COLLEGE OF PHARMACY STUDENT HANDBOOK

HISTORY
The College of Pharmacy at Southwestern Oklahoma State University (SWOSU) was founded in 1939 and graduated its first class in 1941. The College of Pharmacy is accredited by the Accreditation Council for Pharmacy Education and is a member of the American Association of Colleges of Pharmacy. Many of the approximately 5000 alumni of the College of Pharmacy at SWOSU are leaders in their communities and very active in professional pharmacy organizations.

MISSION, VISION, AND VALUES

MISSION
The mission of the SWOSU College of Pharmacy is to graduate exceptional pharmacy practitioners who, as part of a healthcare team, shall provide quality care and service to patients and communities while exhibiting a lifelong commitment to personal and professional development.

VISION
The College of Pharmacy envisions the fulfillment of its mission by providing a dynamic educational environment in which students develop the personal, intellectual, and leadership skills and abilities necessary to succeed in the profession of pharmacy. The College of Pharmacy must maintain faculty committed to excellence in teaching, service, and research/scholarly activity who serve as role models for our students, communities, and the profession.

VALUES
• Fostering professionalism and integrity by cultivating a sense of personal and institutional responsibility and accountability.
• Exhibiting excellence and innovation in teaching, service, and research/scholarly activity.
• Expressing a collegial environment that promotes collaboration and mutual respect between administration, faculty, staff, preceptors, students, and alumni.
• Promoting diversity, cultural awareness, and the preservation of human dignity.

CAREER OPPORTUNITIES
The pharmacist is a specialist in the science of drugs and is the most accessible member of the health care team. The pharmacist is often the first health professional a consumer will talk to about health care questions, and the pharmacist is likely to be the last health care team member to consult with patients about their drug treatment. Today's pharmacist not only is responsible for the dispensing of prescriptions but also provides information and drug-related primary care.

Pharmacy demands that one be dependable and show good judgment. The responsibility the pharmacist has for the health and well being of people emphasizes the need for accurate decision making and high ethical standards. Above all, since pharmacy involves working with both patients and other health care professionals, a pharmacist must relate well to others.

The majority of pharmacists practice in a community setting. Community pharmacies range in size from the very small prescription shop to the large full-line drug store and can be owned by individuals or large corporations. Community pharmacy requires extensive use of business and management skills. In addition to being responsible for the dispensing of both prescription and nonprescription drugs, the community pharmacist also has the opportunity to provide advice and information on health matters to the public and provide consultation service to health care facilities as well as other health care providers.

As a member of the health care team, the health-system and/or hospital pharmacist is directly involved with patient care. The hospital pharmacist works with doctors and nurses to design a program of drug treatment most appropriate to each patient. In addition, the pharmacist is responsible for the drug distribution system of the hospital. Specialized areas, such as nuclear pharmacy, drug and poison information and intravenous therapy, have become a part of hospital pharmacy practice. The hospital pharmacist may also provide training to other staff members in the proper use of medications.

In addition to these two major areas, pharmacists work in industry, education, and all levels of government. Many serve as consultants to nursing homes, hospitals, and home health care agencies. Individuals with pharmacy degrees may pursue other health careers by entering medical, dental, or other professional educational programs. With their health and science education, pharmacists may specialize in the areas of technical writing, science reporting, and editing of professional magazines or journals. Pharmacists with legal training may become experts in pharmaceutical law.

With these multiple opportunities in an evolving health care environment, Pharmacy is a very rewarding profession.

LICENSURE
Legal requirements vary slightly from state to state, and students should familiarize themselves with the laws and regulations of the states in which they plan to seek licensure. In Oklahoma, a candidate for licensure must: (1) be of good moral character, (2) be no less than 21 years of age, (3) be a graduate of an accredited College of Pharmacy, (4) have experience in pharmacy practice in accordance with the regulations of the State Board of Pharmacy, and (5) have passed an examination as specified by the State Board of Pharmacy.

Additional information may be obtained through the State Board of Pharmacy of the state in which licensure is desired.

PROGRAM OF STUDY AND RESIDENCE
In accordance with the regulations of the Accreditation Council for Pharmacy Education, a minimum of six academic years of college work is required for completion of the curriculum leading to a Doctor of Pharmacy (Pharm.D.) degree. The College of Pharmacy curriculum at SWOSU is commonly referred to as a two-four program: two years of pre-pharmacy study plus four years of study in the professional Pharm.D. program.

The pre-pharmacy course work may be completed at SWOSU or at any accredited college or university offering pre-pharmacy courses, which are reasonably equivalent to those required pre-pharmacy courses at SWOSU.
ADMISSION TO THE UNIVERSITY

Before any student may be considered for admission to the College of Pharmacy, admission to SWOSU is required. Applications for admission to SWOSU, with all required forms, are submitted to the Office of the Registrar. However, all students considering a career in pharmacy are urged to visit the College of Pharmacy and to avail themselves of the counseling services of the Pharmacy Admissions Counselor.

ADMISSION TO PRE-PHARMACY STUDY

The pre-pharmacy program at SWOSU is open to all high school graduates and college transfer students who have not completed the specific pre-pharmacy curriculum and who qualify for and obtain admission to SWOSU. Regulations concerning admission to SWOSU are listed in the General Catalog of the institution or may be obtained from the Office of the Registrar.

ADMISSION TO THE PROFESSIONAL DOCTOR OF PHARMACY PROGRAM

Students may apply for admission into the professional Doctor of Pharmacy program for the Fall or Spring semesters. Applications for admission into the professional program for Fall semesters must be submitted by the previous February 1st. Applications for admission into the professional program for the Spring semester must be submitted by the previous September 1st. Selection for admission into the professional program is competitive. The minimum standards to be considered for admission are as follows:

1. Satisfactory completion of at least 60 semester hours of the pre-pharmacy curriculum;
2. Completion of all pre-pharmacy biology, chemistry, mathematics, and physics courses;
3. A minimum cumulative grade-point average of 2.50;
4. Submission of valid ACT or SAT scores.
5. Submission of Pharmacy College Admission Test (PCAT) scores from a PCAT test taken within 3 years of the date of application.

Applications must be submitted on standardized forms supplied by the College of Pharmacy. Application forms may be obtained from the Pharmacy Admissions Counselor and are not available online. Incomplete, late, or improperly prepared applications will not be processed. All admissions are subject to any conditions specified in the admission letter and other correspondence from the College of Pharmacy.

Background checks are required and will be conducted on each student prior to admission to the College of Pharmacy and at specific points throughout the student’s academic progression in the professional pharmacy curriculum as determined by COP regulations, practice requirements, and State laws and/or regulations (please see ‘Other College of Pharmacy Regulations’ for the full policy).

APPLICANT SELECTION

The faculty and administration of the College of Pharmacy establish the operating policies and methods of selection for the Admissions Committee, and the guidelines are followed carefully and diligently. Members of the Admissions Committee are appointed or reappointed annually.

The Admissions Committee must rely heavily on objective data, particularly science and mathematics grade average, overall grade average, ACT (American College Test) or SAT (Scholastic Aptitude Test) and PCAT (Pharmacy College Admission Test) scores. A preliminary selection of applicants will be made based on an initial evaluation of these criteria. Applicants selected by this initial process will be required to appear for a personal interview before a committee composed of faculty members and pharmacy students. The interview process provides an opportunity to assess important issues such as motivation, character, personal objectives, and communication skills. An appraisal from all aspects of the interview is included in the applicant’s file and is weighed, along with other factors, such as consistency of academic performance, by the Admissions Committee in making its final recommendation regarding admission to the Dean of the College of Pharmacy.

Selection for admission to the professional Pharm.D. program in the College of Pharmacy is competitive. Preference is given to qualified applicants who are residents of Oklahoma. Consideration is also given to other qualified permanent residents and citizens of the United States who complete their pre-pharmacy program at SWOSU. Only a very small number of other permanent residents and citizens of the United States who are not Oklahoma residents are offered admission, and these applicants typically are residents of states that border Oklahoma.

ADMISSION WITH ADVANCED STANDING FROM OTHER ACCREDITED COLLEGES OF PHARMACY

Applicants may be considered by the Admissions Committee for admission with advanced standing if they have completed work beyond the pre-pharmacy level in another institution accredited by the Accreditation Council for Pharmacy Education. The applicant must not be on academic or disciplinary probation or suspension, and such applicants must have passed each course accepted for transfer credit with a grade at least “C” or better. The completed work must be equivalent in content to that offered at SWOSU. In addition to official transcripts, applicants must submit their PCAT scores and a letter of good standing from the Dean of the College of Pharmacy last attended. A minimum of two semesters residency with at least thirty semester hours of credit is required for graduation of all students transferring to SWOSU from other Colleges of pharmacy, regardless of the amount of work previously completed.

ADVANCED STANDING EXAMINATIONS AND CLEP

Advanced Standing Examinations and College Level Examinations Program (CLEP) tests are given for some subjects included in the pre-pharmacy curriculum. Subject to certain conditions, a student may elect to take Advanced Standing or CLEP Examinations for the purpose of earning credit for courses. Information relative to the examinations may be obtained from the Pharmacy Admissions Counselor, and eligible students are encouraged to participate in the examination programs.

ADVICEMENT

Each student enrolled in pre-pharmacy or the professional pharmacy program is assigned a faculty advisor who can counsel and advise the student. The advisor will assist the student in developing, following, and updating as necessary the personal Degree Plan, and will provide reasonable assistance and guidance in the matter of curriculum selection. However, THE STUDENT IS THE INDIVIDUAL WITH FINAL RESPONSIBILITY FOR CORRECT AND APPROPRIATE ADHERENCE TO PREREQUISITE REQUIREMENTS. It is the student who will experience academic delay and loss of both time and course credit through matriculation in courses for which the student has not satisfied prerequisites.

THE PHARMACY CURRICULUM

The curriculum of the College of Pharmacy is established by the faculty. Since pharmacy is a dynamic profession, the faculty
reserves the right to make substitutions and necessary changes in course requirements without prior notice. Students, who fail to progress normally as the program is prescribed, are suspended, or take a leave of absence, may encounter program delays or additional semester credits due to curricular changes.

PRE-PROFESSIONAL CURRICULUM
The pre-pharmacy curriculum consists of 67 hours of prescribed course work. A minimum of 60 hours of this curriculum must be successfully completed prior to admission to the professional program (see section on “Admission to the Professional Doctor of Pharmacy Program”). Organic Chemistry II and Organic Chemistry II Lab and Microbiology must have been completed within seven years of the semester for which an applicant is seeking admission. All pre-professional requirements not completed prior to admission to the professional Pharm.D. program must be completed within one calendar year of the date of admission.

COLLEGE OF PHARMACY REGULATIONS
PHARMACY SCHOLARSHIP REQUIREMENTS:
1. All the following regulations are based on the fact that students in the College of Pharmacy are expected to enroll in a full load of course work, as defined by SWOSU standards.
2. Students must maintain a 2.00 grade-point average or above to remain in the College of Pharmacy. In computing the grade-point average, courses are counted each time they are undertaken, whether passed or failed. Summer term grades affect only the cumulative pharmacy grade-point average.
3. Grade points may not be satisfied through courses which are not requirements for the degree in Pharmacy at SWOSU.
4. The faculty of the College of Pharmacy considers any grade lower than “C” for any required or elective course in the professional program to be an unsatisfactory grade. Consequently, no course credit toward fulfilling the professional requirements for the degree in Pharmacy will be given for any course in which a grade lower than “C” is earned.
5. A student must enroll in a minimum of 12 semester hours in the Spring/Fall semesters, not including pass/fail courses such as the IPPEs.
6. A student who fails a course shall enroll in the course in the next semester in which the course is available. The student may not enroll in any required course in the professional program until the student has successfully completed the failed course.

PHARMACY PROBATION:
7. Any student whose grade-point average for any semester drops below 2.00 will be placed on pharmacy probation.
8. Any student who fails to complete 12 semester hours (pass/fail courses are not considered for these 12 hours) in the Fall or Spring semester will be placed on pharmacy probation.
9. Any student whose cumulative pharmacy grade-point average is less than 2.00 will be placed on pharmacy probation.
10. Students on pharmacy probation may not enroll in more than 15 semester hours without written approval of the Dean.
11. Students on pharmacy probation are advised to limit their extracurricular activities. Therefore, students shall not be allowed to work for the College of Pharmacy in any capacity, such as lab assistants, proctors, interviewers, tour guides, nor shall they be allowed to attend any non-mandatory College-sponsored off-campus activities requiring absence from class, or serve on the Dean's Council.

REMOVAL FROM PHARMACY PROBATION:
12. A student will be removed from pharmacy probation if, during the probationary semester, a grade-point average of 2.00 or better is earned while completing a full load of course work as defined by SWOSU standards, and the cumulative pharmacy grade-point average is 2.00 or better.

CONTINUED PHARMACY PROBATION:
13. Students who earn a grade-point of 2.00 or better for the probationary semester, but who do not have a cumulative pharmacy grade-point average of 2.00 or better, will be continued on probation. However, a pharmacy student may not continue in a probationary status for more than two (2) consecutive semesters.

PHARMACY SUSPENSION:
14. a. Pharmacy suspension is the dismissal of the student from the professional program. Pharmacy suspension is an action taken in the interest of the student when a lack of progress indicates little chance of success in earning a degree in pharmacy. Suspended students are urged to change their field of study to one for which they have greater ability.
b. A student will be suspended if the student has two consecutive full-time enrollment Fall and Spring semesters of the following:
   (1) less than a 2.00 semester grade-point average;
   (2) completion of less than 12 semester hours;
   (3) or any combination of (1) and (2).
c. Any student subject to pharmacy probation a second time, whose cumulative pharmacy grade-point is less than 2.00, will be suspended.
d. A student may not continue in a probationary status for more than two consecutive semesters. Failure to attain a cumulative pharmacy grade-point average of 2.00 or better by the end of this period will be cause for pharmacy suspension.
e. A student who has a total of four course failures in at least two different courses shall be suspended.
f. A student who has three failures in a single course shall be suspended.
g. A student who has two IPPE and/or APPE failures shall be suspended.
h. Withdrawal from a course by Friday of the seventh full week of classes (i.e., early withdrawal) during the Fall or Spring semester shall not count as an official enrollment in that course and shall not be considered the equivalent of a course failure for purposes of 14.e., 14.f., and 14.g., above. Students shall be limited to one early withdrawal without penalty per course. Thereafter, any other early withdrawals from that course shall count as an official enrollment and shall be considered the equivalent of a course failure for purposes of 14.e., 14.f., and 14.g., above.
i. Withdrawal from a course after Friday of the seventh full week of classes during the Fall or Spring semester shall count as an official enrollment in that course and shall be considered the equivalent of a course failure for purposes of 14.e., 14.f., and 14.g., above.
OTHER COLLEGE OF PHARMACY REGULATIONS:

16. A student must have attained a cumulative pharmacy grade-point average of 2.00 or above and completed all prerequisites prior to entry into the required professional practice academic year. In addition, a pharmacy cumulative grade-point average of 2.00 must be earned to fulfill requirements for the Pharm.D. degree in Pharmacy.

17. Transfer credit from another institution will not be allowed for any required professional course work a student attempted, but failed to complete satisfactorily, while enrolled in the SWOSU College of Pharmacy.

18. Pharmacy admission is restricted to those persons who meet high standards of character, morality and conduct. The faculty of the College of Pharmacy reserves the right to place on non-academic probation or suspend from the College of Pharmacy any students whose attitude, actions or conduct, on or off campus, could discredit themselves, the College of Pharmacy, SWOSU, or the profession of pharmacy.

19. All students in the professional program must follow the Guidelines for Academic Integrity of the College of Pharmacy. Pharmacy students are also subject to all rules and regulations of SWOSU.

20. The College of Pharmacy does not recognize any academic forgiveness or academic reprieve granted in the computation of pre-pharmacy or pharmacy grade-point averages.

21. Nationwide background checks are conducted for students who are conditionally admitted into the College of Pharmacy (COP) professional program; and at specific points throughout the student’s academic progression in the professional pharmacy curriculum as determined by COP regulations, practice requirements, and State laws and/or regulations. If the background check indicates that a student has (1) been convicted, pled guilty or nolo contendere or otherwise ordered to complete a period of probation or supervision for any felony of this state, any other state, or the United States, OR (2) been convicted, pled guilty or nolo contendere or otherwise ordered to complete a period of probation or supervision for any felony of this state, any other state, or the United States, OR (3) such charges pending, the student will have until the beginning of the admission semester or rotation semester to resolve the issue. If the issue is not resolved by that deadline, the student will not be admitted to the program or allowed to continue in the program at that time. The student who is not allowed to continue in the rotational semester MAY, in the sole discretion of the Dean of the College of Pharmacy, be granted a leave of absence for one semester to address and resolve the issue. The student who is not admitted will need to resolve the issue and apply for a subsequent admission semester.

Resolution of the issue could involve: (1) providing proof that the information was in error and the background check company subsequently removes the flag; (2) that the incident was expunged from court records and the student provides documentation of such; or (3) having further legal action provided to clear up the pending issue. If the student is able to resolve the issue before the admission or rotational semester begins, they will be allowed to proceed without further question. All costs associated with resolution of these issues is the responsibility of the student.

The College of Pharmacy will not allow the student with such a record as described above to proceed with the program because no pharmacy facility shall employ any person with such a record without obtaining a waiver from the Director of the Oklahoma Bureau of Narcotics and Dangerous Drugs (OBN) for every pharmacy facility that the student would utilize to complete their experiential requirements of the degree. An OBN waiver can result in increased insurance costs for the pharmacy facility and present a long-term, negative stigma for the pharmacy facility since it will always be on file with OBN.

Obtaining experiential sites is already a challenging task without requesting special circumstances that could be detrimental to the pharmacy facility. Therefore, the COP will not require or request experiential sites to secure an OBN waiver for any student rotations.

SPECIAL NOTES ON THE PROFESSIONAL PHARM.D. PROGRAM

1. The successful completion of the professional Pharm.D. program curriculum in the College of Pharmacy as well as the practice of pharmacy requires that the accumulation of scientific knowledge is accompanied by the simultaneous acquisition of skills and professional attitudes and behavior. Therefore, all didactic, laboratory, and pharmacy practice course requirements of the curriculum in the College of Pharmacy are applicable to all students and cannot be waived.

2. Only students who are currently enrolled in the College of Pharmacy may attend the professional Pharm.D. program classes in the College of Pharmacy without permission from the Dean of the College of Pharmacy.

3. Students enrolled in any experiential components of the professional Pharm.D. program must adhere to any specific policies, procedures and/or requirements of the assigned pharmacy practice site. The Introductory Pharmacy Practice Experience (IPPE) and Advanced Pharmacy Practice Experience (APPE) courses are conducted in off-campus
teaching facilities affiliated with the College of Pharmacy. Any added costs (i.e., required liability and health insurance, practice site requirements, supplies, housing, food, transportation, etc.) incurred through this dislocation must be borne by the student. Enrollment in these courses is limited by the availability of facilities and faculty. Therefore, students will be assigned to these courses based on the number of students that can be accommodated. Problems associated with the College of Pharmacy Regulations that affect the student may result in a delay in enrollment in these courses.

4. The IPPE courses are graded as Pass or Fail and do not affect the GPA calculations in any area (e.g., probation, suspension). The IPPE courses cannot be used for full-time course load or Pharm.D. program residency requirements for any semester.

5. Professional Pharm.D. program students who have complaints regarding the standards or policies and procedures of the Accreditation Council for Pharmacy Education (http://www.acpe-accredit.org/) must submit written documentation to the Associate Dean. If the student and Associate Dean cannot resolve the complaint, the complaint will be referred to the College of Pharmacy Policy Committee for review. The College of Pharmacy Policy Committee will make its recommendation to the Dean and the Dean of the College of Pharmacy will communicate the recommendation to the student.

6. Professional Electives are to be selected through consultation with the advisor and must be taken as part of the professional Pharm.D. program.

7. All students in the Pharm.D. program must be certified as pharmacy interns by the Oklahoma State Board of Pharmacy.

8. All students in the professional Pharm.D. program must complete all required documentation, which includes background checks, immunizations and vaccine series, drug screens and the SWOSU Health Record, in the prescribed time periods.

9. The cost of attendance for the professional Pharm.D. program includes the specific tuition and other costs for the professional Pharm.D. program as well as all SWOSU cost requirements.

FINANCIAL AID INFORMATION

Financial assistance may be available from or through SWOSU in the forms of part-time employment, scholarships, grants, and loans. Since it is important for entering students to determine that they are capable of doing satisfactory college work, they are encouraged to provide sufficient funds for their first year without employment.

Financial aid programs are coordinated by the Director of Student Financial Services, and inquiries should be directed to that office.

LOANS

Loans from non-federal and non-SWOSU administered funds may be available to students who have been admitted to the College of Pharmacy. Additional information and applications can be obtained from the Associate Dean. These loans include:

BURROUGHS - WELLCOME FOUNDATION EMERGENCY LOAN FUND: This fund was created by Burroughs-Wellcome Foundation through selected pharmacists who designated a College of Pharmacy to receive the funds.

IPPE ROTATION GRANT FUND: Provides assistance for students during their IPPE summer rotations.
STUDENT PROFESSIONAL ORGANIZATIONS

AMERICAN ASSOCIATION OF PHARMACEUTICAL SCIENTIST
The SWOSU-AAPS Student Chapter was founded in January 2013. The focus of this organization is to promote a learning environment that is geared towards research and development in the area of pharmaceutical sciences. The chapter will provide a unique platform to increase student awareness of career opportunities in the field of pharmaceutical sciences and a forum for networking and mentoring among students and faculty.

AMERICAN PHARMACISTS ASSOCIATION – ACADEMY OF STUDENT PHARMACISTS
APhA-ASP is devoted to the professional and ethical advancement of pharmacy students. The Academy was organized to aid and support the objectives of the American Pharmacists Association; to teach students the affairs of the Association and the profession; to provide a forum for student opinion on pertinent Association activities and policies; and to strengthen the program that converts student members to active members of the Association upon graduation so they will continue to participate in programs for the advancement of the profession of pharmacy. Membership is open to any professional or pre-professional pharmacy student.

DEAN’S COUNCIL OF STUDENTS
The Dean’s Council of Students provides an avenue of communication from the COP administration to the student body and vice versa. The smooth and orderly operation of a university not only depends upon the quality and commitment of its administration and students as individuals; it also depends upon the lines of communication between these individuals. The Council membership comes from pharmacy student organizations and class representatives.

FELLOWSHIP OF CHRISTIAN PHARMACISTS
Fellowship of Christian Pharmacists was organized to unite pharmacy students of SWOSU who are interested in growing closer to Christ as well as each other. The organization expresses the importance of pharmacy as well as the importance of Christianity and other things of life.

KAPPA EPSILON
Kappa Epsilon is a national professional fraternity for women in pharmacy. The Alpha Beta chapter at SWOSU was founded on January 28, 1960. KE’s purposes and goals both locally and nationally are to unite women students in pharmacy, cooperate with faculty, to stimulate in its members desire for high scholarship, and to provide a bond of lasting interest, loyalty, and friendship.

KAPPA PSI
Kappa Psi, founded in 1879, is the oldest and largest professional pharmaceutical fraternity in the nation. The Delta Beta chapter of SWOSU promotes pharmacy excellence in its members and in the community.

NATIONAL COMMUNITY PHARMACISTS ASSOCIATION
The National Community Pharmacists Association (NCPA) is an organization devoted to promoting the opportunities and responsibilities of independent community pharmacists. The SWOSU student chapter was founded in the spring of 1995. It is open to any student interested in the area of independent community pharmacy practice.

OKLAHOMA SOCIETY OF HEALTH-SYSTEM PHARMACISTS
The Oklahoma Society of Health-System Pharmacists is an organization that promotes careers in the health-system arena of today’s health-care society. The SWOSU student chapter of OSHP was established in the fall of 1998 with the mission to make students aware of pharmacy practice and career information in health-systems.

PHI DELTA CHI
In 1883, at Ann Arbor, Michigan, a group of 11 young men founded Phi Delta Chi Fraternity. Throughout the years, Phi Delta Chi (PDC) members have contributed positively to their colleges and to the pharmacy profession. PDC provides involvement in both professional and social activities; encourages development of leadership abilities; teaches that every member of the group has value; and promotes a spirit of Brotherhood.

PHI LAMBDA SIGMA
The Alpha Psi chapter of Phi Lambda Sigma (PLS) is a leadership organization in which you must be selected to become a member. The purpose of PLS is to encourage, recognize, and promote leadership within the College of Pharmacy, as well as within the profession as a whole. The members are dedicated to the advancement of the profession of pharmacy and are of high moral character and scholastic achievement.

RHO CHI SOCIETY
The Beta Upsilon chapter of the Rho Chi Society has the fundamental objective of the stimulation and recognition of academic excellence. The organization strives for the advancement of the profession of pharmacy. Membership is limited to one who ranks in the highest 20% of their class and has obtained a scholastic average of at least 3.00. Students are eligible for election after having completed six semesters of scholastic work applicable toward the PharmD degree.
# Doctor of Pharmacy (Pharm.D.)
## College of Pharmacy
### PRE-PROFESSIONAL (CODE 300)
#### Suggested Course Sequence

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
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<tbody>
<tr>
<td>1001 Orientation</td>
<td>3013 Organic Chemistry I</td>
</tr>
<tr>
<td>1113 English Composition I</td>
<td>3111 Organic Chemistry I Lab</td>
</tr>
<tr>
<td>1213 English Composition II</td>
<td>4113 Organic Chemistry II</td>
</tr>
<tr>
<td>1203 General Chemistry I</td>
<td>4021 Organic Chemistry II Lab</td>
</tr>
<tr>
<td>1252 General Chemistry I Lab</td>
<td>1063 General Physics</td>
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<td>1303 General Chemistry II</td>
<td>3704 Human Anatomy</td>
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<td>1352 General Chemistry II Lab</td>
<td>4355 Microbiology</td>
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<td>2823 Applied Calculus</td>
<td>2831 Applied Calculus</td>
</tr>
<tr>
<td>1054 Principles of Biology</td>
<td>1033 World History</td>
</tr>
<tr>
<td>1003 General Psychology</td>
<td>1003 World Cultural Geog</td>
</tr>
<tr>
<td>1103 American Government and Politics</td>
<td>2263 Introduction to Macroeconomics</td>
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<tr>
<td>1043 Am Hist to 1877 or 1053 Am Hist Since 1877</td>
<td>1313 Intro to Public Speaking</td>
</tr>
<tr>
<td>1022 Computers and Information Access</td>
<td>*Humanities and Fine Arts</td>
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* Must be selected from Art Survey, Intro to Literature, Intro to Music I, Intro to Philosophy, or approved by the Dean of the College of Pharmacy (General Education Program).

### PROFESSIONAL (CODE 450)
#### Suggested Course Sequence

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>SECOND YEAR</th>
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<tbody>
<tr>
<td>FIRST SEMESTER</td>
<td>SECOND SEMESTER</td>
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<tr>
<td>3001 Intro. to Pharmacy</td>
<td>3123 Pharmaceutics II</td>
</tr>
<tr>
<td>3012 Pharmacy Calculations</td>
<td>3321 Pharm. Care Lab II</td>
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<tr>
<td>3023 Pharmaceutics I</td>
<td>3405 Fundamentals Drug Action</td>
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<tr>
<td>3311 Pharm. Care Lab I</td>
<td>3823 Health &amp; Biostatistics</td>
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<tr>
<td>3614 Physiology</td>
<td>4213 Immunology</td>
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<tr>
<td>3813 Community Pharmacy</td>
<td>4512 Medicinal Chem. I</td>
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<tr>
<td>4124 Biochemistry</td>
<td>4612 Pathophysiology I</td>
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<tr>
<th>THIRD YEAR</th>
<th>FOURTH YEAR</th>
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<tr>
<td>FIRST SEMESTER</td>
<td>SECOND SEMESTER</td>
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<tr>
<td>4223 IPPE-Institutional</td>
<td>5234 Prin. of Pharmacotherapy</td>
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<tr>
<td>5054 Nonpres. Prod. Therap</td>
<td>5361 Pharm. Care Lab VI</td>
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<td>5204 Concepts of Pharmcothy</td>
<td>5753 Toxicology</td>
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<tr>
<td>5301 Clin Pharmacokinetics</td>
<td>5822 Health Issues III</td>
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<td>5351 Pharm. Care Lab V</td>
<td>5823 Pharm. Administration</td>
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<td>5812 Health Issues II</td>
<td>5844 Jurisprudence</td>
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<td>5853 Pharm. Mgmt &amp; Mrktng</td>
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<th>FIRST SEMESTER</th>
<th>SECOND SEMESTER</th>
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<tbody>
<tr>
<td>4213 IPPE-Community</td>
<td>4323 Found. In Pharm. Prac</td>
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<tr>
<td>4142 Health-Systems Pharmacy</td>
<td>4341 Pharm. Care Lab IV</td>
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<tr>
<td>4302 Drug Information</td>
<td>4522 Medicinal Chem.II</td>
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<tr>
<td>4331 Pharm. Care Lab III</td>
<td>4622 Pathophysiology II</td>
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<tr>
<td>4332 Basic Pharmacokinetics</td>
<td>4644 Pharmacology II</td>
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<tr>
<td>4512 Medicinal Chem. I</td>
<td>4712 Health Issues I</td>
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<td>4612 Pathophysiology I</td>
<td>Professional Elective</td>
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<td>4634 Pharmacology I</td>
<td><strong>Total</strong></td>
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### REGULATIONS PERTAINING TO GRADUATION

Students in the School of Pharmacy must complete the Pre-Professional and Professional curriculums. This includes 30 hours in residence.

Minimum hours for graduation ............................................ 207
Minimum hours in liberal arts & sciences ............................ 55
Minimum Grade Point Average to enter the professional program ............................................ 2.50
Minimum Grade Point Average in major ............................ 2.00
COLLEGE OF PHARMACY

PHARM 3001 INTRODUCTION TO PHARMACY
One hour lecture. Required in the first professional semester, orients entering students for the College of Pharmacy and initiates concepts of professionalism and professional responsibility. Prerequisite: Admission to the College of Pharmacy

PHARM 3012 PHARMACY CALCULATIONS
Two hours lecture. Calculations applicable to the practice of pharmacy including metric and common systems of measurement, dosages, specific gravity, expressions of concentration, pharmaceutical formulas, and determination of patient parameters. Prerequisite: Admission to the College of Pharmacy

PHARM 3023 PHARMACEUTICS I
Three hours lecture. A study of the applications of physical chemical and biopharmaceutical principles in pharmacy and pharmaceutical sciences, especially in designing various stable pharmaceutical dosage forms. Discussions involving pertinent mathematical concepts, development issues, processes, regulatory issues and compendial methods of evaluation of commonly administered dosage forms are included. Prerequisite: PHARM 3012, PHARM 3023.

PHARM 3213 INTRODUCTORY PHARMACY PRACTICE EXPERIENCE – COMMUNITY
Full-time, three-week practicum conducted in a community pharmacy; provides introductory experiences in contemporary pharmacy practice including: dispensing, prescription processing systems, management, and patient counseling. Prerequisite: PHARM 3311, PHARM 3813.

PHARM 3311 PHARMACEUTICAL CARE LABORATORY I
Introduction to the prescription, dispensing processes, patient counseling, and pharmaceutical compounding. Prerequisite: Admission to the College of Pharmacy. Prerequisite or concurrent enrollment: PHARM 3012, PHARM 3023, PHARM 3813.

PHARM 3321 PHARMACEUTICAL CARE LABORATORY II
Students develop the ability to fill prescriptions rapidly and accurately. Students are presented with numerous written and phoned prescriptions during each lab session, many of which contain intentional errors. Students develop methods to correct prescription errors through appropriate physician communications. Students practice computerized prescription filling and develop patient counseling skills. Students refine their skills in pharmaceutical compounding. Prerequisite: PHARM 3001, PHARM 3012, PHARM 3311, PHARM 3813. Prerequisite or concurrent enrollment: PHARM 3123.

PHARM 3405 FUNDAMENTALS OF DRUG ACTION
Five hours lecture. The topic areas include introduction to pharmacodynamics and receptor pharmacology, principles of medicinal chemistry, absorption, distribution, metabolism, excretion and basics of biopharmaceutics, introduction to pharmacogenomics and pharmacogenetics, an introduction to toxicology of drugs and other chemicals and drug resistance. Prerequisite: CHEM 4124, PHARM 3614.

PHARM 3614 PHYSIOLOGY
Four hours lecture. This course focuses on the structures of the human body and the integrative regulatory mechanisms through which these structures work together to sustain the normal functions of a living organism. Topics that will be covered during the course include the following: cellular and molecular physiology, as well as the nervous, cardiovascular, respiratory, kidney, digestive, and endocrine systems. Prerequisite: Admission to the College of Pharmacy.

PHARM 3813 COMMUNITY PHARMACY
Three hours lecture. An introduction to various aspects of pharmacy practice in a retail or community setting. A discussion of prescription format and interpretation, drug standards and drug laws, communication skills and patient counseling, as well as important characteristics and counseling information for the most commonly dispensed prescription products will be included. Prerequisite: Admission to the College of Pharmacy.

PHARM 3823 HEALTH AND BIOSTATISTICS
Three hours lecture. A practical application of health-related statistical analysis providing students with the knowledge and skills needed to read, interpret, and evaluate quantitative findings in the pharmacy and medical literature. Prerequisite: PHARM 3012.

PHARM 4142 HEALTH-SYSTEM PHARMACY
Two hours lecture. An introduction to institutional pharmacy practice and products. Emphasis on preparation, administration and storage of parenteral or enteral products employing aseptic techniques. General principle of primary and secondary engineering control and sterilization methods are covered as they pertain to the maintenance of proper aseptic conditions. This is followed by importance of documentation, policies and procedures relevant to institution, home infusion and compounding practices. Prerequisite: PHARM 3123. Prerequisite or concurrent enrollment: PHARM 4331.

PHARM 4223 INTRODUCTORY PHARMACY PRACTICE EXPERIENCE – INSTITUTIONAL
Full-time, three-week practicum conducted in an institutional pharmacy; provides introductory experiences in contemporary institutional pharmacy practice including: dispensing; medication management systems; policies and procedures in institutional pharmacy. Prerequisite: PHARM 4142, PHARM 4331.

PHARM 4302 DRUG INFORMATION
Two hours lecture. An overview of drug information sources, retrieval processes, and analysis. Prerequisite: PHARM 3123, PHARM 3823. Prerequisite or concurrent enrollment: PHARM 4612.

PHARM 4323 FOUNDATIONS IN PHARMACY PRACTICE
Three hours lecture. An introduction to the clinical role of the pharmacist with emphasis on patient interviewing and counseling technique, evaluating physical assessment and clinical laboratory data, and problem list development with SOAP note documentation. Prerequisite: PHARM 4302, Blood pressure certification. Prerequisite or concurrent enrollment: PHARM 4341.

PHARM 4331 PHARMACEUTICAL CARE LABORATORY III
This course will provide students with hands on experience in preparing and dispensing parenteral and sterile products and admixtures using aseptic techniques. Emphasis will be given on proper garbing, use of laminar flow hood, handling and labeling of sterile products in institutional dispensing systems. Prerequisite: PHARM 3321. Prerequisite or concurrent enrollment: PHARM 4142.
PHARM 4332 BASIC PHARMACOKINETICS
Two hours lecture. An introduction to pharmacokinetic terminology, particular emphasis on understanding, mathematical and conceptual aspects of basic pharmacokinetics. General principles of pharmacokinetic models are presented as they pertain to the process of absorption, distribution and elimination of drugs in humans and the significance of these processes in drug therapy. Prerequisite: PHARM 3405.

PHARM 4341 PHARMACEUTICAL CARE LABORATORY IV
Development of pharmaceutical care plans; medication therapy management; drug information retrieval and application; patient interviewing and assessments; patient case studies. Prerequisite: PHARM 4302, PHARM 4331. Prerequisite or concurrent enrollment: PHARM 4323.

PHARM 4512 MEDICINAL CHEMISTRY I
Two hours lecture. A study of medicinal chemistry of drug classes involving discussion of important physicochemical parameters, their effects on biochemical including receptors and/or enzymes, pharmacological and pharmacokinetic processes. The study of structure activity relationship (SAR) of the drugs is an important component of the whole course. Prerequisite: PHARM 3405. Prerequisite or concurrent enrollment: PHARM 4612, PHARM 4634.

PHARM 4522 MEDICINAL CHEMISTRY II
Two hours lecture. A study of medicinal chemistry of drug classes involving discussion of important physiochemical parameters, their effects on biochemical including receptors and/or enzymes, pharmacological and pharmacokinetic processes. The study of structure activity relationship (SAR) of the drugs is an important component of the whole course. Prerequisite: PHARM 4512. Prerequisite or concurrent enrollment: PHARM 4612, PHARM 4644.

PHARM 4612 PATHOPHYSIOLOGY I
Two hours lecture. A study of the pathology, pathophysiology, and clinical manifestations of human disease states. Prerequisite: PHARM 3614. Prerequisite or concurrent enrollment: PHARM 4512, PHARM 4634, BIOL 4213.

PHARM 4622 PATHOPHYSIOLOGY II
Two hours lecture. A study of the pathology, pathophysiology, and clinical manifestations of human disease states. Prerequisite: PHARM 4612. Prerequisite or concurrent enrollment: PHARM 4522, PHARM 4644.

PHARM 4634 PHARMACOLOGY I
Four hours lecture. A study of the classification, mechanism of action, pharmacological effects, and therapeutic uses of medications. Prerequisite: PHARM 3405, PHARM 3614. Prerequisite or concurrent enrollment: PHARM 4512, PHARM 4612.

PHARM 4644 PHARMACOLOGY II
Four hours lecture. A study of the classification, mechanism of action, pharmacological effects, and therapeutic uses of medications. Prerequisite: PHARM 4634. Prerequisite or concurrent enrollment: PHARM 4522, PHARM 4622.

PHARM 4712 HEALTH ISSUES I
Two hours lecture. The Health Issues courses are intended to promote awareness of emerging topics and concepts in pharmacy, medicine, and public health. This course will focus on public health policy and the social and behavioral aspects of pharmacy and medicine. Prerequisite: PHARM 4302.

PHARM 5054 NONPRESCRIPTION PRODUCTS THERAPEUTICS
Four hours lecture. An in-depth examination of medical conditions for which nonprescription products are safe and effective. Emphasis is placed on the role of the pharmacist in pharmacist-assisted self-care, including referral to another practitioner when necessary. Nonprescription products labels are examined in detail, including ingredients, indications, contraindications, precautions, warnings, and dosage instructions. Prerequisite: PHARM 4323, PHARM 4341, PHARM 4622, PHARM 4644. Prerequisite or concurrent enrollment: PHARM 5204, PHARM 5351.

PHARM 5204 CONCEPTS OF PHARMACOTHERAPY
Four hours lecture. Predominately lecture-based course which lays the foundation for the principles and application of evidence based medicine, with an emphasis placed on therapy selection rational, medication and disease monitoring, and drug interactions for common acute and chronic diseases seen in the inpatient and ambulatory care setting. Prerequisite: PHARM 4323, PHARM 4341, PHARM 4622, PHARM 4644. Prerequisite or concurrent enrollment: PHARM 5351, PHARM 5301.

PHARM 5234 PRINCIPLES OF PHARMACOTHERAPY
Four hours lecture. Predominately lecture-based course which builds upon the basic sciences and clinical based prerequisites. This course further develops knowledge of the principles and application of evidence based medicine, with an emphasis placed on therapy selection rational, medication and disease monitoring, and drug interactions for additional common acute and chronic diseases seen in the inpatient and ambulatory care setting. Prerequisite: PHARM 5204, PHARM 5351. Prerequisite or concurrent enrollment: PHARM 5361.

PHARM 5301 CLINICAL PHARMACOKINETICS
One hour lecture. The absorption, distribution metabolism and elimination of common medicinal agents will be reviewed. Mathematical modeling will be used to predict the pharmacokinetic behavior of selected medicinal agents in a variety of patient populations. Prerequisite: PHARM 4323, PHARM 4332, PHARM 4341. Prerequisite or concurrent enrollment: PHARM 5204, PHARM 5351.

PHARM 5351 PHARMACEUTICAL CARE LABORATORY V
Interactive, advanced patient care course focused on the collection and interpretation of patient specific data, the identification of pharmaceutical care-related problems and therapeutic recommendations based on case scenarios. Introductory topics related to patient care not covered elsewhere will be introduced at the beginning of the course. Prerequisite: PHARM 4323, PHARM 4341, PHARM 4622, PHARM 4644. Prerequisite or concurrent enrollment: PHARM 5204, PHARM 5301.

PHARM 5361 PHARMACEUTICAL CARE LABORATORY VI
Capstone course with increased independent learning via patient case studies focused on the development and implementation of pharmaceutical care plans with emphasis on therapeutic recommendations, monitoring, and adjustments in patients with multiple concomitant diseases. This course is also designed to improve upon professional skills such as problem-solving, presentation skills, writing skills, and drug information skills. Prerequisite: PHARM 5204, PHARM 5351, PHARM 5301. Prerequisite or concurrent enrollment: PHARM 5234.

PHARM 5753 TOXICOLOGY
Three hours lecture. An introduction to the general principles of toxicology focusing on organ systems response to toxic chemicals; classes of toxic compounds including drugs, industrial chemicals, heavy metals, pesticides, food additives, natural toxins and venoms, and environmental pollutants; and clinical assessment and treatment of poisoning and toxicant exposure. Prerequisite: PHARM 4522, PHARM 4622, PHARM 4644.

PHARM 5812 HEALTH ISSUES II
Two hours lecture. A continuation of the Health Issues series, intended to promote awareness of emerging topics and concepts in pharmacy, medicine, and public health. This course will review the
basic concepts of pharmacognosy and focus on current topics in the areas of alternative and complementary medicine, nutrition, disease prevention, and wellness. **Prerequisite:** PHARM 4812.

PHARM 5822 HEALTH ISSUES III
Two hours lecture. The Health Issues courses are intended to promote awareness of emerging topics and concepts in pharmacy, medicine, and public health. This course will focus on principles of pharmacogenomics and contemporary issues in personalized medicine including drug efficacy and medication safety. **Prerequisite:** PHARM 5812.

PHARM 5823 PHARMACY ADMINISTRATION
Three hours lecture. An introduction to basic management and administrative processes essential for pharmacy operations. The role of managed care in the delivery of health care at the local and national level is developed. The interface of pharmaceutical care delivery and managed care policy is examined. **Prerequisite or concurrent enrollment:** PHARM 5204.

PHARM 5844 JURISPRUDENCE
Three hours lecture. A survey of federal and state laws and regulations which pertain to the practice of pharmacy. **Prerequisite or concurrent enrollment:** PHARM 5234.

PHARM 5853 PHARMACY MANAGEMENT & MARKETING
Three hours lecture. A study of the basic principles of management with an emphasis on financial accounting, operations analysis, and human resources. The use of basic marketing principles for product acquisition and promotion of pharmaceutical care services is developed. **Prerequisite or concurrent enrollment:** PHARM 5204.

PHARM 5914 and 5924 ADVANCED PHARMACY PRACTICE EXPERIENCE - COMMUNITY A & B
Each is a full-time monthly practicum conducted in an independent and/or chain community pharmacy. Instruction and supervised pharmacy practice training is provided by an instructor in off-campus affiliated teaching community pharmacies. The advanced student applies the knowledge and skills from previous coursework and training to demonstrate pharmaceutical care in ambulatory patients. **Prerequisites:** Fourth professional year standing.

PHARM 5934 ADVANCED PHARMACY PRACTICE EXPERIENCE - INSTITUTIONAL
A full-time monthly practicum conducted in an institutional setting. The advanced student utilizes their previous coursework and training to demonstrate the application of pharmaceutical care. Drug policy management, distribution systems and administrative activities are also covered. **Prerequisites:** Fourth professional year standing.

PHARM 5944 and 5984 ADVANCED PHARMACY PRACTICE EXPERIENCE - SELECTIVE A & B
Each is a full-time monthly practicum conducted at a pharmacy practice site. Instruction and supervised pharmacy practice training is provided by an instructor at a pharmacy practice site. The advanced student selects from a variety of optional pharmacy practice experiences including medicine and/or home health care, consulting practice, nuclear pharmacy, Indian health services, specialty compounding pharmacies, managed care, administrative rotations, additional community or institutional rotations. **Prerequisite:** Fourth professional year standing.

PHARM 5954, 5964 and 5974 ADVANCED PHARMACY PRACTICE EXPERIENCE - MEDICINE A, B & C
Each is a full-time monthly practicum with supervised instruction in a patient care setting, including ambulatory care. The advanced student must demonstrate the application of pharmaceutical care to patients throughout the rotation experience. This is accomplished by Socratic faculty teaching utilizing low student to faculty ratios and intense problem solving activities. **Prerequisites:** Fourth professional year standing.

PHARM 5994 ADVANCED PHARMACY PRACTICE EXPERIENCE - AMBULATORY CARE
A full-time monthly practicum with supervised instruction in an ambulatory care setting. The advanced student must demonstrate the application of pharmaceutical care to patients throughout the rotation experience. This is accomplished by Socratic faculty teaching utilizing low student to faculty ratios and intense problem solving activities. **Prerequisite:** Fourth professional year standing.

**Professional Electives**

PHARM 4101-2 PHARMACEUTICAL RESEARCH
One-two hours credit. Under guidance and supervision by a College of Pharmacy faculty member, pharmacy students will participate in original research projects in the pharmaceutical sciences or in the area of pharmacotherapeutics. **Prerequisites:** Second year standing; consent of instructor.

PHARM 4602 SUBSTANCES OF ABUSE & ADDICTION
A study of misused or abused substances, including addiction theories and mechanisms of addictive behaviors, the action and consequences of substance abuse, and the methods used by society and the medical establishment to treat addictive behaviors. Open to pharmacy, upper division, and graduate non-pharmacy students.

PHARM 4702 CULTURAL COMPETENCY FOR PATIENT-CENTERED CARE
Two hour lecture. An elective course that examines historical and sociological ideas related to the development of cultural competence. A culturally competent healthcare provider, who fully understands the patient’s values, preferences, and beliefs about health and wellness, is essential to providing patient-centered care. Culturally competent healthcare providers are self-aware, respectful of others, lifelong learners and provide high quality care to all. **Prerequisite:** Second professional year standing or permission of the instructor.

PHARM 4732 PHARMACY CASE STUDIES
Two hour lecture. Using an active-learning approach, pharmacy students will evaluate patient information in both community and health-system pharmacy scenarios, identify clinically significant problems, and consult appropriate guidelines from the medical literature to determine solutions to patient problems. The course serves as an introduction to case study analysis for students transitioning to pharmacy course work, but also provides advanced students additional opportunities to apply knowledge and to practice case study skills. **Prerequisites:** PHARM 4612, PHARM 4634 or concurrent enrollment.

PHARM 4811-2 SPECIAL PROBLEMS IN PHARMACY ADMINISTRATION
One-two hours credit. Seminar/discussion/special projects format of current topics and research in pharmacy administration. **Prerequisite:** First professional year standing.

**PHARM 4832 HEALTH CARE SYSTEMS**
Two hour lecture. An introduction to the health care system of the United States and how the pharmacist interrelates to this system. The organizational structure of the health care system is examined and the role of government in changing the organizational structure is emphasized. **Prerequisite:** First professional year standing.

**PHARM 4842 LEGAL ISSUES IMPACTING PHARMACISTS**
Two hour lecture. An elective course that addresses and prepares pharmacy students for many of the challenges facing future leadership and management in the profession. Students will be involved in case discussions, mock events, and a review of laws involving pharmacy employers/employees, business and personal life. **Prerequisite:** Second professional year standing or permission of the instructor.

**PHARM 4852 ISSUES IN BUYING AND SELLING A PHARMACY**
Two hour lecture. An elective course that addresses issues when buying and/or selling a pharmacy and prepares the pharmacy student for many of the challenges expected when involved in such a transaction. Students will be exposed to all aspects of such transactions including asset transfer, contract review, financing, and development of the business plan. **Prerequisite:** Second professional year standing or permission of the instructor.

**PHARM 5172 CURRENT CONCEPTS IN PHARMACEUTICS**
An elective course dealing with current topics in pharmaceutics. **Prerequisite:** PHARM 4012 or consent of instructor.

**PHARM 5312 POST GRADUATE PREPARATION**
Two-hour lecture/online. An elective course focused on professional preparation for students interested in pursuing residency or other postgraduate opportunities. Focus on development of curriculum vitae, letters of intent, personal statements, and presentation and interviewing skills. Development of other pertinent professional attitudes will be covered. Involvement in pharmacy organizations, volunteerism, and student scholarship will also be discussed and encouraged. There is a service learning requirement as well as encouraged attendance of two state or national pharmacy organizational meetings during the semester. **Prerequisite:** Third professional year standing and instructor approval.

**PHARM 5342 CURRENT CONCEPTS IN PHARMACY PRACTICE**
An elective course dealing with current topics in pharmacy practice. **Prerequisite:** PHARM 4323 or consent of instructor.

**PHARM 5422 CURRENT CONCEPTS IN MEDICINAL CHEMISTRY**
Two hour lecture. An elective course dealing with new processes and techniques in medicinal chemistry and drug discovery. After giving a brief introduction about different processes in drug discovery, some important drug discovery cases will be studied. **Prerequisite:** PHARM 3405, PHARM 4512 or permission of instructor.

**PHARM 5712 VETERINARY PHARMACOLOGY**
Two hour lecture. An elective course dealing with the overview of drugs and/or drug use that is unique to veterinary practice as well as discussion of the pathophysiology and pharmacology of veterinary diseases. **Prerequisite or concurrent enrollment:** PHARM 4655.

**PHARM 5772 CURRENT CONCEPTS IN PHARMACOLOGY**
An elective course dealing with current topics in pharmacology. **Prerequisite:** PHARM 4634 or permission of the instructor.

**PHARM 5802 CURRENT TOPICS IN PHARMACY ADMINISTRATION**
Two hour lecture. The exploration of current administrative principles which affect the practice of retail, home health and institutional pharmacy with the objective of orienting the student to the latest developments in areas of risk management, business enhancement and management theory. **Prerequisite:** Second professional year standing or permission of the instructor.

**PHARM 5902 FINANCIAL MANAGEMENT FOR THE PHARMACIST**
Two hour lecture. A study of financial planning, investment analysis, tax analysis, budgeting, and other aspects of personal and business finances. **Prerequisites:** Second professional year standing or permission of the instructor.
ALTERNATIVE PROFESSIONAL ELECTIVES

SPAN 3023 SPANISH FOR HEALTHCARE PROFESSIONALS
Course designed to develop language skills with a focus on listening and speaking to provide vocabulary and conversational practice in realistic healthcare, pharmacy and/or emergency situations with emphasis on real-life vocabulary. Spanish-language media and public-service opportunities; planned and spontaneous activities augment course text. F, S

SW 5860 Workshops, Seminars (Summer Institute)
University of Utah School on Alcoholism and Other Drug Dependencies
Credit provided by the University of Utah, College of Social Work. Credits must be transferred to SWOSU to qualify.

PROFESSIONAL ELECTIVES
PharmD/MBA Dual Program Students Only

Successful completion of any two of the following nine business courses will meet the professional elective requirements for the doctor of pharmacy program.

ACCTG 5633 FINANCIAL ACCTG FOR DECISION MAKING
MNGMT 5533 MNGMT & ORGANIZATIONAL BEHAVIOR
ECONO 5653 ADVANCED MANAGERIAL ECONOMICS
MNGMT 5643 ADV QUANT METHODS & OPER ANALYSIS
ECONO 5763 ADVANCED BUSINESS STATISTICS
MNGMT 5923 BUSINESS STRATEGY & POLICY
FINAN 5263 ADVANCED FINANCIAL MANAGEMENT
MRKTG 5623 MARKETING STRATEGY
MNGMT 5433 ADV HUMAN RESOURCE MANAGEMENT
COLLEGE OF PHARMACY

Scholarship recipients are selected by the College of Pharmacy Awards Committee. Various criteria, including scholastic achievement, financial need, leadership, professionalism, service, professional standing and/or career interests, are associated with each scholarship and applied during the selection process.

ABBOTT FAMILY SCHOLARSHIP: Established by Kent and Jalee Abbott, graduates of the College of Pharmacy.

AL HARRIS SCHOLARSHIP: A Pharmacy Foundation Enrichment Scholarship that honors a past president of SWOSU.

ALBERT EATON MEMORIAL SCHOLARSHIP: In memory of Mr. Albert Eaton, one of the founders of the College of Pharmacy.

ALBERT ROSS PHARMACY SCHOLARSHIP: In memory of former pharmacist, Albert Ross, of Clinton, Oklahoma.

AMY SWITZER JONES MEMORIAL SCHOLARSHIP: In memory of Amy Switzer Jones, a graduate of the College of Pharmacy.

A. WAYNE SALISBURY ENDOWED SCHOLARSHIP: A scholarship established by Mr. Salisbury, a graduate of the College of Pharmacy and a Distinguished Alumni of SWOSU.

BAUCUM FAMILY PRACTICE GRANTS: Established by Tom Baucum, a graduate of the College of Pharmacy.

BERT BRUNDAGE SCHOLARSHIP: A Pharmacy Foundation Enrichment Scholarship that honors a founder of the College of Pharmacy.

BEST VALUE PHARMACIES INDEPENDENT SCHOLARSHIPS: Provided by the Best Value Pharmacies company.

B. G. KELLER FAMILY MEMORIAL SCHOLARSHIP: In memory of the parents of Dr. B.G. Keller, Jr.

B. G. KELLER, JR. MEMORIAL SCHOLARSHIP: In honor of Dr. B. G. Keller, Jr., Dean Emeritus of the College of Pharmacy.

BILLY G. WELLS SCHOLARSHIP: Honors the former Director of Pharmacy for the Indian Health Service.

BREWSTER FAMILY MEMORIAL SCHOLARSHIP: In memory of Keisha and Kent Brewster, children of Bill Brewster, a distinguished alumnus of the College of Pharmacy.

BURTON FUND PHARMACY PRACTICUM GRANTS-IN-AID: In memory of Dr. Harold Burton, a former President of SWOSU.

CARDINAL HEALTH SCHOLARSHIP: A scholarship from Cardinal Health that recognizes significant interest in independent pharmacy practice.

CHARLES AND ELIZABETH SCHWARTZ MEMORIAL SCHOLARSHIP: In memory of Dr. Charles Schwartz, professor emeritus, and his wife, Elizabeth Schwartz.

CLYDE MILLER MEMORIAL SCHOLARSHIP: In memory of Clyde E. Miller, a benefactor of the College of Pharmacy.

CVS PHARMACY SCHOLARSHIPS: Provided by CVS Pharmacy.

CYNTIA JEAN TOAL MEMORIAL AWARD: In memory of Cindy Toal, a graduate of the College of Pharmacy.

DAN RIVKIN SCHOLARSHIP: A Pharmacy Foundation Enrichment Scholarship that honors a former Dean of the College of Pharmacy.

DARLA RUSSELL SYKES MEMORIAL SCHOLARSHIP: In memory of Darla Russell Sykes, a graduate of the College of Pharmacy.

DONALD R. MASSE MEMORIAL PRACTICE GRANT: In memory of Donald R. Masse, a graduate of the College of Pharmacy.

DR. FADEL MAHDY MEMORIAL SCHOLARSHIP: Established by Dr. Sarah Mahdy, 2008 graduate of the College of Pharmacy, to honor her father.

EDGEMAN FAMILY SCHOLARSHIP: Established by Sabrina and Nelson Edgemen, 2004 graduates of the College of Pharmacy, this scholarship is presented to a student for assistance during their professional practice rotation.

EDWARD C. CHRISTENSEN MEMORIAL SCHOLARSHIP: In memory of Edward C. Christensen, a former Professor of the College of Pharmacy.

ELGENIA H. FRENCH MEMORIAL SCHOLARSHIP: In memory of ElGenia French, a former Professor of the College of Pharmacy.

FLOYD S. ULRICH MEMORIAL SCHOLARSHIP: In memory of Floyd S. Ulrich, Associate Professor Emeritus of the College of Pharmacy.

FRANK G. and ANN E. HODGES MEMORIAL SCHOLARSHIP: In memory of the parents of an alumnus of the College of Pharmacy.

FREDDIE REID BRINKMAN SCHOLARSHIP: Established by 1965 College of Pharmacy graduate, Freddie Brinkman.

GARY RUSSI ENDOWED SCHOLARSHIP: A scholarship established by Dr. Gary Russi, a graduate of the College of Pharmacy and a Distinguished Alumnus of SWOSU.

HAROLD BURTON MEMORIAL SCHOLARSHIP: In memory of a past president of Southwestern Oklahoma State University.
H. DAVID BERGMAN SCHOLARSHIP: In honor of Dr. H. David Bergman, Dean Emeritus of the College of Pharmacy.

HEALTH EXPRESS PHARMACY GROUP SCHOLARSHIP: Provided by the member stores of Health Express Pharmacy Group.

HENRY HEROLD MEMORIAL SCHOLARSHIP: In memory of Dr. Henry Herold, a benefactor of the College of Pharmacy.

H. F. TIMMONS SCHOLARSHIP: In memory of Dr. H. F. Timmons, Dean Emeritus of the School of Health Sciences.

H. F. TIMMONS SWOSU FOUNDATION SCHOLARSHIPS: In memory of Dr. H. F. Timmons, honoring his years of service to the Southwestern Pharmacy Foundation.

INA G. BLACK MEMORIAL SCHOLARSHIP: In memory of Ina G. Black, Associate Dean Emeritus of the College of Pharmacy.

IRBY FAMILY PRACTICE GRANTS: Established by the Lowell Irby Family of Artesia, New Mexico.

JAMES B. BOREN MEMORIAL SCHOLARSHIP: In memory of a past president of SWOSU.

JASON AND GENA DUPUS ENDOWED SCHOLARSHIP: Established by Jason and Gena Dupus, graduates of the College of Pharmacy, this scholarship fund provides assistance to students in their 1st or 2nd professional year of the program.

JERRY & MARGARET HODGE PRACTICE GRANTS: Established by Jerry & Margaret Hodge of Amarillo, Texas.

JERRY D. McWILLIAMS MEMORIAL SCHOLARSHIP: In memory of Jerry D. McWilliams, a graduate of the College of Pharmacy.

JIM LETT FAMILY FUND PHARMACY PRACTICUM GRANTS-IN-AID: In memory of Mr. Jim Lett, a benefactor of the College of Pharmacy.

JOSEPH J. SCHWEMIN MEMORIAL SCHOLARSHIP: In honor of Joe Schwemin, a distinguished alumnus of the College of Pharmacy.

LEONARD CAMPBELL SCHOLARSHIP: A Pharmacy Foundation Enrichment Scholarship in memory of a former President of SWOSU.

LONNY WILSON ENDOWED SCHOLARSHIP: In honor of Lonny Wilson, 1973 College of Pharmacy graduate and 2012 NCPA President.

MCKESSON, INC. OF OKLAHOMA CITY SCHOLARSHIP: Provided by McKesson Wholesale Company.

MICHAEL A. BROWN MEMORIAL SCHOLARSHIP: In memory of Michael A. Brown, a graduate of the College of Pharmacy.

NEPARKO FAMILY COLLEGE OF PHARMACY SCHOLARSHIP: Established by the Edward and Mary Neparko family.

NORMAN E. FOSTER MEMORIAL SCHOLARSHIP: In memory of Norman E. Foster, a former Assistant Professor of the College of Pharmacy.

OKLAHOMA PHARMACISTS ASSOCIATION AUXILIARY AWARD: Provided by the Oklahoma Pharmacists Association Auxiliary.

OKLAHOMA SOCIETY OF HEALTH-SYSTEM PHARMACISTS SCHOLARSHIP: A scholarship provided to a professional program student as selected by the Oklahoma Society of Health-System Pharmacists.

PHARMACISTS MUTUAL INSURANCE COMPANY SCHOLARSHIP: Provided by Pharmacists Mutual Insurance Company.

PHARMACARE OK SCHOLARSHIP: Provided by Pharmcare OK.

QUEST FOR EXCELLENCE 50TH ANNIVERSARY SCHOLARSHIP: In honor of the 50th Anniversary of the College of Pharmacy.

REINHAUS FAMILY FOUNDATION SCHOLARSHIPS: A recurring scholarship presented to professional program students based on criteria established by the Reinhaus Foundation.

RHO CHI SCHOLARSHIP: Provided by the Rho Chi Honor Society.

RICHARD M. ALLEN PHARMACY SCHOLARSHIP: In honor of Richard Allen, 1970 graduate of the College of Pharmacy.

RONNIE SCOTT HOLUBY ENDOWED SCHOLARSHIP: Established by 1998 College of Pharmacy graduate, R. Scott Holuby.

SECUNDUM ARTUM COMPOUNDING SCHOLARSHIPS: Supported by David and Kay Sparks of Professional Compounding Centers of America, these scholarships are presented to professional students with an interest in compounding.

SHELDON WEBB ENDOWED SCHOLARSHIP: Established by 2008 College of Pharmacy graduate, Sheldon Webb.

SOUTHWESTERN PHARMACY ALUMNI ASSOCIATION SCHOLARSHIPS: Practice Grants established by the Southwestern Pharmacy Alumni Association.

SUSAN BOOKOUT MEMORIAL SCHOLARSHIP: In memory of Susan Bookout, a graduate of the College of Pharmacy.

TARRANT COUNTY PHARMACEUTICAL ASSOCIATION SCHOLARSHIP: A scholarship provided by the Tarrant County Pharmaceutical Association.
VELMA EATON MEMORIAL SCHOLARSHIP: In memory of Mrs. Velma Eaton, wife of one of the founders of the College of Pharmacy.

WALGREENS DIVERSITY SCHOLARSHIPS: Provided by the Walgreens company to increase awareness in diversity and community outreach.

WAL-MART PHARMACY SCHOLARSHIPS: Provided by Wal-Mart.

WALTER L. DICKISON MEMORIAL SCHOLARSHIP: In memory of Dr. Walter L. Dickison, Dean Emeritus of the College of Pharmacy.

W. A. "TATE" TAYLOR MEMORIAL SCHOLARSHIP: In memory of the former Executive Director of the Oklahoma Pharmaceutical Association and friend of the College of Pharmacy.

WAYNE BEARDEN MEMORIAL SCHOLARSHIP: In memory of Wayne Bearden, a graduate of the College of Pharmacy.

W. D. STROTHER MEMORIAL SCHOLARSHIP: In memory of W. D. Strother, former Dean of the College of Pharmacy.

COLLEGE OF PHARMACY HONORS AND AWARDS

Special recognition is given to pharmacy students at the Annual Pharmacy Honors and Awards Convocation and through senior awards presented at the Graduate Recognition Ceremony. Recognition may be in the form of scholarships or other valued awards:

ASP OUTSTANDING SENIOR RECOGNITION AWARD: A certificate presented by the SWPhA advisor to an outstanding member of SWPhA.

EXCELLENCE IN PHARMACY PRACTICE AWARDS: Presented for superior performance during Advanced Pharmacy Practice Experiences.

FACTS AND COMPARISON EXCELLENCE AWARD IN CLINICAL COMMUNICATION: This award of a set of reference books is given to a professional student on the basis of academic achievement and superior verbal and written clinical communication skills.

MERCK, SHARP, AND DOHME COMPANY AWARDS: These awards are presented to students with high scholastic achievement and leadership qualities.

MYLAN PHARMACEUTICALS EXCELLENCE IN PHARMACY AWARD: This award is presented to a professional student on the basis of excellent scholarship and leadership achievement.

NATURAL STANDARD RESEARCH COLLABORATION AWARD: Granted to an exemplary senior student for perpetuating multidisciplinary, evidence-based research practices, healthcare communications, or information.

OKLAHOMA PHARMACISTS ASSOCIATION MEMBERSHIP AWARD: This award provides a one-year membership in the Oklahoma Pharmaceutical Association.

OKLAHOMA SOCIETY OF HEALTH-SYSTEM PHARMACISTS ANNUAL AWARD: This annual award is presented to a professional student, selected by the faculty, who has a professional interest in hospital pharmacy.

PHARMACISTS MUTUAL INSURANCE COMPANY BOOK AWARD: A copy of a significant book in pharmacy is given to a professional student for scholastic performance.

COLLEGE OF PHARMACY RECOGNITION AWARDS: Appropriate awards are presented by the faculty to professional students who have made significant contributions to the College of Pharmacy.

SISTER MARY TERESA BRAMSIEPE HOSPITAL AWARD: An engraved plaque and a savings bond are presented by the sisters of St. Francis and St. Anthony Hospital, Oklahoma City to a student who has a special interest in hospital pharmacy.

SOUTHWESTERN COLLEGE OF PHARMACY OUTSTANDING GRADUATE AWARD: This award, which is presented to the outstanding graduate, is based on superior professional & scholastic achievement.

SOUTHWESTERN PHARMACY ALUMNI ASSOCIATION: The Alumni Association provides financial support for various student functions.

SOUTHWESTERN PHARMACY ALUMNI ASSOCIATION LEADERSHIP AND SERVICE AWARD: This award recognizes a graduating student who has demonstrated outstanding leadership and service to the profession.

TEVA PHARMACEUTICALS OUTSTANDING STUDENT AWARD: This award is made to a professional student selected by the faculty.