosophy and mission of the pharmacy profession, the evolution of practice, and elements of the U.S. Healthcare System.

PHAR 462. Social and Behavioral Pharmacy. 2 hours.
A survey of topics in the social and behavioral sciences as applied to pharmacy. The course emphasizes the broader social and health systems-related issues that surround and affect patient care provided by pharmacists.

PHAR 463. Personal and Professional Development. 2 hours.
Imparts knowledge, skills, abilities, behaviors and attitudes necessary for personal and professional competence and development, reinforcing the concepts of self-awareness, leadership, innovation, entrepreneurship, and professionalism. Course Information: Prerequisite(s): PHAR 461.

PHAR 464. Patient Safety. 1 hour.
Reviews topics related to patient safety. Prevalence and risk factors for error in healthcare settings, systematic approaches to risk assessment and error investigation, and methods to improve health system safety will be covered.

PHAR 465. Pharmacy Learning, Advising, Mentoring, and Engagement for Students (PhLAMES) 1. 0 hours.
Supports and advances the longitudinal professional and character development of students utilizing network-based mentoring and co-curricular activities that complement the didactic and experiential coursework of the professional PharmD curriculum. Course Information: Satisfactory/Unsatisfactory grading only.

PHAR 466. Pharmacy Learning, Advising, Mentoring, and Engagement for Students (PhLAMES) 2. 0 hours.
Supports and advances the longitudinal professional and character development of students utilizing network-based mentoring and co-curricular activities that complement the didactic and experiential coursework of the professional PharmD curriculum. Course Information: Satisfactory/Unsatisfactory grading only.

PHAR 467. Pharmacy Learning, Advising, Mentoring, and Engagement for Students (PhLAMES) 3. 0 hours.
Supports and advances the longitudinal professional and character development of students utilizing network-based mentoring and co-curricular activities that complement the didactic and experiential coursework of the professional PharmD curriculum. Course Information: Satisfactory/Unsatisfactory grading only. Prerequisite(s): PHAR 465 and PHAR 466.

PHAR 468. Pharmacy Learning, Advising, Mentoring, and Engagement for Students (PhLAMES) 4. 0 hours.
Supports and advances the longitudinal professional and character development of students utilizing network-based mentoring and co-curricular activities that complement the didactic and experiential coursework of the professional PharmD curriculum. Course Information: Satisfactory/Unsatisfactory grading only. Prerequisite(s): PHAR 465 and PHAR 466.

PHAR 469. Pharmacy Learning, Advising, Mentoring, and Engagement for Students (PhLAMES) 5. 0 hours.
Supports and advances the longitudinal professional and character development of students utilizing network-based mentoring and co-curricular activities that complement the didactic and experiential coursework of the professional PharmD curriculum. Course Information: Satisfactory/Unsatisfactory grading only. Prerequisite(s): PHAR 467 and PHAR 468.

PHAR 470. Pharmacy Learning, Advising, Mentoring, and Engagement fo Students (PhLAMES) 6. 0 hours.
Supports and advances the longitudinal professional and character development of students utilizing network-based mentoring and co-curricular activities that complement the didactic and experiential coursework of the professional PharmD curriculum. Course Information: Satisfactory/Unsatisfactory grading only. Prerequisite(s): PHAR 467 and PHAR 468.

PHAR 471. Pharmacy Learning, Advising, Mentoring, and Engagement for Students (PhLAMES) 7. 0 hours.
Supports and advances the longitudinal professional and character development of students utilizing network-based mentoring and co-curricular activities that complement the didactic and experiential coursework of the professional PharmD curriculum. Course Information: Satisfactory/Unsatisfactory grading only. Prerequisite(s): PHAR 469 and PHAR 470.

PHAR 472. Pharmacy Learning, Advising, Mentoring, and Engagement for Students (PhLAMES) 8. 0 hours.
Supports and advances the longitudinal professional and character development of students utilizing network-based mentoring and co-curricular activities that complement the didactic and experiential coursework of the professional PharmD curriculum. Course Information: Satisfactory/Unsatisfactory grading only. Prerequisite(s): PHAR 469 and PHAR 470.

PHAR 501. Pathophysiology, Drug Action, and Therapeutics (PDAT) 1: Self Care. 3 hours.
An introductory therapeutics course for the P1 student that addresses self-care principles. Topics will include wellness, prevention, and disease states that are commonly managed with nonprescription medications. Course Information: Prerequisite(s): PHAR 410 and PHAR 422 and PHAR 435.

PHAR 502. Pathophysiology, Drug Action, and Therapeutics (PDAT) 2: GI/Endocrine. 3 hours.
Covers the pathophysiology, chemistry, pharmacology, and therapeutic use of medications for the treatment of endocrine and gastrointestinal disorders. Course Information: Prerequisite(s): PHAR 410 and PHAR 422 and PHAR 435.

PHAR 503. Pathophysiology, Drug Action, and Therapeutics (PDAT) 3: Renal, Electrolytes, and Nutrition. 3 hours.
Covers the pathophysiology, chemistry, pharmacology, and therapeutic use of medications for the treatment of renal and electrolyte disorders. Principles of enteral and parenteral nutrition in adult and pediatric patients are also covered. Course Information: Prerequisite(s): PHAR 410 and PHAR 422 and PHAR 423 and PHAR 435 and PHAR 501 and PHAR 502.

PHAR 504. Pathophysiology, Drug Action, and Therapeutics (PDAT) 4: Immunology/Respiratory. 4 hours.
Covers basic biology of the immune system and its functions, common disorders of the immune system, chemistry and pharmacology of drugs used to treat immune disorders, and the therapeutic interventions for those disorders. Course Information: Prerequisite(s): PHAR 410 and PHAR 422 and PHAR 423 and PHAR 435 and PHAR 501 and PHAR 502.

PHAR 505. Pathophysiology, Drug Action, and Therapeutics (PDAT) 5: Cardiovascular. 4 hours.
Covers the pathophysiology, chemistry, pharmacology, and therapeutic use of drugs used to treat common cardiovascular conditions. (e.g., thromboembolic disease,hypertension,dyslipidemia, vascular disease, heart failure, and dysrhythmias). Course Information: Prerequisite(s): PHAR 410 and PHAR 422 and PHAR 423 and PHAR 435.

PHAR 506. Pathophysiology, Drug Action, and Therapeutics (PDAT) 6: Infectious Diseases. 4 hours.
Students will be exposed to the pathophysiology of various infections and the chemistry, pharmacology, therapeutic utility, and pharmacokinetic principles of systemic antibiotics, antifungals, and antivirals used to treat them. Course Information: Prerequisite(s): PHAR 410 and PHAR 422 and PHAR 423 and PHAR 435 and PHAR 504.

PHAR 507. Pathophysiology, Drug Action, and Therapeutics (PDAT) 7: Neurology, Psychiatry, and Pain. 4 hours.
Covers the pathophysiology, chemistry, pharmacology, and therapeutic use of drugs used to treat various neurologic and psychiatric disorders. Other topics covered include pain management and substance abuse/addiction. Course Information: Prerequisite(s): PHAR 410 and PHAR 422 and PHAR 423 and PHAR 435 and PHAR 501 and PHAR 502; and PHAR 503 and PHAR 504 and PHAR 505 and PHAR 506.

PHAR 508. Pathophysiology, Drug Action, and Therapeutics (PDAT) 8: Special Topics. 3 hours.
Covers the pathophysiology, chemistry, pharmacology, and therapeutic use of drugs used to treat osteoarthritis, gout, disorders of the eye, and men's and women's health disorders as well as herbal and dietary supplements. Course Information: Prerequisite(s): PHAR 410 and PHAR 422 and PHAR 423 and PHAR 435 and PHAR 501 and PHAR 502; and PHAR 503 and PHAR 504 and PHAR 505 and PHAR 506.

PHAR 509. Pathophysiology, Drug Action, and Therapeutics (PDAT) 9: Hematology and Oncology. 3 hours.
Covers the principles of oncology; pathophysiology of various cancers and hematologic disorders; and the chemistry, pharmacology, and therapeutic use of medications used to treat oncologic and hematologic disorders. Course Information: Prerequisite(s): PHAR 410 and PHAR 422 and PHAR 423 and PHAR 435.

PHAR 510. Pathophysiology, Drug Action, and Therapeutics (PDAT) 10: Advanced Disease Management. 3 hours.
Challenges the students with complex multi-morbidity patient cases enabling them to apply pharmacologic, therapeutic, pharmacokinetic, and pharmacodynamics concepts learned in earlier course work. Course Information: Prerequisite(s): PHAR 440 and PHAR 501 and PHAR 502 and PHAR 503 and PHAR 504 and PHAR 505; and PHAR 506 and PHAR 507 and PHAR 508 and PHAR 520.

PHAR 515. Patient Care: Institutional/Hospital. 2 hours.
Students will further develop and apply clinical skills in the institutional/health system setting. Students will spend the majority of their time participating in direct patient care at an off-site institutional/hospital setting. Course Information: Prerequisite(s): PHAR 414 and PHAR 501 and PHAR 502 and PHAR 503 and PHAR 504 and PHAR 505; and PHAR 506 and current Illinois Pharmacy Technician License and comply with annual college background check and urine drug screen and Immunization records complete and on file with college and in addition comply with additional site-specific requirements.

PHAR 516. Patient Care: Ambulatory Care/Community. 2 hours.
Students will further develop and apply clinical skills in the ambulatory care/community care setting. Students will spend the majority of their time participating in direct patient care at on off-site ambulatory care/community care setting. Course Information: Prerequisite(s): PHAR 414 and PHAR 501 and PHAR 502 and PHAR 503 and PHAR 504 and PHAR 505; and PHAR 506 and current Illinois Pharmacy Technician License and annual college background check and urine drug screen and immunization records complete and on file with college and Additional site-specific requirements.

PHAR 520. Applied Pharmaceutics, Pharmacokinetics, and Pharmacogenomics. 3 hours.
Focuses on clinical application of basic concepts of pharmaceutics, pharmacokinetics, and pharmacogenomics taught earlier in the curriculum. Previous concepts will be reinforced through clinical applications. Course Information: Prerequisite(s): PHAR 434 and PHAR 435.

PHAR 565. Pharmacoeconomics and Payment. 2 hours.
Emphasizes the principles and applications of phamacoeconomics and various financial and payment models that impact decision-making and resource allocation at the level of the patient, health care provider/organization, and population.

PHAR 566. Management and Informatics. 2 hours.
Reviews the management process and the use of health informatics, resources, and decision-making by managers to achieve organizational goals.

PHAR 567. Pharmacy Law and Ethics. 3 hours.
An in-depth examination of federal and state laws and regulations in pharmacy practice and helps students apply laws and regulations to circumstances they may encounter in various practice settings.

PHAR 601. Advanced Pharmacy Practice Experience (APPE): Ambulatory Patient Care. 4 hours.
Advanced experiential course where students will further develop and apply skills related to ambulatory care. Students will spend six weeks in an ambulatory care setting for this Advanced Pharmacy Practice Experience (APPE). Course Information: Prerequisite(s): • Current Illinois Pharmacy Student Technician License • Completed college background check and drug screen • Completed assigned University LMS modules • Immunization records complete and on file with college • Additional site-specific requirements • P4 standing.

PHAR 602. Advanced Pharmacy Practice Experience (APPE): Community Pharmacy. 4 hours.
Advanced experiential course where students will further develop and apply skills in the community pharmacy practice setting. Students will spend six weeks in a community pharmacy for this Advanced Pharmacy Practice Experience (APPE). Course Information: Prerequisite(s): • Current Illinois Pharmacy Student Technician License • Completed college background check and drug screen • Completed assigned University LMS modules • Immunization records complete and on file with college • Additional site-specific requirements • P4 standing.

PHAR 603. Advanced Pharmacy Practice Experience (APPE): Hospital/Health-System. 4 hours.
Advanced experiential course where students will further develop and apply skills in the hospital/health-system setting. Students will spend six weeks in a hospital/health-system setting for this Advanced Pharmacy Practice Experience (APPE). Course Information: Prerequisite(s): • Current Illinois Pharmacy Student Technician License • Completed college background check and drug screen • Completed assigned University LMS modules • Immunization records complete and on file with college • Additional site-specific requirements • P4 standing.

PHAR 604. Advanced Pharmacy Practice Experience (APPE): Inpatient Medicine Patient Care. 4 hours.
Advanced experiential course where students will further develop and apply skills related to inpatient medicine care. Students will spend six weeks in an inpatient direct patient care environment for this Advanced Pharmacy Practice Experience (APPE). Course Information: Prerequisite(s): • Current Illinois Pharmacy Student Technician License • Completed college background check and drug screen • Completed assigned University LMS modules • Immunization records complete and on file with college • Additional site-specific requirements • P4 standing.