

School of Pharmacy Professional Electives

For the most current information regarding locations, times and instructors,
please review the UW Time Schedule.

Medicinal Chemistry

MEDCH 400 Fundamental Concepts in Medicinal Chemistry (3)

Principles of physical organic chemistry; chemical bonding, stereochemistry, acids/bases, and reaction mechanisms relevant to processes such as drug distribution, specificity, and metabolism. Successful completion of MEDCH 400 or a satisfactory score on the MEDCH qualifying exam is required to register for the MEDCH 562, 563, and 564 course series. Offered A. Class 1.

MEDCH 525 Alternative and Complementary Medicines (2)

Study of popular alternative and complementary medicines used in the United States. Focus on herbal products with some coverage of homeopathic and other non-nutritional dietary supplements. Demonstration of resources for current objective information on these controversial medicines. Credit/no credit only. Offered A. Class 1,2,3,4. Highly recommended in year 1 or 2.

MEDCH 535 Diagnostic Medicinal Chemistry (3)

Examination of clinical diagnostic tests with regard to the chemical or biochemical rationale of the testing method, interpretation of test results, and major factors influencing test values with special emphasis on the effects of medications. Clinical laboratory data from patients considered in light of these factors. Prerequisite: either MEDCH 571, BIOC 406 or equivalent, or permission of instructor. Offered W. Class 2,3,4. Highly recommended in year 2. (Class 1-prerequisites+ permission of instructor)

MEDCH 495 Special Studies in Medicinal Chemistry (*,max. 6)

Opportunity to expand the breadth and depth of understanding in specific areas. Credit/no credit only. Prerequisite: permission of instructor (instructor ID code needed to register for the course) Offered AWSpS. Class 1,2,3,4.

MEDCH 499 Independent Study/Research (*,max. 24)

Research problems in medicinal chemistry. Numerical or credit/no credit option. Prerequisite: cumulative GPA of 2.50 and permission of instructor (instructor ID code needed to register for the course) Offered AWSpS. Class 1,2,3,4.

Pharmaceutics

PCEUT 495 Special Studies in Pharmaceutics (*,max. 6)

Opportunity to expand the breadth and depth of understanding in specific areas. Credit/no credit only. Prerequisite: Permission of instructor (instructor ID code needed to register for the course) Offered AWSpS. Class 1,2,3,4.

PCEUT 499 Independent Study/Research (1-6, max. 12)

Research problems in drug disposition, drug targeting, and drug development. Numerical or credit/no credit option. Prerequisite: Cumulative GPA of 2.5 and permission of the instructor (instructor ID code needed to register for the course) Offered AWSpS. Class 1,2,3,4.

PCEUT 510 Pharmacokinetics of Drug Interactions (3)

Common pharmacokinetic mechanisms underlying the clinically important interactions between drugs. Interactions involving gastrointestinal absorption, serum drug protein binding, excretory and metabolic clearance processes are discussed. Prerequisite: PCEUT 531 or equivalent. Offered A. Class 3,4. Highly recommended in year 3.

PCEUT 586 Pharmaceutical Biotechnology (2)

Current topics in pharmaceuticals and biotechnology focusing on transforming small molecules, proteins, and genes into therapeutic products. Includes new drug therapies, drug design, pharmacogenomics, molecular modeling, production and stability considerations, and delivery systems of protein and gene therapeutics in relation to pharmacokinetic and therapeutic responses. Credit/no credit only. Offered W. Class 1,2,3,4.

PCEUT 598 Independent Research (*,max. 24)

Basic and clinical research problems in drug disposition and effect. Numerical or credit/no credit option. Prerequisite: 2.5 GPA and permission of instructor (instructor ID code needed to register for the course) Offered AWSpS. Class 1,2,3,4.

Pharmacy

PHARM 502 Neonatal Drug Therapy (3)

Clinical applications of drugs used with acute and chronically ill preterm and term neonates. Review of neonatal pharmacotherapeutics. Examination of selected therapeutic agents in relation to indications, efficacy, therapeutic and adverse effects, monitoring parameters, and dosing principles in the neonate. Offered Sp. Class 3,4. Register Period 2 and 3

PHARM 503 Intro to Sr. Care Practicum (2)

Under faculty supervision, provides clinical services for senior patients in various settings. Includes reviewing charts, interviewing patients, conferring with other health care providers and making recommendations on medication therapies to providers and patients. Prerequisites: successful completion of first five quarters of Pharm. D. curriculum, permission. Offered: Sp. Class 2,3,4.

PHARM 505 Foundations and Principles of Pharmacy Education (2)

Teaches principles of education that student educators and pharmacists can use in a multitude of educational environments. Focuses on pharmacy education in general as well as instructional methods and teaching principles. Offered: A. Class 2,3,4.

PHARM 506 Seminar in Pharmacy Education I (1) Discussion of scholarship and teaching in pharmacy education, focusing on the critical evaluation of educational research. Designed in a journal-club format, students participate in small group discussions and write an analysis paper. Prerequisite: PHARM 504 or permission of instructor. Credit/no credit only. Offered: W.

PHARM 507 Seminar in Pharmacy Education II (1) Students lead discussion about current issues in pharmacy and higher education as well as critically evaluate educational research. Weekly seminar includes small group discussions and journal-club methods. Prerequisite: PHARM 506. Class 2,3,4 or permission of instructor. Credit/no credit only. Offered: Sp.

PHARM 510 Contemporary Concepts in Clinical Nutrition Support (1)

Addresses current topics and concepts in clinical nutrition support. Topics include assessment and management of patients requiring specialized nutrition support, enteral nutrition, and parenteral nutrition. Prerequisite: biochemistry, anatomy and physiology, or permission of instructor.

Offered A. Class 3,4.

PHARM 513 Medical Devices for Home Health Care (3)

Study of medical devices commonly provided by pharmacists to their patients, including their selection and adaptation for specific patient needs. Lectures include display and demonstration of actual devices. Offered Sp. Class 1,2,3,4.

PHARM 516 Certificate Program in Biomedical Regulatory Affairs (3)

Comprehensive overview of the knowledge and skills necessary to be an effective regulatory affairs and compliance specialist overseeing the design, development, testing, and production of drugs, biotechnology-derived therapeutics, and medical devices. Credit/no credit only. Offered A. Class 1,2,3,4. Permission of instructor (need entry code).

PHARM 517 Certificate Program in Biomedical Regulatory Affairs (3)

Comprehensive overview of the knowledge and skills necessary to be an effective regulatory affairs and compliance specialist overseeing the design, development, testing, and production of drugs, biotechnology-derived therapeutics, and medical devices. Credit/no credit only. Offered W. Class 1,2,3,4. Permission of instructor (need entry code).

PHARM 518 Certificate Program in Biomedical Regulatory Affairs (3)

Comprehensive overview of the knowledge and skills necessary to be an effective regulatory affairs and compliance specialist overseeing the design, development, testing, and production of drugs, biotechnology-derived therapeutics, and medical devices. Credit/no credit only. Offered Sp. Class 1,2,3,4. Permission of instructor (need entry code).

PHARM 520 P-Introduction to Pharmacoeconomics and Outcomes Research (2) Provides an introduction to economic evaluation and outcomes research related to pharmaceuticals and other healthcare technologies. Covers the methods of cost-effectiveness analysis and quality of life evaluation, and their use in real-world decision-making. Offered: Sp. Class: 1,2,3,4

PHARM 521 Pharmacy Teaching Practicum (2) Allows students opportunity to apply learning about education in a mentored experiences. Students serve as assistant instructors in existing pharmacy courses or engage in other approved educational experiences. Prerequisite: PHARM 505. Offered: AW. Class 2,3,4 or permission of instructor.

PHARM 522 The Nature of Scientific Truth (2)

Drawing on the wisdom of scientists and philosophers, discussion of the nature and limitations of scientific truth, using examples from the practice of pharmacy whenever possible. Emphasizes reasoning errors that are common in science, particularly those that involve the application of scientific information to clinical practice. Credit/no credit only. Offered Sp. Class 1,2,3,4.

PHARM 523 Survey of Biomedical Regulatory Affairs (3)

Overview of the knowledge, terminology, and skills necessary to be an effective regulatory affairs or compliance specialist in the design, development, testing and production of drugs, biotechnology-derived therapeutics, and medical devices. A class project is required. Offered: W even years. Class 1,2,3,4.

PHARM 524 Institutional and Healthcare Systems Pharmacy Practice (2)

Presentation of topics regarding current contemporary institutions pharmacy practice. Discussion of new systems technology, home care programs, managed care, computer applications, budgeting, formulary systems, drug information services, intravenous admixture programs, quality assurance process, and patient oriented services. Offered W. Class 1,2,3,4.

PHARM 525 Advanced Compounding Skills (1)

Prepares the student to create unique, patient-specific pharmaceutical dosage forms used in contemporary pharmacy practice. Includes pre-readings and assignments, a didactic session and a laboratory session, and is offered over a weekend. Credit/no credit only. Prerequisite: PCEUT 331. Offered A. Class 2,3,4 Offered Sp. Class 1,2,3,4.

PHARM 526 Introductory Pharmacy Practicum (3)

Preparation and dispensing of prescriptions at Rubenstein Memorial Pharmacy in Hall Health Center or other selected community pharmacies. Designed for Pharm.D. students with little or no experience in pharmacy. Under direct supervision of clinical faculty and other licensed pharmacy preceptors. Please submit Pharm 305 paperwork located on the practicum web site (depts.washington.edu/pharmopp/) to Mary Neyhart. Instructor ID code required. Credit/no credit only. Offered AWSp. Class 1.

PHARM 529 Experiential Learning (1-6, max. 12)

Under faculty supervision, pharmacy students gain experience in providing pharmacy-related services, prior to the final year of the pharmacy program, Credit/no credit only. Prerequisite: satisfactory completion of the first quarter of pharmacy school Offered AWSp. Class 2,3,4.

PHARM 530 Pharmacy and Women's Health (2) Participants gain an overview of the specific up-to-date knowledge of gender-based medicine; an understanding of the implications of gender-based biology and the opportunity to evaluate new research that has implications for the prevention and management of diseases and conditions in women. Credit/no credit only. Offered Sp. Class 1,2,3,4. 1st year students have priority.

PHARM 531 Community Pharmacy-Based Immunization and Health Screening Programs (1)

Practical training in cholesterol, hypertension, bone density, and wellness assessment techniques, vaccine administration and management, and implementation of community-based public health programs. Following didactic and laboratory sessions, students conduct screening and administer vaccines a community locations. Offered following the first professional year. Credit/no credit only. Prerequisite: MEDCH 561. Offered A. Class 2,3,4.

PHARM 532 Methods in Pharmaceutical Policy Analysis (4)

Introduction to the tools used in and the framework and dominant contexts for pharmaceuticals policy development and analysis. Methods reviewed in a series of sessions presenting a specific method and case analyses involving pharmaceuticals development. Project and in-class presentation required. Prerequisite: Class 4 or permission of instructor.

PHARM 534 Economic Evaluation in Health and Medicine (3)

Methods and techniques for evaluating costs and cost-effectiveness of health, medical, and pharmaceutical interventions. Emphasis on economic evaluation, decision analysis, and modeling techniques for resource allocation and decision making. Applications to technology assessment, health policy, clinical practice, and resource allocation. Offered: jointly with HSERV 583. Offered A. Class 3,4 with permission of instructor(entry code needed).

PHARM 535 Evaluating Cost and Outcomes in Health and Medicine 2 (3)

Concepts and methods for evaluating cost and outcomes of health and medical interventions with a focus on cost-effectiveness analysis, pharmacoeconomics, health and quality of life assessment, resource allocation, and medical decision-making. Offered: jointly with HSERV 584 Winter Quarter. Class 3,4 with permission of instructor (entry code needed).

PHARM 538 P-Chemical Dependency Issues in Practice (3)

Emphasis on drug classes, pharmacologic management of abstinence and withdrawal, drug testing, drug use in pregnancy, treatment options and recovery, codependency and legal and ethical considerations. Credit/no credit only. Prerequisite: PHARM 537 Offered W. Class 2,3,4.

PHARM 539 Principles of Professional Practice Management (2)

Emphasizes the major issues and barriers of providing pharmaceutical care in institutional and community pharmacies. Topics include evaluating workflow and facility design, complying with legal and safety standards, managing drug distribution services, payment for pharmacist services, human resource management and marketing pharmaceutical care services. Credit/no credit only Offered A. Class 1,2,3,4.

PHARM 540 Seminar Series in Pharmacy Ownership and Entrepreneurship (2)

Discuss barriers to and benefits of independent pharmacy ownership. Describe the role, responsibilities and different management styles of the pharmacy owner. Evaluate differences with regard to purchasing an existing practice vs. starting your own. Explain legal consideration of ownership. Discuss how to create and the importance of a business plan. Offered A. Class 1,2,3,4.

PHARM 542 Managed Care Pharmacy: Principles and Practice (3)

Surveys the activities, tactics, and strategies used by managed care to deliver pharmacy services to their members. Includes: formulary development, clinical improvement programs, quality improvement measures, regulatory activities, contracting with pharmaceutical manufacturers, network management, financial issues, sales and market, and provider relations. Offered W. Class 2,3,4.

PHARM 544 Survey of Pharmacy Laws (1)

Discuss, present responses to assigned questions developed by faculty regarding laws governing pharmacy practice in the course of reviewing for the Multistate Pharmacy Jurisprudence Examination. Class meets for two consecutive Saturdays in March. E-mail and web-access required. Non-matriculated students by permission only. Credit /no credit only. Class 4 or UW Educational Outreach/Shared Access.

PHARM 545 Pharmacy Business Plan Development (1)

Develops a business plan for purchasing an independent pharmacy. CR/NC only. Offered WSp. Class 1,2.

PHARM 547 Gerontological Communication Skills Seminar (2)

Addresses special communication needs of the elderly, ranging from individualized patient counseling to patient advocacy through development and provision of pharmacy services. Communication techniques applicable to teaching, developing innovative services, supervising, motivating, conflict resolution, and interdisciplinary interactions are explored in lecture and laboratory. Credit/no credit only. Geriatric Certificate students have priority registration. Offered W. Class 2,3,4.

PHARM 548 Pharmaceutical Services for Long-Term Care (2)

Scope of pharmaceutical services for long-term care (LTC) and systems for services. Responsibilities of the pharmacist for distributive, administrative, and clinical pharmacy services for nursing homes and other long-term-care facilities. Economic considerations in provision of LTC pharmaceutical services, role of the consultant pharmacist for home-health-care organizations. Pharmaceutical services for independently living elderly. Offered W. Class 1,2,3,4
First year students should consult instructor prior to enrolling.

PHARM 549 Pharmacotherapeutics for Older Adults (3)

Clinical application of drug knowledge in the treatment of disease in older adults with multiple comorbidities. Application of age-related changes in pharmacokinetics and pharmacodynamics in the selection and monitoring of drug regimens of older adults. Emphasis on problem solving, using case examples. Prerequisite: PHARM 560, PHARM 561 or permission of instructor. Offered Sp. Class 3,4.

PHARM 550 Current Topics in Geriatric Pharmacotherapy (1) Review primary medical literature to discuss contemporary issues related to geriatric pharmacotherapy. Credit/no credit only. Prerequisite: PHARM 509 or permission of instructor. Offered A. Class 4. Offered W. Class 3,4.

PHARM 566 Applied Pharmacokinetics (2)

Pharmacokinetics of specific drugs. Influence of age, weight, sex, and disease states on patient-specific dosage regimens emphasized. Advanced kinetic concepts are discussed and put into applied context. Prerequisite: PCEUT 532. Offered Sp. Class 2,3,4 (Highly recommended in year 2 or 3).

PHARM 567 Cancer Pharmacotherapeutics (2)

Pharmacotherapy of cancer, covering supportive care (antibiotics, antiemetics, analgesics, nutrition) and the antineoplastic agents themselves. Specialists in each area serve as guest lecturers. Offered W. Class 3,4.

PHARM 568 Healthcare of Cancer Survivors (2)

Focuses on teaching health science students about cancer survivorship issues. Discusses the health concerns of those who have been cured of their initial malignancy but are still at risk of long-term effects of chemotherapy, radiation, and surgery. Prerequisite: PHARM 560. Offered jointly with NURS 533; odd years, Sp.

PHARM 569 Fluid and Electrolytes and Parenteral Nutrition (2)

Principles of fluid and electrolyte therapy, including saline, water, and acid-base balance, carbohydrate, protein, lipid, vitamin, and mineral requirements in parenteral nutrition. Nutritional assessment, complications of parenteral nutrition, stability and compatibility of intravenous solutions, modifications of parenteral nutrition in pediatrics and specific disease states are also covered. Offered Sp. Class 3,4.

PHARM 571 P Current Topics in Acute Care Pharmacotherapy (1) Increase understanding and stimulate discussion in the current topics related to acute care pharmacotherapy. Students have opportunities to review the management of patients in the acute care setting through current cases presented by the instructors. Emphasizes interactive learning. May be taken alone or concurrently with PHARM 503. Class 3,4.

PHARM 572 Clinical Applications of Drug Interactions (2)

Discussion of the clinical evaluation and management of drug-drug interactions using patient situations. Focus on patient- and drug-related factors that predispose patients to adverse drug interactions, as well as clinical management of patients found to be at risk. Credit/no credit only. Offered Sp. Class 3,4. Highly recommended in year 3.

PHARM 573 Laboratory and Functional Assessment: Geriatrics (1)

Application of laboratory data and functional assessment in planning care for older adults. Case study/seminar format in which students recommend appropriate tests, interpret test results, and gain experience in performing tests of function. Recommended: MEDCH 435 or permission of instructor. Geriatric Certificate students have priority registration. Offered Sp. Class 3,4.

PHARM 578 Advanced Elective Practicum (1-10, max. 20)

Faculty-supervised practicums either in areas of traditional practice or in innovative practice plans designed by faculty and student. Objectives, activities, schedules, and lengths are site- and preceptor- specific. Entry code required/ Credit/no credit only. Offered AWSp. Class 4.

PHARM 580 Case Studies in Pharmaceutical Care (3, max. 9)

Small groups of students work with an instructor to review cases illustrating various aspects of specific diseases: pathophysiology, clinical features, psychosocial factors, therapeutic interventions with emphasis on drug therapies, and community resources. Analytic reasoning, self-study skills, and knowledge are emphasized. Offered W. Class 2,3,4 or permission of instructor (entry code needed).

PHARM 581 Global Health Pharmacy: Medicines, Practice and Policy (2)

Introduces the critical role of pharmaceuticals in addressing the major diseases, such as HIV/AIDS, malaria, tuberculosis, affecting person in resource-limited settings. Multidisciplinary faculty address the wide range of relevant issues, including burden of disease, human resource capacity, regulation, drug safety/pharmacovigilance, drug distribution, pharmacoeconomics, financing, intellectual property, and drug trade policies. Offered W.

PHARM 582 P-Special Topics in Global Health Pharmacy and Medical Products (1-3, max. 6)

Provides in-depth instruction on selected special topics relating to the use, access to, and impact of pharmaceuticals, vaccines, and diagnostics/medical devices in global health. Credit/no credit only.

PHARM 584 Pharmacy and Patient Advocacy (1-2, max. 3)

Prepares PharmD students to become aware of and put into action their role as change agents in the advocacy of patients and the pharmacy profession.

PHARM 588 Diabetes Care (2)

The purpose of this course is to further develop the student's foundation in the principles of diabetes management and provide practice in application of diabetes care principles. The student will develop their knowledge and ability to assess, manage, educate and monitor patients with diabetes. The course includes internet-based self-study.

PHARM 591 Community Collaborations in Healthcare (2)

Faculty and students collaborate with representatives from the Salvation Army ARC and other community sites to improve health literacy and health outcomes of men and women

residents/patients in addiction recovery Offered A Class 1,2,3,4. Entry Code Required. Contact Micki Kedzieski at kedzm@u.washington.edu

PHARM 595 Special Studies in Pharmacy (1-6, max. 24)

Special studies of professional topics in pharmacy. An opportunity to expand the breadth and depth of understanding in specific pharmaceutical areas. Students may undertake independent study under the individual direction of a faculty member. Credit/no credit only. Prerequisite: permission of instructor (instructor ID code needed to register for the course) Offered AWSp. Class 1,2,3,4.

PHARM 596 Seminars in Pediatric Pharmacotherapy (2) Overview of drug disposition and medication utilization as it applies to the pediatric patient. Specific emphasis on neonatology and ambulatory pediatrics. Credit/no credit only. Prerequisite: third-year Pharm.D. student or permission of instructor.

PHARM 598 Case Conference: Geriatrics (1)

Students taking geriatric pharmacy clerkships in various clinical settings meet with faculty to present case studies of elderly patients requiring complex drug therapies. Credit/no credit only. Prerequisite: Geriatric Certificate program student or permission of instructor Offered AWSp Class 4.

PHARM 599 Independent Study/Research (1-6, max. 24)

Applied pharmaceutical research problems. Credit/no credit only. Prerequisite: permission of instructor (instructor ID code needed to register for the course) Offered AWSp. Class 1,2,3,4.

Note:

Courses are subject to change upon action of the Curriculum Committee and may not be offered every quarter. Please consult the Time Schedule for the most current information.