College of Pharmacy Electives

**Pharmacy 499-01** Special Problems variable 1 to 4 cr. Contact Pharmacotherapy Faculty for project list *(Offered Fall and Spring)* Independent study conducted under the jurisdiction of an approving faculty member; may include independent research studies in technical or specialized problems; selection and analysis of specified readings; development of a creative project; or field experiences.

**Pharmacy 499-04** HIV Prevention and Advocacy 1 cr. *(Offered Fall Only)* Preparing the next generation of pharmacists with the knowledge, skills and attitudes that improve health outcomes related to HIV and AIDS.

**Pharmacy 576** Survey of Organ Transplant and Immunosuppressive Drugs 1 cr. Course prerequisite: Admission to the Pharmacy Program. *(Offered Spring Only)* An overview of human transplantation by systems and the immunosuppressive regimes employed to prevent organ rejection.

**Pharmacy 577** Diseases Complications and Drug Therapy in Obstetrics 2 cr. Course prerequisite: admission to the pharmacy program and PharDSci 532. *(Offered online Fall and Spring)* Medical and pharmacological issues common in obstetrics.

**Pharmacy 578** Leadership and Professional Development 2 cr. *(Offered Fall Only)* Skills, traits, and values required by leaders seeking to influence change in the pharmacy profession and health care.

**Pharmacy 579** Diabetes Prevention 2 cr. Pharmacy 544 or by instructor permission. *(Offered Fall Only)* Preparation for educating patients in diabetes prevention and promoting health and wellness in the community.

**Pharmacy 580** Practical Politics and Pharmacy 1 cr. Course Prerequisite: admission to the pharmacy program. *(Offered Spring Only)* Study of government and legislation to better assist patients in navigating the political process.

**Pharmacy 588-01 & 03** Mental Health First Aid 2 cr. *(Offered Fall Only)* Exposure and discussion regarding the impact of mental health in the community and mental health first aid skill development.

**Pharmacy 588-02** HIV Prevention and Advocacy 1 cr. *(Offered Fall Only)* Preparing the next generation of pharmacists with the knowledge,
skills and attitudes that improve health outcomes related to HIV and AIDS.

**Pharmacy 588-02 Advanced Infectious Disease Elective** 2 cr. *(Offered Spring only)* Therapeutic use of anti-infective drugs in the treatment of selected Infectious Diseases.

**Pharmacy 588-04 Personal Finance for Pharmacists** 1 cr. *(Offered Spring only)* Personal finance course intended for student pharmacists.

**Pharmacy 588-05 Veterinary Pharmacy** 2 cr. *(Offered Fall and Spring Only)* Explore basic pathophysiology of diseases in small and large animals and current treatments likely to be dispensed by community pharmacists.

**Pharmacy 591 Advanced Elective in Critical Care** 2 cr. Course Prerequisite: PHARMACY 554. *(Offered in the PY3 year spring semester)* Explores in greater depth the pharmacology and pharmacotherapy encountered in the critical care setting.

**Pharmacy 594 Comprehensive Diabetes Management** 3 cr. *(Offered Online Fall and Spring)* Multidisciplinary foundation for future health professionals in the principles of diabetes management, using self-paced, modular and internet-based alternative format for delivery.

**Pharmacy 596 Entrepreneurship in Pharmacy** 1 cr. *(Offered Spring only)* Entrepreneurship and innovative pharmacy business plan development.

**Pharmacy 598 Elementary Science Education Practicum** 1 cr. Prerequisite admission to Pharmacy program. *(Offered Spring only)* Communication with children in classroom environment to stimulate future practicing pharmacists to participate in outreach activities as part of science education.

**Pharmacy 599-01 Special Projects** 2 cr. Contact Pharmacotherapy Faculty for project list *(Offered Fall and Spring)* Laboratory research, clinical research, or comprehensive review of selected subjects.

**PharDSci 599-01 Special Projects** 2 cr. Contact Pharmaceutical Sciences Faculty for project list *(Offered Fall and Spring)* Laboratory research, clinical research, or comprehensive review of selected subjects.

---

**Areas of interest**

The College of Pharmacy offers multiple electives that fit within an area of interest. Below are categories and courses that fit within that interest.

**Leadership**

HPA 515
Health Care Management

Pharmacy 578
Leadership and Professional Development

Pharmacy 580
Practical Politics and Pharmacy

Pharmacy 596
Entrepreneurship in Pharmacy

Pharmacy 598
Elementary Science Practicum

Pharmacy 499 & 599
Special Projects

PharDSci 499 & 599
Special Projects

**MBA Dual Degree Program**
Ambulatory/Community Pharmacy
Pharmacy 579
Diabetes Prevention
Pharmacy 578
Leadership and Professional Development
Pharmacy 580
Practical Politics and Pharmacy
Pharmacy 594
Comprehensive Diabetes Management
Pharmacy 596
Entrepreneurship in Pharmacy
Pharmacy 598
Elementary Science Education Practicum
Pharmacy 499 & 599
Special Projects
PharDSci 499 & 599
Special Projects

Management
Pharmacy 594
Comprehensive Diabetes Management
Pharmacy 596
Entrepreneurship in Pharmacy
Pharmacy 499 & 599
Special Project
PharDSci 499 & 599
Special Projects

Pharmaceutical Sciences Graduate Courses
Pharm.D. students can enroll in Pharmaceutical Sciences graduate courses as electives, with instructor permission. Check schedules.wsu.edu for offerings.

PharmSci 512 Topics in Pharmacology 3cr.
(Scheduling varies) Topics of current interest in pharmacology and closely related disciplines.

PharmSci 520 Foundation of Molecular Regulation 3 cr. (Typically offered in the fall)
Principles of molecular biology, genetics, and biochemistry used to develop therapeutic approaches to the treatment and prevention of human disease.

PharmSci 530 Foundations of Cellular Regulation 3 cr. (Typically offered in the spring)
Fundamentals of pharmacology and toxicology; signal transduction; cellular effects of diet and exercise; action and regulation of dietary supplements.

Acute Care Pharmacy
Pharmacy 576
Survey of Organ Transplant and Immunosuppressive Drugs
Pharmacy 577
Disease Complications and Drug Therapy in obstetrics
Pharmacy 578
Leadership and Professional Development
Pharmacy 579
Diabetes Prevention
Pharmacy 591
Advanced Elective in Critical Care
Pharmacy 499 & 599

Updated 06/21/17
PharmSci 540 Fundamentals of Chronopharmacology 3cr. (Typically offered every other spring) Role of the circadian clock in pharmacology as it relates to therapeutic efficacy with a special emphasis on anti-cancer drug treatment.

PharmSci 560 Molecular and Cellular Methods in Biomedical Sciences 3cr. (scheduling varies) Basic experimental methods and approaches in cell and molecular biology, with an emphasis on practical skills and their appropriate application.

PharmSci 565 Drug Delivery 3cr. (Typically offered in the fall) Comprehensive overview of drug delivery at the molecular, cellular, and organ level; concepts and approaches as applied to multiple diseases.

PharmSci 572 Fundamentals of Oncology 3 cr. (Offered every other spring). Thorough overview of cancer biology encompassing basic cellular and molecular mechanisms of carcinogenesis and tumor progression, treatment and prevention.

PharmSci 573 Principles of Pharmacokinetics and Pharmacodynamics 3cr. (Scheduling varies) Pharmacokinetic, pharmacodynamic, and toxicokinetic systems; mathematical model development utilizing common kinetic systems.

PharmSci 575 Receptor-ligand Interactions 3 cr. (Scheduling varies) Interactions of drugs with biological macromolecules constituting the physicochemical basis of drug action.

PharmSci 576 Biophysical Methods 3 cr. (Offered every other spring) Biophysical methods separating or detecting analytes based on their physical interactions with a support matrix or energy.

PharmSci 577 Responsible Conduct in Biomedical Research 3 cr. (Typically offered in the fall) Training in biomedical research ethics consistent with NIH requirements; introduction to literature searching and analysis, scientific writing, and oral presentations.

PharmSci 578 Applied Statistics 3 cr. (Typically offered in the fall) Research process; techniques for conducting health sciences research and evaluation; critique published health sciences research and collect, utilize, and evaluate primary and secondary data.

PharmSci 579 Advances in Pharmaceutical Sciences 3cr. (scheduling varies) Introduces entering graduate students to diverse concepts regarding advances in pharmaceutical sciences in the areas of drug discovery, targeted drug actions and reactions, molecular mechanisms of drug actions and nutraceuticals.

PharmSci 581 Stem Cell Biology, Therapeutics and Regenerative Medicine 3 cr. (Offered every other spring) Provides information on the latest cutting edge research in the areas of stem cell biology and tissue regeneration; covers stem cell therapeutics, gene transfer vectors and methods for isolating, characterizing, and generating stem cells.

Approved WSU Courses

Check schedules.wsu.edu for offerings. These courses require Registrar enrollment. *Email Linda
Sue Kildew if you are interested in enrolling in Global Campus courses.

**Engl 402** [W,M] Technical and Professional Writing 3 cr. Prereq: Engl 101, junior standing. **offered through Global Campus and requires approval.** Research writing: defining, proposing, reporting progress; presenting a final product; other professional writing needs.

**HPA 500** Introduction to the Health Care System 3 cr. Orientation to history and organization of the health care system.

**HPA 501** Health Care Policy and Politics 3 cr. History, methods, results and evaluation of health-care-related policy and politics.

**HPA 502** Law and Ethics of Health Management 3 cr. Private health law and ethics, including professional liability, relationship of physician and patient, malpractice reform, health institutions, and health access.

**HPA 509** Health Care Economics 3 cr. The economics of allocating, financing and delivering health care services. Cooperative: Open to UI degree-seeking students.

**HPA 510** Health Care Cost Accounting 3 cr. Basic cost-accounting concepts, principles, and applications in the health care setting.

**HPA 511** Health Care Finance 3 cr. Aspects of health care financial management fundamentals and managerial accounting for strategic financial management.

**HPA 515** Health Care Management 3 cr. Introduction to the knowledge, skills, and values associated with the practice of health management.

**HPA 519** Biostatistics and Epidemiology for the Health Sciences 3 cr. Application of quantitative methods to problems in the health sciences; statistical analysis software.

**HPA 520** Research and Evaluation Methods 3 cr. Basic research and evaluation methods for health care professionals.

**HPA 530** Health Care Information Systems 3 cr. Key attributes of health care information systems and their evolution in health care environment.

**HPA 570** Marketing for Health Care Organizations 1 cr. Basic marketing concepts, principles, and issues related to marketing public and private health care.

**HPA 590** Strategic Management and Marketing 3 cr. Key components and processes in strategic planning.

**MedS 600** Special Projects Variable cr. Independent study

**NEP 499** Health Equity and Community Organizing with Spokane Alliance. 1 cr. www.healthequitycircle.org

**Nurs 322** The Human Experience of Diversity and Health 2 cr. Prereq: requires instructor approval. Explorations of regional, national, and global expressions of health and illness and implications for health care professionals.

**Nurs 478** Plateau Tribes: Culture and Health 3 cr. requires instructor approval. History, culture, and health care needs of the Plateau Indian tribes; both classroom and practicum experience.
**Nurs 492** Essential Disaster Management For Nurses 3 cr. Prereq: requires instructor approval. Implications for disaster management across the health professions; mental health and ethical issues and concerns related to vulnerable populations.

**Nurs 498** Special Projects Topics vary

**SHS 201** American Sign Language I 4 cr. Fall only. Instruction and practical training in sign language for communication with persons who are deaf; deaf culture; beginning conversation skills.

**SHS 202** American Sign Language II 4 cr. Prereq: SHS 201 or concurrent enrollment; completion of SHS 201 recommended. (spring only) Sign language systems; vocabulary and skill development in signing and interpreting signs; intermediate conversation skills.

**PharmD/MBA Dual Degree Foundation Courses**

MBA business foundation courses are approved pharmacy electives for students enrolled in the PharmD/MBA dual degrees. Contact Danielle Teague or Mitch Swanger mitch.swanger@wsu.edu for more information.

**ACCTG 550** Introduction to Financial and Managerial Accounting 2-3 cr. **offered through Global Campus. Fundamentals of financial and managerial accounting; primarily for graduate students who wish to meet the MBA core requirements in accounting.

**BA 501** Foundations in Marketing 2-3 cr. **Offered through Global Campus. Foundation topics in marketing for MBA students.

**BA 502** Foundations in Operations Management 2-3 cr. **Offered through Global Campus. Foundation topics in operations management for MBA students.

**BA 503** Foundations in Business Law 2-3 cr. **Offered through Global Campus. Foundation topics in business law for MBA students.

**BA 504** Foundations in Finance 2-3 cr. **Offered through Global Campus. Foundation topics in finance for MBA students.

**BA 600** Introduction to Statistics (currently listed as an independent study). **Offered through Global Campus.

**ECON 555** Managerial Economics for Decision Making 3 cr. **Offered through Global Campus. Optimal economic decision making for business in a global environment. Not open to economics graduate students.

**Courses Available from Other Universities and Programs**

Please note, tuition for the following courses varies and is in addition to your WSU Pharmacy tuition you currently pay. Please check with each institution to verify the course listed is still being offered and/or prerequisites have not changed.

**University of Florida**

Students enroll in the online course via University of Florida. Cost is $650/credit hour. Students interested in enrolling for these courses should

Updated 06/21/17
contact the Program Registrar, Ms. Nicole Hudson at hudson@cop.ufl.edu. Then fill out the online registration form also at the web site: http://pharmacyelectives.pharmacy.ufl.edu/

University of Florida will bill the students for the tuition and assign them a username and password to access the course web site. University of Florida grants the academic credit and students transfer the academic credit to WSU via transcript

**PHA 6935** Pharmaceutical Crimes Practice and Procedure* 3 (online course, requires fee)

**PHA 6935** Veterinary Therapeutics* 2 (requires extra fee).

**PHA 6935** Herbal and Dietary Supplements* 3 (requires extra fee)

---

**Mercer University**

**PHA 505** Community Pharmacy Ownership 2 credits (requires extra fee) developed by Richard A. Jackson, Ph.D., a well-known expert in community pharmacy from Mercer University College of Pharmacy and Health Sciences. (jackson_r@mercer.edu) The course is offered for transfer credit and is available every semester beginning with the summer term of 2011. For more information on course objectives, tuition and registration instructions click here.

---

**Professional Compounding Centers of America**

Interested students are encouraged to visit PCCA’s student website to learn more about the course (including the course schedule) and register for the course: Please visit www.pccainstitute.com, point to “Courses” in the blue menu bar along the top of the page, then click on “Course Catalog” and “Course Schedule.” Students who have current PACK membership can sign in to their account by clicking on the “PACK” link on the homepage, then using their sign-in information. Once logged in, the student can enroll in the course of his/her choice. Students who have not completed the prerequisite Boot Camp course must contact the course instructor to determine if their prior experiences have prepared them for this advanced-level coursework. Please contact Bindhu Batra, Pharm.D., by email: bbatra@pccarx.com. Enroll in Pharmacy 599 and credit will be granted upon proof of successful completion of course.

**Veterinary Compounding** 2 (requires extra fee).

**PCCA Advanced Compounding** 2 (requires extra fee)

---

**Creighton**

Advance Ambulatory Cardiovascular Therapeutics 2 Credits. $965.00 per credit. Questions concerning the course should be directed to one of the course instructors: Dr. Daniel Hilleman (402-280-4288) (hilleman@creighton.edu), Dr. Katie Packard (402-280-2668) (kpackard@creighton.edu), or Dr. Mikayla Spangler (402-280-3861) (mikaylaspangler@creighton.edu). We will be able to guide you through the registration process and answer any other questions you may have about the course.

---

**Procedure for Approval of Additional Electives**

Students may petition the curriculum committee for approval of electives of their choice. The student should send an email to the curriculum committee chair providing the following information:

1. course prefix and number
2. Personal or career goals met by the course
3. semester the student would like to enroll
The curriculum committee chair will research course description, learning outcomes and availability to Pharm.D. students, and the committee will consider the course using the following criteria:
   1. Does the course fulfill curricular learning outcomes
   2. If the student would like to take the course for personal or career goals, is the course suitable for professional study

**Procedure for Approval of a Pharmacy 499 Continuing Education Courses**

Students interested in requesting approval to complete continuing education courses for elective credit must complete the following steps:
   1. Complete the Pharmacy 499 CE Elective Request form. (Requires faculty advisor signature)
   2. Submit form to the curriculum committee chair
The committee chair will research the CE course and the curriculum committee will consider the course using the following criteria:
   1. Does the course fulfill curricular learning outcomes
   2. If the student would like to take the course for personal or career goals, is the course suitable for professional study.