



ST. LOUIS COLLEGE *of* PHARMACY

EST. 1864

*2011-12 Academic Catalog*



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## ST. LOUIS COLLEGE OF PHARMACY

4588 Parkview Place

St. Louis, MO 63110-1088

314.367.8700 Fax 314.446.8304

1.800.2.STLCOP

[www.stlcop.edu](http://www.stlcop.edu)

**PLEASE NOTE**

St. Louis College of Pharmacy has the right to change  
the content of this catalog without advance notice.

# Accreditation

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St. Louis College of Pharmacy is accredited by the Accreditation Council for Pharmacy Education and the North Central Association of Colleges and Schools.

## **Accreditation Council for Pharmacy Education**

135 S. LaSalle Street, Suite 4100  
Chicago, IL 60603  
312.664.3575  
800.533.3606  
FAX: 312.664.4652 or 312.664.7008



## **The Higher Learning Commission**

North Central Association of Colleges and Schools  
230 S. LaSalle St., Suite 7-500  
Chicago, IL 60604  
312.263.0456  
800.621.7440  
FAX: 312.263.7462

St. Louis College of Pharmacy admits students of any race, color, and national or ethnic origin, and does not discriminate against the disabled nor on the basis of gender or age in admissions policies, educational programs, activities, or employment policies, as required by Section 504 of the 1973 Rehabilitation Act and by Title IX of the 1972 Education Amendments. Inquiries regarding compliance with Title IX or Section 504 may be directed to the director of human resources, St. Louis College of Pharmacy; 4588 Parkview Place; St. Louis, MO 63110; 314.367.8700, or to the director of the Office for Civil Rights, Department of Education, Washington, D.C.

# 2011-12 Academic Calendar

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## 2011 Fall Semester

**August 22, Monday**

Classes Begin

**September 5**

Labor Day - College Closed

**September 16, Friday**

Presidential Inauguration Day

No Classes

**October 10-11, Monday, Tuesday**

Fall Break - No Classes

**November 23-25, Wednesday - Friday**

Thanksgiving - College Closed

**December 6, Tuesday**

Last Day of Classes

**December 7, Wednesday**

No Classes

**December 8-9, 12-14**

Final Examinations

**December 25-January 1**

College Closed

## 2012 Spring Semester

**January 10**

Registration Changes for Returning Students

**January 16, Monday**

Martin Luther King Jr. Day

College Closed

**January 17, Tuesday**

Classes Begin

**Date TBD by Board of Pharmacy**

Missouri Legislative Day

No Classes

**March 19-23, Monday-Friday**

Spring Break - No Classes

**April 24, Tuesday**

Assessment Day - No Classes

**May 1, Tuesday**

Last Day of Classes

**May 2, Wednesday**

No Classes

**May 3-4, 7-9,**

Final Examinations

**May 17, Thursday**

Commencement

## 2012 Summer Session

**May 21, Monday**

Session I Begins

**May 28, Monday**

Memorial Day - College Closed

**June 25, Monday**

Session II Begins

**July 4, Wednesday**

Independence Day - College Closed

# St. Louis College of Pharmacy

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## Our Vision

St. Louis College of Pharmacy will be globally prominent in pharmacy and health care education, interprofessional patient-centered care, and collaborative research.

## Our Mission

St. Louis College of Pharmacy is a supportive and enriching environment for growth, advancement, and leadership and prepares our students, residents, faculty, staff, and alumni to positively impact patients and society.

## Student Ability-Based Outcomes

A primary purpose of St. Louis College of Pharmacy is to prepare students to lead useful and satisfying lives, to contribute and lead in their communities, and to advance the profession of pharmacy. To these ends, the College strives to provide its students a sound foundation in the basic sciences and liberal arts, and a thorough grounding in the principles of pharmaceutical care. Students are expected to develop and demonstrate the abilities described by the following outcomes and related performance criteria:

### General Ability Outcomes

#### • Thinking and Decision-Making

The student can find, understand, analyze, evaluate, and synthesize information and make informed, rational, and responsible decisions.

#### • Communication Abilities

The student can read and listen with understanding and can communicate with various audiences for a variety of purposes.

#### • Mathematical Competence

The student is proficient in the expression of quantitative relationships and can perform the needed mathematical operations to infer his or her consequences.

#### • Scientific Competence

The student can evaluate the scientific validity of inferences drawn from evidence or experiments.

#### • Historical and Cultural Consciousness

The student can make judgments informed by historical, social, economic, scientific, and political contexts and is respectful of the cultural differences between those of diverse ethnic, sexual, age, and religious groups.

#### • Aesthetic Sensitivity

The student can articulate the transforming roles art and beauty play in one's personal life and in society.

#### • Self and Social Awareness

The student demonstrates an understanding of self and others, which enhances personal and professional relations.

#### • Valuing and Ethical Decision-Making

The student can articulate the relationship of values to ideas and actions and can use clearly defined ethical principles as a basis for conduct in personal and professional settings.

#### • Citizenship and Leadership

The student understands the individual's role as a member of the civic and professional communities and exhibits the capacity to contribute to and assume leadership roles within these communities as is appropriate.

#### • Self-Learning Abilities

The student exhibits intellectual curiosity, takes responsibility for gaining new knowledge and skills, can self-assess, and adapt to change.

*For courses approved during and after the 2010-11 academic year, the following general ability outcomes will apply:*

#### • Problem Solving

The graduate identifies problems and potential approaches for solving these; and designs, implements, and evaluates effective and appropriate strategies to arrive at viable solutions.

#### • Critical Thinking

The graduate systematically explores and analyzes issues, assumptions, evidence, ideas, and events before accepting opinions or formulating conclusions.

#### • Creative Thinking

The graduate thinks and works in a manner characterized by imagination, innovation, divergent thinking, and risk taking.

#### • Written Communication

The graduate writes clearly and effectively to diverse audiences for a variety of purposes.

#### • Oral Communication

The graduate enhances shared understanding by listening to, interpreting, developing, and expressing ideas, verbally and nonverbally, in oral formats, across a range of technologies and for a variety of purposes and audiences.

#### • Valuing & Ethical Decision-Making

The graduate makes decisions about personal and professional conduct through a process that relates values to ideas, actions, and consequences and uses clearly defined ethical principles.

- **Foundations & Skills for Lifelong Learning**

The graduate exhibits intellectual curiosity; takes responsibility for developing knowledge, skills, attitudes, values, and habits; and conducts regular self-assessment to develop and enact a plan to improve performance, adapt to change, and promote continuous personal and professional growth.

- **Scientific & Quantitative Literacy**

The graduate develops, manages, and applies a scientific and mathematical knowledge base to evaluate data in a variety of contexts. **The graduate extrapolates from existing information to predict the probability of various outcomes.**

- **Integrative Learning**

The graduate makes connections among ideas, bodies of knowledge, and experiences to synthesize and transfer learning to new, complex situations.

- **Cultural & Social Competence**

The graduate demonstrates self-knowledge and empathetic understanding of others; makes judgments informed by historical, aesthetic, cultural, social, behavioral, economic, political, and global contexts; and works responsibly and effectively with diverse populations.

- **Collaboration**

The graduate contributes to team tasks and responsibilities, facilitates participation of group members, fosters a constructive climate, and manages and resolves conflict to strengthen overall cohesiveness and effectiveness.

- **Civic Engagement**

The graduate works to make a difference in his/her community.

- **Information Literacy**

The graduate determines the extent of information needed; and identifies, locates, retrieves, evaluates, and effectively and responsibly uses and shares that information to accomplish a specific purpose.

- **Reading**

The graduate exhibits a range of well-developed and discipline-specific skills and strategies to interpret written text.

- **Professional Ability Outcomes**

- **Patient-Specific Drug Therapy Assessment**

The student can identify and assess therapeutic problems after appropriately gathering and organizing patient-related data.

- **Comprehensive Drug Therapy Plans**

The student can develop comprehensive drug therapy plans for specific patients based on their individual needs.

- **Professional Practice Management**

The student can practice pharmaceutical care and effectively and efficiently manage patient drug therapies, drug distribution systems, cognitive practice activities, and professional development.

- **Collaboration with Patients, Caregivers, and Health Professionals**

The student can identify, describe, evaluate, and employ effective collaborative strategies in the practice of pharmaceutical care.

*For courses approved during and after the 2010-11 academic year, the following outcomes will apply:*

- **Pharmaceutical Care**

The graduate provides pharmaceutical care in cooperation with patients, prescribers, and other members of an interprofessional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, economic, and professional issues, emerging technologies, and evolving pharmaceutical, biomedical, sociobehavioral, and clinical sciences that may impact therapeutic outcomes.

- **Systems Management**

The graduate manages and uses resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.

- **Public Health**

The graduate promotes health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers.

# About the College

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Founded in 1864, St. Louis College of Pharmacy is one of the oldest colleges of pharmacy in the nation, and the College consistently graduates one of the top 20 largest classes of pharmacists in the country. St. Louis College of Pharmacy's 6,200 living alumni represent 50 states and 11 countries. More than 72 percent of practicing pharmacists in the St. Louis area are St. Louis College of Pharmacy graduates.

## Doctor of Pharmacy

The Doctor of Pharmacy (Pharm.D.) curriculum consists of 208 semester hours of study, divided into 155 semester hours of required coursework, 21 hours of elective coursework, and 32 hours devoted to advanced practice experiences in year six. The total program requires six years of study. Included in the required coursework in years three, four, and five are introductory practice experiences, which expose students to various practice settings and teach basic pharmaceutical care practice skills.

## The Campus

The 6.5-acre campus is located in the heart of St. Louis' Central West End medical community. Along with its medical resources, the campus offers students an academically and socially enriching environment, including:

- Two academic buildings that include laboratories, classrooms, the O.J. Cloughly Alumni Library, a 300-seat auditorium, and administrative facilities.
- Cartwright Student Center, a 23,000-square-foot facility featuring student lounges, a large multipurpose room, Matthews bookstore, a student conference room, the gym, and a fitness and recreation center.
- Residence Hall which offers dining facilities and provides student housing accommodations for 300 students staffed by trained resident assistants and a full-time residence life coordinator.

First-year students are given priority consideration to live in Residence Hall. Returning second-year students are considered for Residence Hall after all first-year students have been accommodated.

- Parking is available for approximately 500 vehicles in the College parking garage. Parking spaces are available on a rental basis. First-year students living in Residence Hall are not eligible to park in the College garage. Parking is also available in the nearby medical center complex

## Annual Security Report

An annual security report listing campus crime statistics is available upon request from:

**Security Base** (first floor of College parking garage)

St. Louis College of Pharmacy

4588 Parkview Place

St. Louis, MO 63110-1088

314.446.8381

E-mail: secuser@stlcop.edu

## Student Life

Guidelines and policies related to student behavior and activities, including sanctions for violating these policies, are included in the Student Code, which is distributed to all new students.

Student life at the College is active and diversified, and consists of professional and service-oriented events as well as social activities. Campus activities are sponsored by various student organizations, Greek organizations, and professional pharmacy organizations. Social activities include dances, the Homecoming Olympiad and a Student Body Union-sponsored variety show, St. Louis Cardinals and Blues games, and community service projects.

The St. Louis College of Pharmacy Alumni Association serves current students by providing scholarships and awards. The Alumni Association also sponsors a professional fair that provides opportunities for students to interact with practitioners from various career settings.

# Requirements for Admission

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St. Louis College of Pharmacy seeks to attract students who: have the ability to render pharmaceutical care; can benefit from an educational environment to understand life, self, and culture; can develop an appreciation for the world and the environment; have compassion for the needs of others that prompts an obligation to community service; and who understand the need for lifelong learning. Applications and required documents for admission to the College should be sent to:

## Office of Admission

Enrollment Services  
St. Louis College of Pharmacy  
4588 Parkview Place  
St. Louis, MO 63110-1088

## First-Year Students

First-year applicants must present evidence of the satisfactory completion of a four-year course in, and graduation from, a high school approved by a recognized accrediting agency or its equivalent.

### High school courses should include:

- Four years of English
- Four years of math; must have algebra I & II and geometry
- Three years of science; must have biology and chemistry with labs

### Other courses recommended are:

- One unit of physics
- Additional units in the subjects listed above, or other science and math courses

### Academic performance in high school must meet minimum requirements of:

- Cumulative grade point average of at least 3.0 on a 4.0 scale
- Final rank in the upper 50 percent of the graduating class (students ranking in the top 10 percent of their senior class will be given priority consideration)
- Minimum ACT composite score of 23 and/or SAT combined score of 1100 (minimum ACT math subscore of 24; minimum subscore of 21 for English, science, and reading)

## Advanced Placement Tests/Coursework Taken Outside the College

St. Louis College of Pharmacy grants advanced standing in the form of credit hours to entering students who, on the basis of performance on the Advanced Placement (AP) tests, demonstrate proficiency in English, literature, mathematics, and selected humanities. A minimum score of three (four in

calculus, four in English language and composition) must be granted to receive course credit. Advanced standing will not be granted for science courses based on Advanced Placement tests.

Courses taken outside the College will be transferred in as credit, if approved by the Registrar's Office. A maximum of 12 elective credit hours (15 for transfer students) may be transferred into the program. No credit will be transferred for grades less than C. (NOTE: A letter grade of C- is considered to be less than C and will not be transferred.) Credit will not be granted for pre-calculus or calculus if taken as dual credit through high school.

## Home-Schooled/GED Students

Home-schooled students must submit a transcript of completed secondary-level coursework with a detailed description of each course. Evidence of the successful completion of science lab courses equivalent to courses required in an accredited high school for graduation must also be submitted. Evaluation of courses is on an individual basis, and the decision of the registrar is final. Home-schooled students and students submitting a GED score in lieu of high school transcripts may be required to take math, science, or English placement exams.

## Application Requirements and Deadlines

The following must be submitted by the deadlines before we can review your admission file. Applications that are incomplete at the time of review will be returned to the applicant for completion and may delay an admission decision and notification.

**1. Application Fee:** The required nonrefundable \$50 application fee (payable to St. Louis College of Pharmacy) should be attached to your signed application. A \$5 service charge will be applied if paid online.

**2. Application for Admission:** A completed application is recommended for submission as soon as possible after August. *Regular Decision file completion is due by Feb. 1*  
*Early Decision file completion is due by Dec. 15.*

**3. Personal Essay:** Your response to the essay topics found in the application guide for admission should accompany the application.

**4. Statement of Commitment:** Please review the Oath of a Pharmacist and honor code. A signed statement must be submitted with the application.

# Requirements for Admission

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**5. Official Transcript:** Submit the form included in the Application Guide or online at [www.stlcop.edu](http://www.stlcop.edu) to your high school records office. Your high school transcript should include your ACT/SAT score, cumulative GPA, and rank in the senior class.

**6. Academic Reference:** Submit the form included in the Application Guide or online at [www.stlcop.edu](http://www.stlcop.edu) to your guidance counselor for completion.

**7. Science Reference:** Submit the form included in the Application Guide or online at [www.stlcop.edu](http://www.stlcop.edu) to your science teacher for completion.

**8. Early Decision Agreement:** Only candidates applying for Early Decision must sign this agreement. Please retain the yellow copy of the agreement for your records.  
*Early Decision file completion is due by December 15.*

## Supplemental Documents

The following supplemental documents must be submitted after initial acceptance but prior to new student orientation:

**1. Final Transcript:** A final (eighth semester) transcript must be mailed immediately following your high school graduation.

**2. Health Report:** The health report form must be submitted after acceptance and prior to registration for classes at new student orientation. All health forms are kept confidential.

**3. Photograph:** A photo taken within the past six months must be submitted after acceptance and prior to registration for classes at new student orientation.

## Important Deadlines

### Early Decision Applicants

- All applicants (file completion) **December 15**  
(definition of Early Decision on [Page 10](#))

### Regular Decision Applicants

- All applicants (file completion) **February 1**  
(definition of Regular Decision on [Page 10](#))

## Tuition Deposit

### Early Decision Applicants

A \$500 nonrefundable deposit is required within 10 working days of notification of acceptance. Accepted deposit-paid applicants are guaranteed a space in the class.

### Regular Decision Applicants

A \$300 refundable deposit is requested within 10 working days of receipt of an acceptance letter. Applicants may submit a written request, within 10 working days of receipt of an acceptance letter, for an extension (until May 1) as the final date to submit a deposit. This extension will not affect the student's admission or financial aid status. However, it is important to understand that space is limited in the first-year class, and enrollment will be capped based on availability of space.

## Financial Aid Application

### All Applicants

- File a Free Application for Federal Student Aid (FAFSA)
- Schedule an appointment with the College's Financial Aid Office.

## What First-Year Students Need to Know Admission

- Only 250 first-year students (or fewer) will be admitted, so applying early is highly recommended.
- First-year acceptance is highly competitive with two to three qualified applicants for each available space.
- ALL documents required for admission must be submitted by the deadlines (no extensions or exceptions will be made).
- It is the applicant's responsibility to ensure that all documents and deposits are submitted by the deadlines.

*For a complete list of requirements and deadlines, please refer to [Page 8](#) or [www.stlcop.edu](http://www.stlcop.edu).*

## Scholarships

- Scholarships are limited and based on availability of funds, so be sure to apply early.
- Scholarship amounts are determined by ACT composite scores.
- Subsequent ACT scores (after acceptance) will be accepted for scholarship consideration up to and including the December test date score of the student's senior year. Scores from the December test date must be postmarked to the College no later than January 15.
- First-year scholarships are renewable through the third year provided the student maintains GPA requirements.

## Notebook Computers

- The College issues a notebook computer to all incoming first-year students. Please refer to [Page 27](#) for specific information.

## Parking

- First-year residents are not eligible for on-campus parking.

## Requirements for Admission

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- It is strongly recommended that first-year residents do not bring a vehicle to campus.
- First-year residents who bring a vehicle must secure their own off-campus parking.
- First-year commuters are eligible for campus parking. If parking is unavailable on campus, arrangements will be made for parking nearby (within walking distance) or with shuttle service to campus.

### Housing and Meals

- First-year students receive priority consideration for housing. Returning second-year students are considered for Residence Hall after all first-year students who want to live there have been accommodated.
- First-year residents must purchase a minimum point package for meals at Parkview Café that provides two balanced meals per day. Additional points may be purchased, but unused points will not carry over to the next school year.
- Payments for housing are as follows:
  - \$150 security deposit with application
  - \$100 room deposit with housing contract due by May 1
  - \$500 payment due by June 1
- The refund policy for housing is as follows:
  - 100% if cancelled on or before June 1
  - After June 1, \$100 is forfeited
  - After July 1, \$600 is forfeited.

### What is Early Decision?

Applicants are encouraged to apply for our Early Decision plan if you are committed to pursuing a degree in pharmacy and St. Louis College of Pharmacy is your first choice. Early Decision is the term used to describe the application process in which the College makes a binding commitment to a student for admission and the student makes a binding commitment to enroll, if admitted. Early Decision is offered as an advantage to academically accomplished candidates who are committed to pursuing a degree in pharmacy and understand the challenges of a six-year professional degree program.

The benefits of Early Decision to the student include a guaranteed place in the highly competitive first-year class, early notification of acceptance to your first-choice college, and the opportunity to attend early orientation sessions.

#### In the Early Decision plan:

- While pursuing Early Decision admission to St. Louis College of Pharmacy, students may not apply to any other Early Decision plan. Filing multiple Early Decision

- applications will automatically cancel out the student's application to St. Louis College of Pharmacy. Students who have been admitted under Early Decision admission must immediately withdraw all regular admission applications and make no subsequent applications to other institutions.
- Complete application and all required supporting documents must be postmarked no later than **December 15**. *No extensions or exceptions will be made for this deadline.*
- Decisions on acceptance will be sent no later than the middle of January.

*A \$500 nonrefundable tuition deposit is required within 10 working days of notification of acceptance.* The deposit is applied to first-semester tuition. Accepted deposit-paid applicants are guaranteed a space in the class.

If a student who applies for financial aid is not offered a package that makes attendance possible, the student may be released from the Early Decision agreement. A financial aid package may consist of all or some of the following: scholarships, grants, work study, loans and the Expected Family Contribution (EFC), as reflected on an official Student Aid Report determined by the results of the FAFSA.

Applicants not accepted for Early Decision might be eligible for unbiased consideration during the Regular Decision process. If deferred to Regular Decision, the student will be released from the Early Decision agreement. However, the College reserves the right to inform a student if he or she has not been accepted and that consideration under the Regular Decision process will not change a final decision.

### What is Regular Decision?

Students applying to St. Louis College of Pharmacy under the Regular Decision plan who meet the minimum admission requirements will be admitted based on availability of space in the first-year class. The size of the first-year class will not exceed 240 students and may be capped lower.

#### In the Regular Decision plan:

- Students applying to St. Louis College of Pharmacy may apply to other colleges without restriction.
- Complete application and all required supporting documents must be postmarked no later than **February 1**. *No extensions or exceptions will be made for this deadline.*
- Decisions on acceptance will be sent no later than the middle of March.

## Requirements for Admission

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*A \$300 refundable tuition deposit is requested within 10 business days of notification of acceptance.* This deposit may be returned to the student at any time until May 1. A written request asking for a refund, postmarked no later than May 1, is required.

Applicants may submit a written request for an extension until the final date of May 1 to submit a deposit. A written request for an extension must be submitted within 10 days after notification of acceptance. However, students are strongly encouraged to make a decision and submit the refundable deposit soon after an offer of acceptance is received.

### What is the wait list?

Applicants will be placed on a wait list for admission when the first-year class has been filled.

Admission will not be offered or denied at the time the student is placed on the wait list. However, the College will only offer a space on a wait list if there is a strong possibility that an offer of admission will be made before the admission cycle concludes.

Final status for wait list students will be determined as soon after May 1 as possible. A wait list will not extend beyond August 1.

### Transfer Students

To be considered for acceptance, transfer applicants must apply to the College using the central pharmacy application system PharmCAS ([www.pharmacas.org](http://www.pharmacas.org)). Refer to the PharmCAS Web site or the College Web site ([www.stlcop.edu](http://www.stlcop.edu)) for specific entry requirements. Applications sent directly to the College will be returned to the applicant for submission through the PharmCAS Web site. The deadline for applying to PharmCAS is February 1, or until the class is full, whichever comes first.

The College reserves the right to limit or eliminate transfer into particular grade levels based on the expected returning student population. Current students who are in good academic standing and are eligible to return are given preference for enrollment.

The College also reserves the right to require placement exams in math or science; or proof of English proficiency. The applicant will be notified if any of the above is necessary, along with scheduled dates and times for testing. The applicant also will be required to attend an on-campus interview as part of the application process.

The College requires completion of the Pharmacy College Admissions Test (PCAT) for transfer students.

#### Harcourt Assessment Inc.

PSE Customer Relations–PCAT  
19500 Bulverde Road  
San Antonio, TX 78259  
1.800.622.3231  
[www.pcatweb.info](http://www.pcatweb.info)

St. Louis College of Pharmacy reserves the right to refuse the transfer of any previously earned college credits. Each applicant's previously completed college-level coursework is evaluated on an individual basis. Factors that influence the transfer of credits include, but are not limited to, the following:

- Science or math coursework completed in the past may be deemed invalid for transfer if too much time has elapsed between completion of the credit(s) and the student's application for admission to the College. This will be determined on an individual basis.
- Coursework with less than a C will not be accepted (a C- is not acceptable).
- Credit awarded by other institutions based on Advanced Placement (AP) tests will not transfer. Official test results must be sent by the College board to St. Louis College of Pharmacy for transfer consideration.

*NOTE: Students wanting to transfer credit for physics must have completed two semesters to be equivalent to the College's required physics course.*

# Requirements for Admission

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## International Students

A U.S. Immigration and Customs Enforcement (ICE) 1-20 Form will not be issued for entry into the United States or transfer from another American institution until the applicant has fully satisfied all admission criteria and has been approved for acceptance.

The College reserves the right to require placement exams in math or science, additional verification of English proficiency and an interview. The applicant will be notified if any of the above information is deemed necessary along with scheduled dates and times for testing or an interview.

To be considered for acceptance, international applicants must submit the following documents in addition to all documents required of U.S. citizens as outlined on [Pages 8-9](#):

1. St. Louis College of Pharmacy application for admission
2. A nonrefundable application fee of \$50
3. Evidence of English proficiency by submitting a minimum score of 550 (paper test) or 220 (computer test) from the Test of English as a Foreign Language (TOEFL); St. Louis College of Pharmacy TOEFL code is 6626
4. Test results from the Pharmacy College Admission Test (PCAT)—transfer applicants only

5. Proof of financial support while attending St. Louis College of Pharmacy in the form of either:
  - a. A bank statement in the applicant's name showing deposited funds translated into U.S. currency
  - b. A notarized affidavit of support from a sponsor defining the exact amount of funds designated for the student's educational and living expenses while at the College and the period of time for which financial support is pledged (the full name, address, and phone number of the sponsor is required)
6. If currently in the United States, a copy of the student's status with the U.S. Citizenship and Immigration Service (USCIS) (i.e., 1-20, 1-94, and Visa)
7. A high school transcript (translated into English)

*NOTE: St. Louis College of Pharmacy will not accept or review foreign coursework or foreign transcript evaluation reports.*

## National Association for College Admission Counseling

St. Louis College of Pharmacy is a member of the National Association for College Admission Counseling (NACAC) and endorses the principles contained in the NACAC Statement of Principles of Good Practice.

# Academic Requirements and Policies

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## Requirements for Graduation

Candidates for the Pharm.D. degree must complete the appropriate curriculum listed in this catalog. Students must successfully pass a writing proficiency requirement and interview by the end of the pre-professional program (second year). Students also must meet a pharmacy calculations proficiency requirement by the end of the fifth year. They must be enrolled in a college of pharmacy for a minimum of four years, and complete at least 48 credits covering a period of not less than two academic years at St. Louis College of Pharmacy.

Students must have satisfactorily completed all of the required courses as well as the minimum number of credit hours in each of the specified elective areas. They must have earned a minimum cumulative 2.0 grade point average for all coursework and have completed a sequence of required professional courses with a minimum 2.0 GPA before entering the sixth year. A grade of C or better must be earned in each advanced practice experience in year six.

Finally, candidates must have paid all fees and obligations to the College, be recommended for graduation by the faculty, and be present at the commencement exercises. If fees or obligations to the College remain unpaid after the student is graduated or leaves the school, the College reserves the right to withhold applications for state board examinations and certified copies of student academic transcripts, as well as the student's diploma.

## Classes and Attendance

Each fall and spring semester lasts approximately 15 weeks. Full-time status means 12 or more credit hours must be taken in a semester. A student taking at least six, but less than 12, credit hours is classified as half time. Anyone taking less than six credit hours is classified as less than half time.

In the fall semester of their sixth year, students must take eight or more credit hours to be considered full time. A student taking four to seven credit hours is classified as half time. Anyone taking less than four credit hours is classified as less than half time.

Lecture and discussion classes typically are 50 minutes in length; laboratory periods are two or three hours in length. During the advanced practice experiences in year six, students will spend 40 or more hours per week in assigned, College-approved hospital pharmacy, community pharmacy, and other clinical practice sites.

Students who are or will be absent from classes should notify the Deans' Office and their instructors directly, by voice mail or by e-mail.

Students may add a course to their schedule within the first 10 days of the semester (first two days of summer school under normal circumstances) with permission of the instructor.

*Students cannot drop required courses that are prerequisites for courses taught in the subsequent semester, regardless of their academic performance in such courses, unless extenuating circumstances exist, and the Deans' Office has approved.*

Students may drop other courses within the first 10 days of the semester (first two days of summer school) provided that the student is in good academic standing (not on academic probation). A student may withdraw from other courses with a grade of W with permission of the instructor, the academic adviser, and the Registrar's Office, at any time prior to the middle of the 11th week of the semester, provided the student is in good academic standing (not placed on academic probation the previous semester). (The specific date will be announced at the beginning of each semester.) Courses taken during a summer session cannot be dropped if more than half of the class sessions have been held. Cases of great hardship may be referred to the Deans' Office for special consideration.

A permanent record of student progress is maintained by the Registrar's Office. Students can examine their personal records at any time during the school year.

The College encourages students to become involved in professional organizations on campus as a way to develop their leadership skills and to gain an appreciation for the role that such organizations play within the pharmacy profession. Students may be excused from classes for a maximum of three days to attend professional meetings, provided the following criteria are met:

- The student must be in good academic standing. Any student on academic probation will not be excused from classes.
- The student must have demonstrated an active involvement in the student organization and must have the approval of the organization's faculty advisor (when appropriate) to attend.
- The student must make arrangements with each of his or her instructors at least two weeks prior to the meeting to make up any course assignments or exams the student will miss while attending the professional meeting.

If a student's religious or moral convictions dictate that they observe holidays or religious events not provided for in the College's calendar, special arrangements must be made in advance with each instructor.

# Academic Requirements and Policies

## Issuance of Grades

Final course grades are available to students via the campus Web (online registration program) immediately following the end of each semester and are not available verbally to students through the Registrar's Office. Students questioning their grades should discuss the matter with the instructor as soon as possible after grades are issued. Students requesting a grade change must do so prior to the end of the next semester.

## Computation of Scholastic Standing

St. Louis College of Pharmacy uses the 4.0 grading system to determine grade point average. The GPA is calculated by multiplying the number of credit hours for a given course by the number of grade points for the letter grade received, totaling the grade points earned, and dividing that total by the number of credit hours attempted.

Grades in advanced practice experiences do enter into the final grade point average. Passing grades are indicated by the letter grades A through C. Any grade below C is indicated by the designation No Credit (NC), and the rotation must be repeated.

A grade of Incomplete (I) can be given by a faculty member if the student is unable—due to extenuating circumstances such as illness or injury—to complete all of the required coursework during the semester. An I ordinarily is not to be given to allow a student to redo coursework previously completed in an effort to improve the student's grade in the course. Incomplete grades normally must be made up no later than 10 school days following the beginning of the next semester; otherwise, the I is converted to an F.

Occasionally, a person not registered with the College or a student enrolled at the College wants to audit (AU) a course. Academic credit cannot be granted for an audited course. Individuals are permitted to audit a course only when classroom space is available. The course instructor or the deans may refuse any request to audit a course. Permission to audit a course entitles the person to attend class, but not to take exams or complete graded assignments. To have documentation that an individual audited the course or to have the audit appear on a transcript, arrangements must be made with the instructor at the beginning of the course so that attendance throughout the semester can be verified. If a student taking at least 12 credit hours of regular courses wants to audit a course, no additional tuition will be charged. Full-time students may only audit a course already taken to enhance their knowledge of the topic. Electives may not be

audited. A student wanting to audit one or more courses during the summer must pay a fee of \$50 per course. A person outside the College wanting to audit a course should contact the Business Office to determine the tuition charge.

Under no circumstances will a student be allowed to attend a class without officially registering for the course online or in the Registrar's Office. Academic credit will not be awarded if the student is not registered. It is the student's responsibility to see that he or she is properly registered for all courses being taken.

## GPA Calculations

GPA = CR hours X grade points, totaled  
and divided by CR hours attempted

Grade	Grade Points	No effect on GPA	
A	4.00	W	Withdraw
A-	3.70	P	Pass
B+	3.30	NC	No Credit
B	3.00	CR	Credit
B-	2.70	I	Incomplete
C+	2.30	AU	Audit/No Grade
C	2.00	PH	Pass with Honors
C-	1.70		
D+	1.30		
D	1.00		
D-	0.70		
F	0.00		
TG Transfer Grade	2.00		

To illustrate how to calculate a grade point average, assume a student also earned a B in a two-credit-hour course, a B- in another three-credit-hour course, and an A in another four-credit-hour course. The student's semester grade point average (GPA) would be calculated as follows:

Grade Earned	Grade Points	Number of Credits	Grade Points Earned
D+	1.30	3	3.90
C+	2.30	4	9.20
B	3.00	2	6.00
B-	2.70	3	8.10
A	4.00	4	16.00
		<b>16</b>	<b>43.20</b>

Grade Point Average (GPA)=2.70 (43.20 divided by 16)

# Academic Requirements and Policies

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## Academic Progress

In accordance with Title IV regulations, a student attending St. Louis College of Pharmacy is required to remain in good academic standing and maintain satisfactory academic progress. Students are urged to read the following information carefully to be sure they know which policies pertain to them.

It is the responsibility of a professional school to graduate well-rounded students. As part of fulfilling this responsibility, St. Louis College of Pharmacy offers liberal arts convocations. Attendance at a minimum of six liberal arts convocations is required of all first-year students. Students are expected to complete this requirement in their first year. Upper-level students are encouraged to attend the programs, which cover a broad range of subjects in the humanities and social sciences.

A separate professional GPA will be reported on the student's transcript. The required professional courses included in this GPA calculation are designated on [Pages 29-30](#). Students must have a minimum professional GPA of 2.0 (as well as a minimum cumulative GPA of 2.0) before they will be allowed to enroll in the advanced practice experience courses in year six.

For progression purposes, summer sessions are not considered to be regular academic semesters, which means summer does not count as a probation semester. However, grades earned during the summer are included in the calculation of a student's cumulative GPA, which means one can return to good academic standing as a result of summer school grades if the cumulative GPA at the end of the summer session is 2.0 or higher. One exception occurs at the end of the summer session for Year Two when the cumulative GPA must be 2.7 or higher to advance into the professional program. Unless noted otherwise in the summer school course schedule, students cannot take more than one course in each of the two summer sessions.

## Repeating Courses

When a course is retaken, the grade earned will replace the initial grade, even if that grade is lower than the initial grade. If a student repeats a required course in years 1-5, the grade received in that course must be a letter grade of C or better (not C-) or the student is subject to academic dismissal.

For students in year 6 (PY4), experiential program policies for remediation of grades below C- will apply. These policies are outlined in the Advanced Practice Experience Manual.

## For students entering first year during or after fall 2010

Students in years 1 and 2 must repeat, in the subsequent term or summer session, any course in which they receive a grade lower than C-. Students in years 3-5 may have only two grades lower than C- in required courses and, therefore, may choose or be required to repeat a course.

## Academic Requirements to Progress into Year Three (PY1)

The College's academic progression policy into year three is as follows:

- At the end of the fall and spring semester of year 1, students must have a cumulative GPA of at least 2.0.
- At the end of fall semester of year 2, students must have a cumulative GPA of at least 2.3.
- At the end of spring semester of year 2, students must have a cumulative GPA of at least 2.7.

Students not meeting these requirements will be subject to dismissal unless remediation in the subsequent semester or summer session results in the required cumulative GPA and no grades below C-.

## Non-Academic Requirements for Entry into Year Three (PY1)

In addition to successful completion of the pre-professional curriculum, students must successfully complete an in-person interview and writing assessment to ensure entry into the professional program at St. Louis College of Pharmacy. An applicant may be denied entrance into the professional program based solely upon his/her interview performance and/or poor writing assessment performance, regardless of his/her overall academic standing.

## Interview

- Students currently enrolled at STLCOOP will receive their interview schedules prior to the end of the fall semester. Interviews will be conducted during the winter break, between the fall and spring semesters. Transfer students will receive their interview schedules in March. All travel related expenses are the responsibility of the applicant.
- Students who are unable to attend their scheduled interview must contact the office of the dean of student affairs at least 2 weeks prior to the interview date. Absence due to illness or other emergency also requires immediate notification. Students who are late or absent without notifying the dean of student affairs may be disqualified from consideration for progression/admission into the professional program (PY1).

# Academic Requirements and Policies

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## Writing Assessment

Students will be required to demonstrate minimum acceptable writing proficiency prior to progression into PY1.

## Process for Evaluation of Interview and Writing Proficiency

Students will receive specific information about the interview process during the freshman orientation process and during the fall semester of second year. Students will be given an opportunity to practice their interview skills and receive feedback prior to the actual interview. Each student will be evaluated by two independent interviewers. Five categories are evaluated in these interviews (decision making, planning/organizing, continuous learning, work standards and communication). Students must pass three of the five categories to successfully complete this phase of the progression/admission process. Students' writing proficiency will be evaluated based on criteria developed by the English faculty at the College.

## Results and Consequences

Students will be notified of the results of their interviews by March 1. Students who fail the interview may contact their advisors to receive feedback provided by the interviewers. Students who fail the interview and/or the writing assessment will have an opportunity for the College's Admissions and Progressions Committee to re-evaluate their interviews/writing assessments. Students who wish for their results to be re-evaluated by the Admissions and Progressions Committee must send this request, in writing, to the Chair of the Admissions and Progressions Committee by March 15. The decision of the Admissions and Progressions committee will be final. *Failure of the interview and/or writing assessment will disqualify a student from progression into the first professional year of the program.*

## Academic Probation and Dismissal Policies

*The following academic probation and dismissal policies apply to all students who enrolled in year 1 during or after fall 2010.*

### Academic Probation

A student who is not in good academic standing will be placed on academic probation for the following reasons:

- Student receives a cumulative GPA less than 2.00 (Exceptions to this rule occur in the pre-professional program. Student's cumulative GPA must be at least 2.3 at the end of fall, year 2, and 2.7 at the end of year 2.)
- Student earns more than one grade lower than C- in any single semester in years 1 or 2.

Academic probation requires that the student's cumulative GPA at the end of the probation period (one semester) is equal to or greater than 2.0 (or 2.3 at the end of fall, year 2, and 2.7 at the end of year 2.)

### Academic Dismissal

A student will be subject to academic dismissal from the College for the following reasons:

- Student fails to meet probation requirements (if on probation from the previous semester);
- Student earns a grade less than C when repeating a required course;
- Student fails to receive a passing grade in at least 12 credit hours per semester (fall and spring) except under extenuating circumstances;
- Student earns a third grade below C- in a required course in years 3-5 (PY1-PY3);
- Student receives a cumulative GPA less than that required (2.0 at the end of year 1; 2.3 at the end of fall, year 2; 2.7 at the end of spring, year 2) for a second time in years 1 and 2;
- Student is placed on Academic Probation for a second time in years 3-5.

*The following academic probation and dismissal policies apply to all students who enrolled in year 1 prior to fall 2010.*

### Academic Probation

A student who receives a semester or cumulative GPA less than 2.0 is not in good academic standing and will be placed on academic probation.

### Academic Dismissal

A student will be subject to academic dismissal from the College for the following reasons:

- Student receives a semester or cumulative GPA less than 2.0 for a second time in years 3-6, whether in consecutive or non-consecutive semesters;
- Student fails to receive a passing grade in at least 22 credit hours (fall and spring semesters) each year they are enrolled in the College, except under extenuating circumstances.

The procedures for appealing an academic dismissal are outlined in Section III.J. of the Student Handbook.

## Coursework Taken Outside the College

All courses taken outside the College must receive prior approval through the Registrar's Office and must comply with Academic Requirements and Policies the Rules Governing Courses Taken Outside the College. A

## Academic Requirements and Policies

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Course Out form is to be signed by both the student and the Registrar and a copy is retained in the student's file. Without prior approval, there is no assurance that credit will be granted for courses taken outside the College.

Approval will not be given to take coursework outside the College if the student's schedule can be reasonably modified to accommodate enrollment in the course during the same semester, or if such work will result in less than full-time study at the College during the semester in which the course normally would have been taken.

Courses taught at the College during the summer cannot be taken outside the College during that summer if the student is retaking the course due to having received a poor grade in that course. Exceptions require approval from the Deans' Office.

Grades of a C or better from outside colleges for repeated courses will be transcribed by St. Louis College of Pharmacy as a TG (transferred grade) with the weight of C (2.0). All other courses from outside colleges will be transcribed as CR and will not affect the student's College grade point average. No credit will be transferred for grades less than C. (NOTE: A letter grade of C- is considered to be less than C and will not be transferred.)

### Requirements for State Licensure

To practice pharmacy, one must become licensed as a pharmacist. Licensure means that the candidate has successfully passed an examination and met the requirements for licensure in that state. The exam consists of two parts. Part one is a standardized computer exam known as NAPLEX (North American Pharmacist Licensure Examination). NAPLEX is administered through the state board of pharmacy and consists of questions drawn from all aspects of pharmacy. This exam is administered at specific testing centers across the country.

Part two is a test on the federal and state laws that affect pharmacy, and it also is administered at specific testing centers across the country. For information about these exams, students should contact the board of pharmacy in the state in which they plan to be licensed.

Besides the examination, most states require that the candidate be a graduate of an accredited school or college of pharmacy and complete a specific number of hours of practical experience under the supervision of a pharmacist. Since these requirements are not uniform from state to state, students should obtain information regarding examination and

practical experience requirements from the board of pharmacy in the state in which they plan to be licensed. Once licensed, the pharmacist can reciprocate this license to most states.

### Student Conduct

St. Louis College of Pharmacy students are expected to conduct themselves in a manner that will be a credit to the profession of pharmacy and to the College. Students are expected to observe the rules and regulations of the College as specified in the Student Code. Any student guilty of conduct detrimental to the best interests of the College may be expelled.

### Scholastic Honors

Each year, scholastic honors in the form of scholarships, prizes, and awards are conferred upon deserving students by St. Louis College of Pharmacy. To be eligible for these honors, the student must meet specific criteria established for individual awards. Honors conferred upon graduating students are awarded at the annual Graduate Recognition Program or during commencement. Underclassmen honors are presented at the Spring Awards Ceremony.

Students in years four through five who maintain a semester average of 3.0 or better in a regular program of 12 or more credit hours for any semester are given dean's list standing during the following semester. Students receiving a semester GPA between 3.50 and 3.74 will be on the dean's list with honors, whereas students receiving a semester GPA of 3.75 or higher will be on the dean's list with high honors.

Students in years one through three will be given dean's list standing if they receive a semester GPA of 3.50 or greater.

### Withdrawing from the College

Students who wish to withdraw from the College must receive the approval of the registrar to begin the process of withdrawing from the College. Students will be required to complete a withdrawal form. Failure to complete a withdrawal form will result in the student receiving failing grades in all courses attempted. Any exceptions to this rule will be determined by the Deans' Office. Students who have officially withdrawn from the College may only reapply through normal admissions procedures.

### Transcripts

Official and unofficial transcripts must be requested in writing and must bear the signature of the requesting student. Cost for a transcript, official or unofficial, is \$5, and transcripts will be issued only to students who are in good financial standing with

## Academic Requirements and Policies

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the College. Transcripts will be processed within three business days, five business days during grading and registration periods.

### Leave of Absence

St. Louis College of Pharmacy recognizes that there are situations when a student may require a leave of absence. If such a situation arises, a student must submit a written request to the Deans' Office. This letter must include the reason for the leave and the time period requested. The student normally will receive a letter from the Deans' Office within five business days stating approval or disapproval of the leave, and the student will then be given a reapplication deadline. Leaves normally are permitted for a maximum of one year and are issued for medical or personal reasons. Classes taken outside the College during the period of the leave will NOT be accepted in transfer. Exceptions to this policy will be determined by the Deans' Office.

A leave requested after the ninth week in a semester will be granted only if there are serious extenuating circumstances.

### Family Educational Rights & Privacy Act (FERPA)

The Family Educational Rights & Privacy Act (FERPA) is a federal law designed to protect the privacy of students' educational records.

### Parents' Rights

The rights of FERPA, originally given to parents of students in K-12, are transferred to their sons and daughters once they reach college age. According to FERPA guidelines, all rights of parents (including the right to examine education records and consent to the disclosure of personally identifiable material) transfer to the student either at age 18 or upon attendance at an institution of post-secondary education. Educational information will be released to a student's parents only with the written consent of the student. The following is the only exception FERPA allows for parents seeking information about their child:

*The parent(s) should make their request in writing, indicating the particular records requested and declaring specifically that the student is the requestor(s)'s dependent.*

St. Louis College of Pharmacy must ask for the federal income tax form filed by the parents for the most recent tax year. This means the requesting parent must provide a copy of the federal income tax form for the current year. It cannot be a tax form from several years ago. The College will then verify that the student is indeed listed as a dependent on the

tax form of the requesting parent. Once verification is made, the form will be given back to the parent and a note will be made on the request form that the verification was made.

Because the FERPA rights belong to the eligible student, the College will notify the student that his or her parents have asked to review the records and on what date the review will take place. If the student responds that he or she does not want the records shared with the parents, the College will refer the parents back to the student. At this point, a written consent is required from the student.

### Spouses' Rights

FERPA recognizes a spouse as an unrelated third party and does not make any provision for a spouse to have access to a student's educational records without the written consent of the student.

### Students' Rights

The Family Educational Rights & Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day the College receives a request for access. Students should submit to the registrar, the dean, the director of the academic division, or another appropriate official, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records if the student believes they are inaccurate or misleading.

Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a

## Academic Requirements and Policies

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hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosure of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her academic or enrollment services responsibilities. A school official is a person employed by the College in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the board of trustees; or a student serving on an official committee, such as disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

Upon request, the College discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

### **Disclosure without consent also may be made to:**

- Certain government officials in order to carry out lawful functions
- Appropriate parties in connection with financial aid to a student
- Organizations doing legitimate studies for the school accrediting agencies
- Individuals who have obtained court orders or subpoenas
- Persons who need to know in cases of health or safety emergencies
- State and local authorities to which disclosure is required by state laws

Schools also may disclose, without consent, "directory type" information unless notified to the contrary in writing by the student to the Registrar's Office. St. Louis College of Pharmacy has designated the following as directory information:

Name  
Address  
Telephone number  
Date of birth  
Enrollment status  
Dates of attendance  
(including whether currently enrolled)  
Degree awarded  
Photograph  
E-mail address

An eligible student who does not wish for "directory type" information to be released without consent must notify the Office of the Registrar within the first 10 days of the term.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by St. Louis College of Pharmacy to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

### **Family Policy Compliance Office**

U.S. Department of Education  
400 Maryland Ave., SW  
Washington, DC 20202

5. Any student may file a complaint concerning an alleged violation of the Accreditation Council for Pharmacy Accreditation Standards by submitting said complaint in writing to the Dean of Pharmacy. (See the Student Code for College policy for handling student grievances.) A student with an unresolved complaint related to accreditation standards can contact ACPE in writing at the address provided on [Page 3](#).

# Financial Matters

## Tuition and Fees

### Year One

Per semester (12-18 credit hours)	\$11,849
Per credit hour in excess of 18 credit hours	\$785
Per credit hour less than 12 credit hours	\$785
Summer session per credit hour	\$785

### Year Two

Per semester (12-18 credit hours)	\$11,700
Per credit hour in excess of 18 credit hours	\$785
Per credit hour less than 12 credit hours	\$785
Summer session per credit hour	\$785

### Years Three, Four, and Five

Per semester (12-18 credit hours)	\$12,854
Per credit hour in excess of 18 credit hours	\$860
Per credit hour less than 12 credit hours	\$860
Summer session per credit hour	\$860

### Year Six

Per semester (fall, spring, summer)	\$8,569
Rotations that need to be repeated will be charged at the credit hour rate for the semester in which it is retaken.	

**Application Fee** \$50

**Student Activity Fee—per semester** \$70

**Student Health Fee—per semester** \$50

**New Student Programs Fee (first-year students)** \$250

**New Student Programs Fee (advanced standing)** \$75

**Professional Program Fee—per semester** \$15

**Professional Liability Insurance Fee (years 3 through 6)**  
(To be determined by insurance company)

**Graduation Fee** \$400

**Student Health Insurance**  
(required if not already covered)—per year \$1,999

### Residence Hall Fee—academic year

Shared units: room \$4,975 and board: declining balance, minimum purchase of \$3,661  
Suites: room \$5,868 and board: declining balance, minimum purchase of \$2,334  
Optional \$3,661

### Residence Hall Security Deposit—per student

Academic Year (refundable) \$150

**Parking Lot Fee—per year (on campus, optional)** \$565

**Late Registration Fee** \$100

**Deferred-Payment Plan Fee** \$50

Late Fee—Deferred-Payment Plan (monthly)  
one percent per month of the unpaid balance  
Minimum charge is \$5 per month.

*NOTE: Tuition, miscellaneous fees, deposits, and housing fees are subject to change without notice.*

All College fees including tuition, fees, and Residence Hall housing are assessed by semester and are payable two weeks prior to the beginning of each semester. If these semester fees are not paid in full, a charge of \$50 will be added to defer payment of the balance through the College's deferred payment plan.

In the deferred payment plan, at least 25 percent of the total amount due for tuition, fees, and housing for each semester must be paid two weeks prior to the beginning of that semester. The balance shall be paid in three equal installments on Sept. 15, Oct. 15, and Nov. 15 for the fall semester and Feb. 15, March 15, and April 15 for the spring semester.

## Statements are Mailed on a Monthly Basis

Within 10 working days of notification of acceptance for admission, students who apply under the Early Decision plan must submit a \$500 nonrefundable deposit. Students who apply under Regular Decision are asked to submit a \$300 refundable deposit within 10 working days of notification of acceptance for admission. Please see the [Page 10](#) of the catalog for complete information on Regular Decision deposit options.

## Residence Hall Deposits

Newly accepted students will be mailed a housing application following receipt of their academic deposit. The security/damage deposit of \$150 must accompany the completed housing application. This deposit will be returned when the room is vacated, provided that no damage has been done to the room. A \$100 room deposit must accompany the signed housing contract. If written cancellation is made before June 1, the deposit is refunded.

Returning students must submit the \$100 room deposit with their completed housing contract. If cancellation in

## Financial Matters

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writing is made before June 1, the deposit is refunded. An additional \$500 nonrefundable payment is due by June 1. Failure to remit this payment by the deadline will result in room cancellation, and no refund will be made on the first payment.

### Tuition Refunds

#### Time of Withdrawal/Portion of Tuition Refunded

**Regular Semester:** Tuition and fees are refunded on a pro-rata basis. No refund after 60 percent of the semester has passed.

**Summer Session:** After the second day, the tuition and fees are refunded on a pro-rata basis. No refund after 60 percent of the session has passed.

### Payments

All housing payments are due at the beginning of each semester. Installment payments are accepted as part of the deferred payment plan. See description on [previous page](#). Students with outstanding balances will not be allowed to register for subsequent semesters. Payment of all College fees and obligations is a requirement for graduation. If fees or obligations to the College remain unpaid after the student is graduated or leaves school, the College reserves the right to withhold applications for state board examinations and certified copies of student transcripts, as well as the student's diploma.

### Tuition and Miscellaneous Fee Refunds

The application fee and the student activities fee are not refundable. The following graduated scales are used to determine refunds for students withdrawing from the College:

One hundred percent of tuition less the tuition deposit will be refunded to first-semester first-year students and first-semester transfer students only if written notice of cancellation is received by the academic dean after May 1, but prior to the first day of classes.

Any notifications of withdrawal or requests for refund must be in writing and addressed to the appropriate dean whose permission is necessary for official withdrawal and/or refund of tuition. In the absence of this approval, the student will receive F grades in all courses taken that semester.

Any appeal of the dean's decision must be submitted in writing within 15 days of the dean's written notice to the student on approval or nonapproval of the student's withdrawal. Upon receiving a request, a hearing with the dean's executive committee will be scheduled.

Tuition refunds for the semester are based on the documented last date of attendance listed on the student withdrawal form. Title IV financial aid refunds will also be calculated based upon the same last date of attendance. Weeks coincide with the first day of class. For example, weeks that begin on Wednesday would end on Tuesday.

### Residence Hall Refunds

Residence Hall contracts are for the entire academic year (two semesters) and can be cancelled ONLY in the event of termination of enrollment or marriage. Fees are assessed on a semester basis.

- Request for cancellation is to be submitted to the director of facilities operations.
- If contract cancellation is approved, a refund will be made on a pro-rata basis. No refund after 60 percent of the semester has passed.
- If payments are being made under the deferred payment plan and the refundable amount, based on the above schedule, is less than the unpaid balance, the difference is still due the College. The amount of refund will be applied to any outstanding obligation due the College before a refund check is authorized.

### Annual and Endowed Scholarships

Through the generosity of alumni, corporations, and other private donors, the College awards scholarships — separate from College-funded, merit-based institutional scholarships — each spring. To be considered for these scholarships, students must complete an online application in the fall. Students are notified at the start of the application process.

Each year, the College hosts a Scholarships and Awards Luncheon at which scholarships are awarded for the following academic year. In April 2011, 190 awards, totaling more than \$286,126 in scholarship assistance, were presented to 169 students for the 2010-11 academic year. Selection criteria for these scholarships may be based on academic achievement, but also include other qualities, such as leadership, financial need, professional attitude, community service, or employment. In each case, the donor of the scholarship helps set the criteria.

For more information about scholarships and awards, please contact the director of development in the Advancement Office.

### Financial Assistance

St. Louis College of Pharmacy offers an affordable, quality, professional education by combining the family contribution with grants, scholarships, loans, and student employment. While

## Financial Matters

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the primary responsibility for funding a college education lies with the student and his or her family, St. Louis College of Pharmacy has developed a comprehensive assistance program.

### Application

The College requires all students applying for aid to follow the procedures outlined below. This will ensure consideration for all types of assistance:

1. Complete the admission process (Incoming 1st year and transfer students only).
2. Obtain a Federal PIN for the student and parent at [www.pin.ed.gov](http://www.pin.ed.gov).
3. Complete the Free Application for Federal Student Aid (FAFSA) and request the results be sent to St. Louis College of Pharmacy. (The FAFSA application can be found at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). The St. Louis College of Pharmacy FAFSA code is 002504.)
5. To be eligible to receive federal student aid, a student must have a high school diploma or equivalent, pass an approved ability-to-benefit test, or have been home-schooled.
6. Admissions and financial aid files, including the federal verification process if selected by the Department of Education or the Office of Financial Aid, must be complete before any grants, scholarships, and/or loans can be processed.

Upon evaluating the eligibility of the student, the College will list awards on the campus-based financial aid system, Net Partner. Students will need to accept awards at <https://secure.stlcp.edu/NetPartnerStudent/>. Awards not accepted within 10 days may be forfeited.

Loans (PLUS and Private) may not appear on Net Partner based on the status of the loan application with the lender. Processing by the Office of Financial Aid does not mean the loan has been approved by the lender. The lender will send notice of approval or denial directly to the borrower (student or parent).

*Students seeking St. Louis College of Pharmacy scholarships ONLY may skip steps 2 thru 6.*

*NOTE: Federal financial aid may not be used for courses taken more than two times.*

### Important Dates

#### January

- Obtain a student and parent federal PIN to electronically sign the FAFSA at [www.pin.ed.gov](http://www.pin.ed.gov).
  - PIN will be e-mailed to you within 24 hours.
  - File a FAFSA at [www.fafsa.ed.gov](http://www.fafsa.ed.gov).
  - St. Louis College of Pharmacy federal school code is 002504.

#### February - June

- The Office of Financial Aid will package aid for students who have completed the FAFSA during the spring months and send award notifications to students' campus e-mail accounts. Aid is limited and will be awarded on a first-come, first-served basis determined by the date students' FAFSA reports are received (usually three business days following students' completion of the FAFSA). Thirty percent of students will be selected for verification by the United States Department of Education, a designation made and communicated to students and the College upon completion of the FAFSA. Before receiving any financial aid, students selected for verification must submit to the Office of Financial Aid:
  - Signed federal Verification Worksheet;
  - Signed copy of student and parent current year federal tax return (only the first two pages are required);
  - Documents confirming citizenship status (eligible non-U.S. citizens only) including:
    1. Permanent resident card;
    2. I-94 documents;
    3. Naturalization certificate;
    4. U.S. passport or Certificate of citizenship.

- Students are welcome and encouraged to meet with a financial aid representative to review the costs and available aid for the upcoming academic year. Appointments may be scheduled by calling 1.800.278.5267, ext. 8328.

### Apply for Loans

1. Apply for federal Parent PLUS and Graduate PLUS loans at [www.student.loans.gov](http://www.student.loans.gov).
  - a. First-time student borrowers will need to complete Entrance Counseling
  - b. First-time Graduate PLUS loan borrowers must complete Grad PLUS Entrance Counseling
  - c. First-time borrowers must complete Master Promissory Notes.

#### April

Missouri State Grant application deadline (application is the FAFSA) is April 1.

# Financial Matters

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## July

Review financial aid packages to make sure that all files are complete, that scholarship and loan applications have been submitted and guaranteed, and that awards have been accepted.

## August

Federal aid will be released to the school no more than 10 days prior to the first day of fall semester classes. The second half of aid and loan disbursements will be released 10 days prior to the beginning of the spring semester in January.

## September

Excess funds created by loans and/or external aid will be refunded to students in accordance with Business Office policy.

## November

Complete endowed scholarship applications online.

## Financial Aid Calculations

Federal and state aid is primarily based upon financial need. Students must apply through the FAFSA to be considered. This requires disclosures of student and family income, assets, savings, debts, family size, and any unusual circumstances affecting family finances.

The Expected Family Contribution (EFC) is calculated, per federal regulations, by the U.S. Department of Education and returned to the student (and the College) in the form of a Student Aid Report (SAR). The cost of attendance (i.e., tuition, room and board, books, supplies, personal items, travel expenses, etc.) minus the EFC, results in the Student's Unmet Need.

Cost of Attendance  
– Expected Family Contribution  
Student's Unmet Need

Students are encouraged to apply for aid as soon as possible after January 1 for the following academic year.

## Financial Assistance Packages

Only students pursuing their first undergraduate degree are eligible for federal and state grants. For financial aid purposes only, the College classifies students entering year four and above as graduate-level students. Graduate-level students are not eligible for federal or state grants or scholarships; however, they are eligible to benefit from additional resources available through the Federal Direct Loan program.

## Federal Pell Grant (funded by the federal government)

Eligibility is determined by the Expected Family Contribution (EFC) figure on the Student Aid Report (SAR) and the number of credit hours for which the student registers each semester. The student must be pursuing his or her first undergraduate degree to receive this grant.

## Federal Supplemental Educational Opportunity Grant (SEOG) (funded by the federal government)

Eligibility is determined based upon exceptional need criteria. Preference is given to Pell Grant recipients. The student must be pursuing his or her first undergraduate degree and registered as at least a half-time student to receive this grant.

## Access Missouri Grant (funded by the state of Missouri)

The student must be pursuing his or her first undergraduate degree, registered as a full-time student, demonstrate need (as determined by the state of Missouri), and reside permanently in Missouri. A cumulative GPA of 2.5 is required to renew this award. Pharmacy students at St. Louis College of Pharmacy are eligible to receive this grant for the first three years ONLY.

## Missouri Higher Education Academic Scholarship (Bright Flight) (funded by the state of Missouri)

This financial aid is awarded to students with the highest SAT or ACT scores as determined by the state of Missouri. The student must be a resident of Missouri. A cumulative GPA of 2.5 is required to renew this award. The student must be pursuing his or her first undergraduate degree. Pharmacy students at St. Louis College of Pharmacy are eligible to receive this for the first three years ONLY.

## Federal Perkins Loan (funded by the federal government)

Eligibility is determined based on exceptional need criteria. Interest and repayment are deferred as long as the student is enrolled at least half time. A signed promissory note must be on file before funds will be disbursed.

## Health Professions Loan (funded by the federal government)

Eligibility is determined based on exceptional need criteria utilizing the parent and student information. The student must be registered full time. Preference will be given to students in years one through three who have an EFC of less than 7500. Federal guidelines require recipients to provide copies of student and parent tax returns—regardless of age and dependent/independent status. A signed promissory note, self-certification form, and acknowledgement of truth in lending statements must be on file before funds

## Financial Matters

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will be disbursed. Students also are required to complete an online entrance interview each year they borrow.

### First-Year Scholarships

#### (funded by St. Louis College of Pharmacy)

These are the minimum scholarship amounts awarded to first-year students based on ACT or SAT scores. A committee will review individual student files to decide if additional merit scholarships should be awarded.

Award	Amount	Criteria
President	\$ 8,000	30+ ACT
Dean	\$ 5,500	26-29 ACT
Faculty	\$ 3,000	23-25 ACT

- First-year scholarship amounts are determined by ACT composite scores
- Subsequent ACT scores (after acceptance) will be accepted for scholarship consideration up to and including the December test date score of the student's senior year. Scores from the December test date must be submitted to the College postmarked no later than January 15.
- Students are eligible to renew first-year awards for years two and three. Renewal criteria are:
  - **Year level one (renewing awards for grade level two):**  
Students must achieve a GPA of 3.0 or higher in their initial fall semester and remain in good academic standing (as defined by the Registrar's Office) for their initial spring semester.

#### **Year level two (renewing awards for grade level three):**

First Priority: students who renewed their awards for year two and achieve a cumulative GPA of 3.0 or higher at the end of their second year fall semester.

Second Priority: awards are renewed in descending order of fall semester cumulative GPA's based on availability of funds.

### High Proficiency Scholarship (funded by St. Louis College of Pharmacy)

High Proficiency scholarships are awarded to full-time returning students in years four through six. Beginning with the student's third year, the cumulative GPA calculated after the fall semester will be used for awards to be received in the following academic year. Award qualification is a cumulative GPA of 3.2 or higher at the end of the fall semester.

### Student Ambassadors

Student ambassadors are selected to represent the College as student admission representatives. The criteria include previous participation as a volunteer at Enrollment Services events (i.e., open house, etc.) Each award is in the amount of \$500 per semester (\$1,000 for the academic year).

In order to receive this award, each student must fulfill the requirements outlined in the contract and be in good academic standing. In the event that all requirements are not met each semester, the student understands that the scholarship will be revoked and the \$500 semester award removed from the student's account.

### SNPhA Scholarship

The St. Louis College of Pharmacy SNPhA Scholarship is awarded to outstanding students for their dedication and contribution to the College's minority recruitment program. Each award is in the amount of \$500 per semester (\$1,000 for the academic year).

In order to receive this award, each student must fulfill the requirements outlined in the contract and be in good academic standing. In the event that all requirements are not met each semester, the student understands that the scholarship will be revoked and the \$500 semester award removed from the student's account.

### Athletic Scholarships

Student athletes may be eligible to receive institutional scholarships for participating in College athletics. Scholarship recipients and amounts will be determined by the Athletics Department.

### Federal Direct Loan (federally funded)

Subsidized Federal Direct Loan eligibility is determined on the basis of need. The government subsidizes these loans by paying the interest while the student is in school.

Unsubsidized Federal Direct Loan eligibility is determined by the cost of education and available resources. Interest may be accrued or paid, but it is the student's responsibility. The student must be registered at least half-time to be eligible.

### Federal Direct parent & graduate PLUS Loan (federally funded)

Parent PLUS loans are originated by parents or stepparents of eligible dependent children. Graduate PLUS loans are

## Financial Matters

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originated by graduate level students. Eligibility is determined on the basis of the cost of education, available resources, and borrower's credit history. Students must be registered at least half-time. Only parents or stepparents of dependent, undergraduate-level students may apply for parent PLUS Loans.

### **Students are eligible to borrow under the Direct Loan Program as follows:**

#### **Undergraduate Levels**

##### **Year One**

Dependent Eligibility \$3,500 Subsidized + \$2,000 Unsubsidized

Independent Eligibility \$3,500 Subsidized + \$6,000 Unsubsidized

##### **Year Two**

Dependent Eligibility \$4,500 Subsidized + \$2,000 Unsubsidized

Independent Eligibility \$4,500 Subsidized + \$6,000 Unsubsidized

##### **Year Three**

Dependent Eligibility \$5,500 Subsidized + \$2,000 Unsubsidized

Independent Eligibility \$5,500 Subsidized + \$7,000 Unsubsidized

#### **Graduate Levels**

##### **Year Four \*\***

Graduate Eligibility \$8,500 Subsidized + \$12,000 Unsubsidized + \$12,500 \*Additional Unsubsidized

##### **Year Five \*\***

Graduate Eligibility \$8,500 Subsidized + \$12,000 Unsubsidized + \$12,500 \*Additional Unsubsidized

##### **Year Six**

Graduate Eligibility \$8,500 Subsidized + \$12,000 Unsubsidized + \$16,667 \*Additional Unsubsidized

Sixth-year disbursements are issued in thirds. Federal regulations require students attend class (i.e., rotations) when disbursements are made. A disbursement will be delayed if a student has an off-rotation scheduled during the regular disbursement date.

*\*Additional unsubsidized Direct Loan eligibility requires full-time enrollment as determined by the Registrar.*

*\*\* Additional unsubsidized Direct Loan eligibility of \$12,500 is based on a 9-month enrollment period. Students enrolled in additional months will increase their additional unsubsidized eligibility by \$1,389/month.*

**Undergraduate** dependent students can borrow a maximum of \$31,000 while independent students can borrow a maximum of \$57,500, of which up to \$23,000 may be subsidized loans.

**Graduate** students can borrow a maximum of \$224,000 (combined graduate and undergraduate) of which a maximum of \$65,500 can be subsidized.

A student is classified as dependent or independent by the Department of Education based on information provided on the FAFSA.

*Students reaching graduate level are not eligible for federal and state grant or scholarship assistance.*

#### **Private Loan (funded by private lenders)**

Eligibility criteria and interest rates vary from lender to lender. Private loans must be pre-approved by the lender prior to the College certifying the loan.

#### **Federal Workstudy (funded by the federal government)**

Eligibility is based on need. Students awarded under this program earn the funds as they work part time. The funds earned, less taxes, are paid directly to the student.

#### **Institutional Aid**

##### **(funded by St. Louis College of Pharmacy)**

Eligibility requirements vary among awards, but are generally based on need and/or academic standing.

#### **External Aid (funding by external sources—i.e., employers, scholarship foundations, local businesses, etc.)**

Eligibility requirements will vary and are established by the entity making the award. Students are required to report all sources of aid to the Office of Financial Aid regardless of aid type (grant or loan). Aid must be reported even if the benefits are paid directly to the student.

#### **Annual and Endowed Scholarships**

##### **(funded by various sources)**

Eligibility is established by the donor. A complete list of these scholarships is available on the College Web site.

# Financial Matters

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## Special Circumstances

If a student has special circumstances or the financial situation has changed since completing the Free Application for Federal Student Aid (FAFSA), the student should contact the Office of Financial Aid for additional information and instruction.

## Disbursement of Aid

Pell, SEOG, Perkins Loans, Health Profession Loans, and institutional aid will automatically be credited to the student's account.

The following is a list of awards that are not automatically credited to the student's account: federal workstudy, federal Direct Loans, PLUS Loans, private loans, Missouri state grants, and external aid where funds must be disbursed to St. Louis College of Pharmacy. These awards are applied to students' accounts upon receipt of funding. Disbursements requiring student/parent signatures will be applied upon receipt of signatures. Federal workstudy is paid directly to the student, less taxes, as he or she earns the wages.

Financial aid is first applied to tuition and fee charges, then to on-campus room and board expenses. Institutional aid will not exceed these charges. If a student receives additional external aid (scholarships or loans) that exceeds these charges, the student should complete and submit a refund request directly to the Business Office. Refunds will be issued to the student based upon Business Office policy. Financial aid cannot exceed cost of attendance as defined earlier in this catalog.

The Business Office will not be notified of awards received until the student accepts the award(s) online at: <https://secure.stlcop.edu/NetPartnerStudent/>. PLUS and private loans listed on PowerFAIDS are not official until a notice of guarantee is received from the lender.

## Award Conditions

St. Louis College of Pharmacy may adjust financial aid to reflect changes to the student's personal or financial circumstances, registration changes, or new resources available. If a change in the aid package is required, the Office of Financial Aid will send a revised award notice to the student.

The student's award offer is based upon the number of credit hours indicated on the St. Louis College of Pharmacy application for financial aid. **It is the student's responsibility to notify the Office of Financial Aid immediately of any changes in registration, marital status, housing arrangements, or any EXTERNAL AWARDS.**

Federal tax returns must be submitted upon request in order to comply with federal regulations. If the actual IRS data is significantly different from that reported on the aid application, the Office of Financial Aid will revise the award offer accordingly. Copies of federal tax returns must be signed.

Awards from government and private sources are dependent upon receipt of funds from the appropriate agencies. The student is responsible for any re-application process needed to continue receipt of these funds. The College will not replace funds lost due to nonrenewal of applications. Awards in the financial aid package may vary from year to year depending on financial circumstances and availability of funds.

### **Eligibility for all federal aid requires students to meet the following criteria:**

- the student is a U.S. citizen or eligible noncitizen
- the student does not owe a refund on any federal grant or loan
- the student is not in default on any federal loan or has made satisfactory arrangements to repay any defaulted student loan
- the student has not borrowed in excess of the federal loan limits, under Title IV programs, at any institution
- must have resolved any drug conviction issues
- male students receiving federal assistance must certify selective service registration status
- Students must maintain satisfactory academic progress as outlined in the academic requirements and policies of this catalog

# Notebook Computers

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St. Louis College of Pharmacy issues a notebook computer to all incoming first-year students. At the end of three years, the notebooks are replaced with new models for students to use during the final three years at the College. While incidental personal use is permitted, students must be aware of appropriate use policies and be sensitive to the fact that these are campus community resources.

The student has the right to use it, but the notebook computer remains the property of St. Louis College of Pharmacy. The student is ultimately responsible for the care and safety of the notebook. If it is damaged or stolen, the student must follow established procedures. When it is turned in, it needs to be in acceptable condition.

Students should be familiar with the operation of the notebook, and always contact the appropriate people when problems or questions arise. Students may purchase additional accessories and peripherals for the notebook, but these must be limited to external components only. Internal components may not be upgraded or replaced by students. Students should ask a St. Louis College of Pharmacy help desk technician if they are unsure about any additions to the notebook.

## **Each student will:**

- Sign an acceptable use policy and a responsibility agreement upon receipt of the computer.
- Be responsible for all policies and procedures as described in the acceptable use policy, responsibility agreement, and the St. Louis College of Pharmacy notebook guide.
- Use the computer ethically and legally to enhance the educational experience.

- Be responsible for the care of the computer.
- Return the computer immediately if his or her enrollment is terminated for any reason.
- Comply with all applicable copyright and licensing laws and regulations when gathering and/or sharing information using this computer.
- Adhere to the software license agreements for all applications installed on the computer.
- Not sell, lease, loan, or otherwise grant anyone else use of the computer.
- Not disassemble or open the computer to access the internal components for any reason. Only St. Louis College of Pharmacy or Fujitsu Notebook technicians are authorized to do so.
- Promptly inform St. Louis College of Pharmacy in the case of theft, follow all applicable reporting procedures, and take responsibility for any replacement costs. Students are required to provide the College with a police report.
- Promptly bring the computer to the shop if damaged and pay for any incurred cost.
- Limit upgrades and additions to external peripherals only and not upgrade or replace any internal components.
- Back up data regularly as outlined in the training materials and understand that the College is not responsible for any loss of data.
- Return the complete computer in good working condition at the end of three years of use.

For additional information, please call the St. Louis College of Pharmacy help desk at 314.367.8700, ext. 5555.

# St. Louis College of Pharmacy Curricula

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St. Louis College of Pharmacy is committed to excellence in the academic program we offer our students to prepare for a career in pharmacy. The Doctor of Pharmacy (Pharm. D.) curriculum is a six-year professional program, which consists of 208 semester hours of study—155 hours of required coursework, 21 hours of elective coursework, and 32 hours of advanced practice experiences during the sixth year. Coursework in the third, fourth, and fifth year includes introductory practice experiences that expose students to various practice settings and teach the basic skills of pharmaceutical care. Throughout the program, career information is available to help students choose a professional practice setting or scientific career in pharmacy that is consistent with their interests and skills.

Extensive studies in biological and physical sciences provide the foundation for learning and understanding the pharmaceutical and clinical sciences, which are central to learning and understanding the properties of drugs and their medicinal effects. The curriculum also integrates the arts and sciences. As students learn to appreciate the complexity of the world around them, they develop an appreciation for self, life, and culture, as well as empathy and compassion for the needs of others. The combination of a liberal arts education with a pharmacy education helps our students develop communication, decision-making, and critical thinking skills while learning how to practice pharmacy.

The College curriculum focuses on preparing students to provide pharmaceutical care in any practice setting. The term “pharmaceutical care” refers to a pharmacist’s responsibilities to the patient for positive drug therapy outcomes. This standard of practice involves the prevention, identification, and resolution of drug-related problems such as untreated indications or diseases; drug use without an indication; improper drug selection; sub-therapeutic dosages or overdose; failure to receive drugs in a timely manner; and adverse drug interactions and drug reactions.

The Pharm.D. curriculum places a strong emphasis on therapeutic topics and offers students introductory and advanced practice experiences in a variety of practice settings. During the advanced practice experiences, students will complete rotations in community and health system pharmacy practice, as well as one ambulatory care rotation, one general medicine rotation, a patient care elective, and two elective rotations.

In addition, fourth-, fifth-, and sixth-year students who demonstrate a strong interest in science research can apply for 10- to 14-week summer fellowships in many of the laboratories at Washington University School of Medicine. Students can extend their appointment beyond the summer with consent of the College and the specific laboratory’s principal investigator.

The College offers more than 70 elective courses in more than 20 disciplines, although elective offerings change each year to provide students with a variety of options. Pharm.D. graduates must complete a minimum of 12 semester hours of liberal arts electives. Three or more semester hours of the liberal arts electives must involve the study of literature and three must be American politics, state policy and politics, or economics. Electives meeting the liberal arts requirement have a course number with a second digit of 2, 3, 4, or 5.

Pharm.D. graduates are required to have a minimum of nine semester hours of other electives, and those electives must include two “writing emphasis” courses, at least one of which is a professional writing emphasis elective. Writing emphasis electives require a minimum of 20 pages (more than 5,000 words) of writing involving at least three separate papers, two of which are to be revised after review by the course instructor and perhaps peers as well. The writing emphasis course is an instructional tool often employed to promote higher order thinking skills, enabling the student to better master course content. Courses meeting the professional elective requirements have a course number with a second digit of 7.

Prior to the start of the experiential curriculum in year three, students must complete all health and background check requirements. Each student must provide proof of MMR immunizations/immunity, varicella immunity, and Hepatitis B immunizations and complete an annual PPD test. A negative urine drug screening and criminal background check is required prior to each year in which experiential activity occurs. The College will perform the required background checks, after receiving student authorization, and transfer associated costs to student accounts.

All students in years three through six must maintain a current Missouri pharmacy intern license throughout the introductory and advanced practice experiences. Students completing an introductory or advanced practice experience in Illinois must have an Illinois pharmacy technician license. Students completing experiences in other states are required to possess appropriate pharmacy licensure for that state.

Students must hold a current adult CPR (cardiopulmonary resuscitation) certification prior to beginning any of their advanced practice experiences. Certification classes are periodically held on campus, but students can complete a certification program anywhere and submit proof of certification to the Office of Experiential Programs prior to the start of their advanced practice experiences in year six.

# St. Louis College of Pharmacy Curricula

YEAR 1				
(Scenario 1)				
<b>Semester 1</b>			<b>Semester 2</b>	
EN 1001:	Composition	3	EN 1022:	Critical Thinking and Writing
CH 1001:	General Chemistry (lab)	4	CH 1002:	General and Analytical Chemistry (lab)
SS 1100:	STLCOP Orientation	1	MA 1100:	Calculus/Elective
MA 1100:	Calculus/	3	AP 2110	Human Anatomy (lab)
MA 1600:	Pre-Calculus		SS 2110:	Psychology/
BI 1100:	Biology (lab)	5	SS1100:	Sociology
<b>Total Semester Hours</b>		<b>16</b>	<b>Total Semester Hours</b>	
			<b>17</b>	
(Scenario 2)				
<b>Semester 1</b>			<b>Semester 2</b>	
EN 1001:	Composition	3	EN 1022:	Critical Thinking and Writing
CH 1001:	General Chemistry (lab)	4	CH 1002:	General and Analytical Chemistry (lab)
SS 1100:	STLCOP Orientation	1	MA 1100:	Calculus/Elective
MA 1100:	Calculus/	3	AP 2110	Biology (lab)
MA 1600:	Pre-Calculus		SS 2110:	Psychology/
BI 1100:	Psychology/	3	SS1100:	Sociology
SS 1110:	Sociology			
	Elective	3		
<b>Total Semester Hours</b>		<b>17</b>	<b>Total Semester Hours</b>	
			<b>18</b>	
YEAR 2				
<b>Semester 3</b>			<b>Semester 4</b>	
CH 2001:	Organic Chemistry I (lab)	4	CH 2002:	Organic Chemistry II (lab)
AP 2110:	Human Anatomy (lab)	4	AP 2100:	Physiology (lab)
HU 2001:	Cultural Heritage I	3	HU 2002:	Cultural Heritage II
PY 2100:	Physics ( <b>lab</b> )	4	PP 2120:	Intro to Pharm Care:
PH 2110:	Intro to Pharmacy Practice (lab) <b>OR</b>	2	PH 2110:	Introduction to Pharmacy Practice (lab) <b>OR</b>
	Psychology/Sociology	3		Psychology/Sociology
<b>Total Semester Hours</b>		<b>17-18</b>	<b>Total Semester Hours</b>	
			<b>16-17</b>	
YEAR 3				
<b>Semester 5</b>			<b>Semester 6</b>	
AP 3100:	Advanced Physiology with Clinical Correlates (lab)*	5	PP 3110:	Pathophysiology*
CH 3100:	Biochemistry <b>OR</b>		PH 3100:	Pharmaceutics (lab)*
MI 3100:	Microbiology (lab)*	4	CH 3100:	Biochemistry* <b>OR</b>
EN 3100:	Professional Communication <b>OR</b>	3	MI 3100:	Microbiology (lab)*
	Elective	3	EN 3100:	Professional Communication* <b>OR</b>
PP 3150:	Introductory Practice Experience: Foundations of Pharmacy Practice** OR	1		Elective
	ELECTIVE	3	PP 3150:	Introductory Practice Experience: Foundations of Pharmacy Practice** and
				1
<i>[Transfer students must take PH 2110*.]</i>			<i>[Transfer students must take PP 2120*.]</i>	
<b>Total Semester Hours</b>		<b>13-16</b>	<b>Total Semester Hours</b>	
			<b>17-18</b>	
SUMMER				
PP 4140:	Introductory Practice Experience: Safe Medication Practices-Community Pharmacy			3
<b>Total Hours</b>				<b>3</b>

# Doctor of Pharmacy Curriculum

Year 4			
<b>Semester 7</b>		<b>Semester 8</b>	
TH 4100: Therapeutics I*	4	TH 4120: Therapeutics II*	4
CH 4100: Pharmacodynamics and Drug Action: Molecular Mechanisms I*	4	CH 4120: Pharmacodynamics and Drug Action: Molecular Mechanisms II*	3
PC 4100: Pharmacodynamics and Drug Action: Pharmacology I*	4	PC 4120: Pharmacodynamics and Drug Action: Pharmacology II*	4
BI 4100: Molecular Biology*	2	PH 4110: Pharmacokinetics*	2
PH 4100: Biopharmaceutics*	2	PP 4170: Introductory Pharmacy Experience: Clinical Prevention and Population Health***	1
PP 4170: Introductory Pharmacy Experience: Clinical Prevention and Population Health***	0	ELECTIVE 3	
<b>Total Semester Hours</b>	<b>16</b>	<b>Total Semester Hours</b>	<b>17</b>
SUMMER			
PP 5155: Introductory Practice Experience: Safe Medication Practices-Hospital Pharmacy			3
<b>Total Hours</b>			<b>3</b>
Year 5			
<b>Semester 9</b>		<b>Semester 10</b>	
TH 5100: Therapeutics III*	4	TH 5120: Therapeutics IV*	4
PP 5160: Disease State Management I: Clinical Epidemiology*	2	PP 5170: Disease State Management II: Evidence-Based Medicine*	2
PP 5180: Advanced Pharmacy Practice & Lab*	4	PA 5120: Health Systems Management: Economic Aspects*	4
PA 5130: Health Systems Management: Social Aspects* <b>OR</b>		PA 5130: Health Systems Management: Social Aspects* <b>OR</b>	
PA 5140: Pharmacy Law & Ethics*	3	PA 5140: Pharmacy Law & Ethics*	3
MA 5100: Biostatistics/Literature Evaluation* <b>OR</b>	4	MA 5100: Biostatistics/Literature Evaluation* <b>OR</b>	4
Elective	3	Elective	3
PP 5156: Introductory Practice Experience: Interprofessional Patient Care*** and	0	PP 5156: Introductory Practice Experience: Interprofessional Patient Care*** and	1
<b>Total Semester Hours</b>	<b>16-17</b>	<b>Total Semester Hours</b>	<b>17-18</b>
Year 6			
<b>Semesters 11 and 12</b>		PP 6165: Advanced Practice Experience: Acute Care/General Medicine	4
PP 6115: Advanced Practice Experience: Ambulatory Care	4	PP 6161: Advanced Practice Experience: Patient Care Selective	4
PP 6125: Advanced Practice Experience: Community Care	4	PP 6196: Advanced Practice Experience: Elective I	4
PP 6162: Advanced Practice Experience: Health System Management	4	PP 6197: Advanced Practice Experience: Elective II	4
		PP 6198: Advanced Practice Experience: Elective III	4
		PP 6109: Pharmacy Practice Seminar	1
		<b>Total Semester Hours</b>	<b>33</b>

\*Required professional courses; a separate professional GPA is calculated for these courses.

\*\*Students may take in either fall or spring semester

\*\*\*Must complete both semesters to earn 1 credit hour

- This curriculum supersedes all previous curricula and must be completed by first-year students entering St. Louis College of Pharmacy on or after the fall semester of 2000.
- Certification in adult CPR and passing the pharmacy calculations proficiency exam are required prior to participation in advanced practice experiences.

- Students are required to take a minimum of 12 semester hours of liberal arts electives, including three semester hours of literature and three semester hours of social studies in American politics, state policy and politics, or economics.
- Students are required to have a minimum of nine semester hours of other electives and those electives must include two writing emphasis courses, at least one which is a professional writing emphasis elective (writing emphasis courses are taken in years 3-5).
- This curriculum requires 33 semester hours of courses in the liberal arts.

# Pharm.D. Course Descriptions

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## Changes in Degree Requirements

The College reserves the right to make additions or changes, as necessary, to the professional curriculum to better meet accreditation guidelines or reflect continuous quality improvement. Students who remain in good academic standing will graduate under the curriculum in place at the time of their entry into the professional curriculum, with the exception that course topics, sequences or credit hours may be modified. However, the total credit hour requirement required for graduation will not change and no retroactive requirements for courses completed will be made. Students who do not remain in good academic standing, and who repeat courses or curricular segments may be behind a year or more, and if so will be considered as part of that subsequent entering class. As such they will be required to complete the curriculum in effect for that class.

## Course Numbers

The first number indicates the program year in which the course is offered. Generally, students may NOT take a course numbered above their year level within the curriculum. The second number indicates the following: 0 and 1 are required courses; 2 literature; 3 fine arts; 4 history or philosophy; 5 social studies; 6 general electives; 7 and 8 professional electives.

## COMMUNICATION

### EN 1001 Composition (3 Cr.)

A reading and writing course to help students: 1) comprehend and summarize what they read; and 2) organize and clearly communicate their own ideas. Included is a review of grammar and mechanics. The various phases of writing instruction are integrated with training in computer basics and word processing.

### EN 1022 Critical Thinking and Writing (3 Cr.)

A continuation in writing instruction with emphasis on developing skills in evaluating arguments, synthesizing ideas, and adapting communication to particular audiences. Library and computer instruction helps students locate and process research information. Writing assignments include critiques, syntheses, persuasive essays, and research papers. (Prerequisite: EN 1001)

### EN 2300 Creative Writing (3 Cr.)

Creative Writing has a dual goal: Students learn about and can articulate aspects of the process of creative writing, and students also produce creative products. It is a multi-genre course designed to help students improve their creative writing skills in areas of interest to them. Liberal Arts elective. (Prerequisites: EN 1022 and any literature course)

### EN 2600 Professional Writing for Pharmacists (2 Cr.)

This course familiarizes students with the types of professional writing they may use in their careers, especially the résumé, the business letter, the memo, patient reports, news articles, and journal writing. The course seeks to improve general writing skills; students work together creating and revising. Two hours a week of lecture and workshop meetings. General elective. (Prerequisites: EN 1001 and EN 1022)

### EN 3100 Professional Communication (3 Cr.)

This course covers the principles and practices of interpersonal communication and public speaking, with special emphasis on skills needed in the provision of pharmaceutical care including: gathering information from patients; instructing them on their medications and working to improve their compliance; and relating effectively to other health professionals. Teaching methods include lectures, discussions, and workshops.

### SL 1600 Spanish I (3 Cr.)

A one-semester Spanish course that emphasizes oral communication in a variety of topics at a basic level for pharmacists. No previous knowledge of the Spanish language is required.

### SL 1610 Spanish II (3 Cr.)

A continuation of SL 1600. (Prerequisite: SL 1600)

### WE 3725 Advanced Health Communication (3 Cr.)

This course provides an overview of the field of health communication and its use as a tool in improving individual, community, and global health outcomes. Topics include conceptions of health and illness, interpersonal communication and care, social support and emotion in health care, community mobilization, public relations and public advocacy. Professional elective. Writing Emphasis elective. (Prerequisites: EN3100)

## LITERATURE

### EN 2200 Literary Genres: Drama (3 Cr.)

A genre study of the elements of drama in which students learn to interpret and appreciate plays. Students also are encouraged to use literature to come to a better understanding of themselves and of human values. The course involves lectures, discussion, play viewing, readings, and writing assignments. Liberal Arts elective. (Prerequisite: EN 1022)

## Pharm.D. Course Descriptions

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### **EN 2210 Literary Genres: Fiction (3 Cr.)**

A genre study of the elements of fiction in which students learn to interpret and appreciate novels and short stories. Students also are encouraged to use literature to come to a better understanding of themselves and of human values. The course includes lectures, discussion, readings, and writing assignments. Liberal Arts elective. (Prerequisite: EN 1022)

### **EN 2220 Literary Genres: Poetry (3 Cr.)**

A genre study of the elements of poetry in which students learn to interpret and appreciate poems. Students also are encouraged to use literature to come to a better understanding of themselves and of human values. The course includes lectures, discussion, readings, and writing assignments. Liberal Arts elective. (Prerequisite: EN 1022)

### **EN 2230 Masterpieces in American Literature (3 Cr.)**

A survey of representative American literary works from Puritan times to the present. Through lectures, discussion, and reading and writing assignments, students learn about the major trends and themes in American literature. Liberal Arts elective. (Prerequisite: EN 1022)

### **EN 2240 Masterpieces in British Literature (3 Cr.)**

A survey of selected English literary masterpieces, including poetry, fiction, and plays. An emphasis on thematic considerations encourages students to explore human values and the human condition. The course includes lectures, discussion, readings, and writing assignments. Liberal Arts elective. (Prerequisite: EN 1022)

### **EN 2250 Masterpieces in World Literature (3 Cr.)**

Selections of world literature other than American and British are analyzed to broaden the students' understanding of other cultures and to promote a better understanding of themselves. Teaching methods include lectures, discussion, readings, and writing assignments. Liberal Arts elective. (Prerequisite: EN 1022)

### **EN 2310 The Craft of Fiction**

This course provides specific instruction in writing fictional short stories and novels, enabling students to recognize effective use of the craft of fiction in the books they read and the films they view so that they may improve their use of fiction craft in their own writing. The course recognizes the value of multiple approaches to learning and delivers course content utilizing the four major ways students learn: reading/writing, hearing, visualizing and experiencing. Students will learn the art and craft of fiction by studying techniques used by successful authors, viewing the examples of successful films, practicing craft in focused exercises and critiquing the work of their peers. Liberal arts elective. (Prerequisite: EN 1001)

### **WE 3200 Shakespeare (3 Cr.)**

Study of selected plays (histories, comedies, and tragedies) and of some critical approaches to Shakespeare. Frequent writing assignments require students to analyze plays closely, develop insights, organize their ideas, and communicate clearly in writing. Writing emphasis elective. Liberal Arts elective. (Prerequisite: A lower-level literature course)

## **HUMANITIES**

### **HU 2001 Cultural Heritage I (3 Cr.)**

An interdisciplinary course that integrates the insights of history, political science, sociology, literature, and the arts as a means of understanding civilization and culture in the Western world. Students see how Western culture interrelates with other cultures and gain an appreciation of global diversity. They also analyze the development of Western culture and reflect upon its possible future directions. This chronological/thematic study of Western culture and values includes issues such as family life, education, science, religion, and women's roles. Writing and thinking skills are emphasized. (Prerequisite: EN 1022 or equivalent)

### **HU 2002 Cultural Heritage II (3 Cr.)**

The second-semester continuation of HU 2001. (Prerequisite: HU 2001)

### **IR 2600 Elements of Photography (2 Cr.)**

Students receive an overall understanding of digital photography. The course's subject matter will include: controlling the functions of a digital camera, composition, lighting, printing, and manipulation of electronic images. A history of photography will also be covered. General elective.

## Pharm.D. Course Descriptions

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### **WE 2400 Basic Problems in Philosophy (3 Cr.)**

Through lectures, discussions, and collaborative learning strategies, students are encouraged to understand and analyze basic issues in logic, metaphysics, epistemology, and ethics. Writing emphasis elective. Liberal Arts elective.

### **WE 3420 World Religions (3 Cr.)**

An introduction to the major world religions as well as basic religious values and beliefs of Africans, Asians, and Native Americans. Comparing these with their own, students better understand themselves, their beliefs, and their values. Writing emphasis elective. Liberal Arts elective. (Prerequisite: concurrent registration in or completion of HU 2002)

### **WE 3540 History of Medicine and Pharmacy (3 Cr.)**

Traces humanity's search for health and well-being from prehistoric times to the present, especially the evolution of medicine and pharmacy. The course covers themes that highlight the social, scientific, and economic development of medicine and pharmacy with an emphasis on the evolution of the American health care system. Writing emphasis elective. Liberal Arts elective.

### **WE 3760 Intercultural Communications in Health Care (3 Cr.)**

This course introduces students to ways that culture can affect health care beliefs and practices. Students will gain theoretical and practical tools for communicating with patients and health care providers from diverse cultural backgrounds. Writing emphasis elective. Professional elective. (Prerequisite: EN 3100 or permission of instructor)

### **WE 3580 History of Mental Illness: Causes, Cures & Confinement Antiquity to De-Institutionalization (3 Cr.)**

This course examines mental illness in historical context from antiquity through institutional decommissioning in late-twentieth century America and traces the salient and variable features of mental illness as it was constructed through each of these periods. Primary sources will include medical manuals, legal documents, religious texts, works of literature, art and architecture, as well as the diaries of those who cared for the mentally ill and, in rare cases, the accounts of the mentally ill themselves. These primary sources will be augmented by secondary sources from acclaimed scholars in early modern and modern history, the history of medicine, cultural studies, gender studies, philosophy, and religious studies. The course pays close attention to the

diagnosis and treatment of mental illness, the experiences of the mentally ill, and the responses to mental illness in society and culture. Writing emphasis elective. Liberal arts elective. (Prerequisites: EN1001, EN1022, HU2001 & HU2002)

### **WE 3600 Science and Media (3 Cr.)**

An investigation of the nature of the scientific discipline and of its representation to the general public through the media. Writing emphasis elective. General elective. (Prerequisites: EN 1001 and EN 1022)

### **WE 3750 The Global Pharmacist (3 Cr.)**

This interdisciplinary course takes a holistic approach to the human experiences of embodiment, suffering, and healing across historical periods, diverse cultures, and through the life cycle. Students will become familiar with the biomedical model, which is rooted in modern western biomedical science and practice, and the biocultural model, which comprises the multiple cultural, social, economic, and individual forces that shape the culture of healing in and beyond official medicine.

## **FINE ARTS**

### **FA 1301-1306 The Royal Chorale (0.5 Cr. per semester, a maximum of 3 Cr. may be applied to degree requirements)**

A performing and touring chorale. Fall semester, expect up to 2.5 hours of rehearsal per week. Spring semester, expect about 1.5 hours of rehearsal per week. A number of performances (up to five) are given each semester. (Prerequisites: Normally, the student will be expected to have previous group singing experience. An audition might also be requested. Permission of director.)

### **FA 2310 Introduction to Art Appreciation (3 Cr.)**

A survey of the visual arts from the ancient Greeks to the present, with primary emphasis on painting styles and trends of the past 600 years. Using slides and videos, students with no prior background learn to recognize art periods and artists through critical analysis and classroom participation, as well as to expand the scope of their personal tastes. Liberal Arts elective.

### **FA 2320 Introduction to Music Appreciation (3 Cr.)**

A chronological approach to both vocal and instrumental music beginning with the Greeks and moving through the 20th century. Students learn about the major composers, but there is heavy emphasis on listening as well as critical analysis to enable even the beginner to enjoy and appreciate fine music. Liberal Arts elective.

## Pharm.D. Course Descriptions

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### **FA 2330 Introduction to Theatre and Film (3 Cr.)**

The course introduces students to the world of theatre: types of stages, works of playwrights, producers, directors, actors, costume designers, scenery, and lighting. Students can act, direct, and/or design, if they wish. Looks at origin and development of moving pictures and analyzes styles of notable actors, directors, and films. Students see a live play, plays on video, and films for analysis, appreciation, and enjoyment. Teaching methods include discussion, lecture, and activities. Liberal Arts elective.

### **WE 2335 The Art of Film**

An introduction to basic techniques of film production and formal methodologies for analyzing film art. Students will learn the essential components of film language — staging, camera placement, camera movement, editing, lighting, special effects, film stock, lenses — to heighten perceptual skills in viewing films and increase critical understanding of the ways films function as visual discourse. Liberal arts elective.

### **WE 2310 Mind, Media & Culture (3 Cr.)**

This course explores the influence of media on cultural patterns and human consciousness, using the concept of “media ecology” as an organizing principle. We will analyze the impact of contemporary electronic media first by putting them in perspective of earlier cultures’ modes of information storage and communication, including oral-aural culture, scribal/manuscript culture, print technology culture, and the culture of electric communication and knowledge storage. We will then analyze how thinking and valuing are influenced by hypertext, World Wide Web, e-mail, listservs, social networking media (MySpace, twittering, instant messaging, etc.), cell phones, You-Tube, blogs, and electronic educational software and technology. Liberal Arts elective. Writing Emphasis elective. (Prerequisites: EN 1 & 2, Cultural Heritage 1)

## **SOCIAL AND BEHAVIORAL SCIENCES**

### **SS 1110 Introduction to Sociology (3 Cr.)**

Sociology is a strategy to understand social behavior. This course explores basic concepts and knowledge obtained through sociological analysis. Selected topics can include: socialization, groups, deviant behavior, family, bureaucracy, and work. Format consists of lectures, class discussions, and student assignments.

### **SS 1520 Introduction to Anthropology (3 Cr.)**

Surveys the study of human cultural development and variation. The course includes three major subfields: archeology, cultural anthropology, and physical anthropology. Liberal Arts elective.

### **SS 2100 Principles of Psychology (3 Cr.)**

A study of the basic principles of human behavior with particular attention to the objectives and methods of psychology. Human development and aging; learning and memory; and personality and motivation are studied to better understand the capacities and potentials of human behavior.

### **SS 2500 American Politics and Government (3 Cr.)**

A review of the basic principles that undergird the American governmental system, followed by an examination of the interrelationships between such groups as political parties, pressure groups, the presidency, Congress, and the courts. Students become actively engaged with the topics through political exercises and simulations. Liberal Arts elective.

### **SS 2510 Cultural Anthropology (3 Cr.)**

Culture is resources adapted to human needs. This course is an introduction to cultural analysis, examining social institutions common to all cultures, e.g., family; foodgetting; healing and death; religion and rites of passage. Dimensions of cultural variation such as secret associations, economic systems, and social inequality are also included. Format consists of lectures, ethnographic analysis, class discussion, and ethnographic films. Liberal Arts elective. (Prerequisite: SS 1110 or SS 1520 or equivalent)

### **SS 2520 Economics (3 Cr.)**

An introduction to the operation and development of the American economic system. The course is an overview of basic economic principles covering both macroeconomics and microeconomics. Discussion of current economic events are used to help students apply the principles to real situations. Lectures and discussions. Liberal Arts elective.

### **SS 2530 International Politics (3 Cr.)**

Forces and factors in the struggle for world power and influence are studied. Focus is on the role of nationalism in struggles both in Europe and the Third World, and on the new role of the United Nations in the wake of the Cold War. Class discussion involves students in the critical analysis of major world issues. Liberal Arts elective.

## Pharm.D. Course Descriptions

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### **SS 2540 Social Psychology (3 Cr.)**

Introduction to the knowledge of how social variables influence individual behavior. Topics can include attraction, cooperation, dominance, influence, and leadership. Students learn to participate more effectively in daily social interaction. Format consists of lecture, class discussion, films, and specific assignments. Liberal Arts elective. (Prerequisites: SS 1110 and SS 2100)

### **SS 2550 Social Problems (3 Cr.)**

Social problems occur when social policies and behavior contrast with societal values. The purpose of this course is to provide current information and knowledge about the causes of social problems in American society and evaluate alternative responses. Topics can include: crime, minority relations, substance abuse, and poverty. Format consists of lectures, class discussion, films, and specific assignments. Liberal Arts elective. (Prerequisite: SS 1110 or equivalent)

### **SS 2560 Family in Modern Society (3 Cr.)**

Explores the development of intimacy as foundation for marriage and family life within social and family structures. Focus is upon contemporary families in the United States. Topics include: self-revelation; child raising; crises; second families; and life in the elder years. Format consists of lectures, group activities, class discussion, guests, and relevant films. Liberal Arts elective. (Prerequisite: SS 1110 or equivalent)

### **SS 2570 Human Growth and Development (3 Cr.)**

Study of the physical, psychological, and social developments throughout the human life span. Lectures, discussion, video presentations, and activities. Liberal Arts elective. (Prerequisite: SS 2100 or equivalent)

### **SS 3510 Deviant Behavior (3 Cr.)**

Deviance occurs when behavior does not conform to social expectations. This course is an opportunity to understand the social roots of deviant behavior, including the application of deviant labels to behavior; the process of becoming deviant; and sociological explanations of deviant behavior. Types of deviance can include: substance addictions, sexual deviance, criminal behavior, and suicide. Format consists of: lectures, ethnographic analysis, and class discussion. Liberal Arts elective. (Prerequisite: SS 1110 or equivalent)

### **SS 3520 Social Foundations of Religion (3 Cr.)**

An inquiry into the relationships between religion and society. Emphasis is on the contemporary United States. Topics include: the elements of religion, commitment, conversion, secularization, and religiosity. Specific organizations, changes, and trends of religious expression are selected each time the course is offered. Format consists of: lectures, class discussion, films, and specific assignments. Liberal Arts elective. (Prerequisite: SS 1110 or SS 1520 or equivalent)

### **SS 1550 State Policy and Politics (3 Cr.)**

An introduction to state political systems and an overview of the legislative process and the roles and responsibilities of the executive, legislative, and judicial branches of state governments. At the end of the course, students will have a practical understanding of the issues and politics that affect legislation and bureaucratic decisions. Students also will participate in a mock session of the Missouri State Senate and draft legislation, work the legislation through committees and participate in floor debate. The course will have a special emphasis on health policy in Missouri and Illinois. Liberal arts elective.

### **SS 3590 Social Aspects of Aging (3 Cr.)**

The purpose of this course is to study the social effects of aging processes. Stereotypes of aging, differences between needs and desires, health, public policy issues, and adjustment to a changing social identity are major topics covered. Format consists of: lectures, class discussion, and specific assignments. Liberal Arts elective. (Prerequisite: SS 1110 or SS 1520 or equivalent)

### **WE 3500 International Relations/ World Politics (3 Cr.)**

Focusing on the politics and policies among nations, this course explores balance of power, balance of terror, terrorism, developing countries, international economic transactions, multinational corporations, international organizations, and the foreign policies of the major powers. Writing emphasis elective. Liberal Arts elective. (Prerequisite: SS 2500. A student cannot receive credit for both SS 2530 and WE 3500.)

### **WE 3510 Psychology of Personality (3 Cr.)**

An investigation of psychological theories that attempt to explain how personality is determined. Frequent writing assignments encourage students to ponder and answer universal, broad questions relating to personality theory. Writing emphasis elective. Liberal Arts elective. (Prerequisite: SS 2100)

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### **WE 3520 Abnormal Psychology (3 Cr.)**

A survey of mental disorders, their signs, symptoms, underlying causes, and treatments. Students will learn how a given disorder develops, signs and symptoms that characterize the disorder, how the disorder is treated, and the outcomes of treatment. Students will develop case conceptualization skills to systematically evaluate the critical elements of a clinical case. Writing emphasis elective. Liberal Arts elective. (Prerequisite: SS 2100 or permission of the instructor)

### **WE 3530 History of the Cold War (3 Cr.)**

An analysis of humanity's search for peace and security from 1945 to the present, especially the superpower rivalry among the United States, the former Soviet Union, and China. The competing global agendas of the world's superpowers provide a unique historical backdrop for students to sharpen critical reading and thinking skills through lectures, discussions, films, and written work. Writing emphasis elective. Liberal Arts elective. (Prerequisites: HU 2001 and HU 2002)

### **WE 3550 Studies in Social Psychology (3 Cr.)**

Selection of substantive areas such as aggression, social cognition, collective behavior, influence of media, presentation of self, and processes of social definition. Format consists of lectures, library and observation assignments, class discussions, and student presentations. Written assignments will apply and elaborate on course content. Writing emphasis elective. Liberal Arts elective. (Prerequisites: SS 1110 and SS 2100 or equivalents)

### **WE 3780 Writing for Health (3 Cr.)**

Students who successfully complete this course will learn how writing about illness, loss and grief can improve health outcomes. Skills are developed through investigation of the healthcare literature, self-reflection, group discussions, and written exercises. As an upper-level, professional writing emphasis elective, the assignments are structured to allow students to develop as self-directed, independent learners. Professional elective. Writing Emphasis elective.

## **MATHEMATICS**

### **MA 1100 Calculus and Analytic Geometry (3 Cr.)**

Basic concepts of analytic geometry and calculus with major emphasis on both differential and integral calculus and their applications. Lecture and discussion three hours weekly. (Prerequisite: Satisfactory placement testing score or MA 1600)

### **MA 1600 Pre-Calculus Mathematics (3 Cr.)**

Basic concepts of college algebra and trigonometry. Lecture and discussion three hours weekly. General elective.

### **MA 5100 Biostatistics/Literature Evaluation (4 Cr.)**

A study of the basic statistical concepts and the practical application of statistical methods, including but not limited to: estimation, inference, hypothesis testing, analysis of variance, contingency tables, regression, correlation, and nonparametric methods. Applications to the pharmaceutical and medical literature will be emphasized, with appropriate published literature assigned, discussed, and critiqued.

## **PHYSICAL SCIENCES**

### **CH 1001 General Chemistry (4 Cr.)**

A study of the fundamental principles of atomic structure, stoichiometry, thermochemistry, chemical bonding and molecular geometry that form the basis of modern chemistry and provide the foundation for understanding the structures and properties of common pharmaceuticals. Emphasis on developing problem-solving skills. Laboratory exercises cover measurements, physical and chemical properties of matter, stoichiometry, gas laws, and chemical equilibria. Class meetings three hours and laboratory sessions three hours each week.

### **CH 1002 General and Analytical Chemistry (4 Cr.)**

A continuation of CH 1001, including a study of the principles of chemical equilibria, acid-base properties, thermodynamics, electrochemistry, and kinetics. Continued emphasis on problem-solving and developing critical thinking. Laboratory work includes the qualitative analysis of selected ions, quantitative analysis of acids and bases, pH measurements, redox titrations, and spectrophotometric analysis. Class meetings three hours and laboratory sessions three hours each week. (Prerequisites: CH 1001 and MA 1100 or MA 1600)

### **CH 2001 Organic Chemistry I (4 Cr.)**

A study of the structural and chemical properties of the reactive groups common to pharmaceuticals. Spectroscopic and spectrophotometric approaches to defining drug structure, purity, and stereochemistry will be introduced. Reaction mechanisms characteristic of common reactive centers will be illustrated. Three class hours and three laboratory hours each week. (Prerequisite: CH 1002)

## Pharm.D. Course Descriptions

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### CH 2002 Organic Chemistry II (4 Cr.)

A continuation of CH 2001. Three class hours and three laboratory hours each week. (Prerequisite: CH 2001)

### CH 3100 Biochemistry (4 Cr.)

This course introduces students to the principles of biochemistry as they apply to pharmacy. These include: macromolecular structure and function, acid-base properties of biomolecules, enzyme kinetics, thermodynamics, and cellular metabolism. This course provides the background concepts, skills, and vocabulary necessary to link organic chemistry to medicinal chemistry. (Prerequisites: AP 2100, CH 2002, and PY 2100 or concurrent enrollment in PY 2100)

### CH 4700 Nutritional Biochemistry (2 Cr.)

Chemical structures and reactions of the nutrients that provide energy, tissue-building substances, and coenzyme components from the diet. Examinations of human requirements, biochemical functions, and recommended dietary intakes (RDI) of essential nutrients are made for healthy humans. Each student makes a comprehensive analysis of his or her own diet using microcomputer software and a food database and prepares a written diet evaluation report. The principles of contemporary diet therapy are investigated through reading, instructional videotape, and class discussions in selected areas, such as weight management, blood cholesterol control, and cardiovascular disease. Professional elective. (Prerequisite: CH 3100)

### PY 2100 Physics (4 Cr.)

A one-semester examination of the major concepts of physics, including mechanics of motion; work and energy; translational and rotational equilibrium; fluid statics and dynamics; thermodynamics; electrostatics and electrodynamics; waves, with emphasis on sound and light; optics; and modern physics. Special emphasis is given to applications of physics to the human body. Three class hours and two laboratory hours each week. (Prerequisite: MA 1100)

### PY 3610 Physics II (4 Cr.)

A continuation of PY 2100 with more in-depth investigation into the major concepts of physics. This course will prepare students for advanced work in the pharmaceutical sciences, graduate school, or medical school. Three class hours and two laboratory hours each week. General elective. (Prerequisite: PY 2100)

### WE 3740 Nutrition for Pharmacists (3 Cr.)

This writing emphasis professional elective covers the basic concepts of the science of nutrition and emphasizes topics that are particularly relevant to pharmacists. (Prerequisites AP2100 and completion of or concurrent enrollment in AP3100)

## BIOLOGICAL SCIENCES

### AP 2100 Physiology (4 Cr.)

This course emphasizes basic cellular processes and current understandings of the cellular mechanisms of: cellular respiration, membrane transport, secretion, phagocytosis, electrical membrane potentials, contraction, membrane receptors, and second messenger systems. An overview is provided of cell-to-cell signaling; muscle contraction; synapses; neural reflex arcs; general blood composition and functions; cardiovascular system and blood pressure regulation; respiratory system and bicarbonate ion buffer system; urine formation; general acid/base and fluid balance; and the digestive system. Three hours of lecture and one three-hour laboratory each week. (Prerequisites: AP 2110 and CH 1002)

### AP 2110 Human Anatomy (4 Cr.)

Students use a systemic approach to learn details of human anatomy and medical terminology. At every organizational level, the relationship between structure and function is emphasized. The format combines more traditional lecture to provide students with the basic content and principles of human anatomy, with exercises that emphasize self-learning and problem-solving. A strong drawing component allows students to create illustrations of anatomical structure and/or pathways including labeling and description. The laboratory meets three hours/week and includes a combination of dissection (cat, mammalian, and cadaver organs) and examination of slides and models. Students will be encouraged to develop learning models and analogies to aid in their understanding of the material. (Prerequisite: BI 1100)

### AP 2710 Histology (3 Cr.)

Histology is an advanced elective that deals with the subject of microscopic anatomy by emphasizing the relationship between the structures and functions of cells and tissues. Topics will include the specialization of cells and inter-cellular connections, the classification of histological categories, the microarchitecture of tissues within organs, and the functional and structural interrelationships of tissues. Professional elective. (Prerequisites: BI 1100; AP 2110; AP 2002 or the equivalent, with instructor approval)

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### **AP 3100 Advanced Physiology with Clinical Correlates (5 Cr.)**

This course draws upon specific cellular mechanisms presented in Physiology I to develop an understanding of the integration of functions and mutual dependence among the organ systems in preparation for understanding how disease states disrupt the functions of multiple organ systems. Emphasis placed upon the details of the endocrine system, autonomic nervous system (elaboration of what was presented in the previous course), inflammation, B and T cell functions, hypersensitivity reactions, immune surveillance, and autoimmunity, cardiac arrhythmias, integrated control of blood pressure, integrated acid/base balance, and fluid and electrolyte balance. The laboratory will develop skills by introducing lab techniques and values, signs and symptoms in disease, and preparation for mathematical and scientific reasoning. (Prerequisite: AP 2100)

### **BI 1100 Biology (5 Cr.)**

The content of this introductory biology course includes the organization of living systems at molecular, cellular, and organism levels; basic cellular processes which provide energy, transfer and encoding of genetic information and control cell function and development; plant biology as it relates to the pharmaceutical agents; a phylogenetic survey of the animal kingdom and its evolution. Students are expected to apply biologic principles to problem-solving in areas such as health, study design, and genetic predictions. Students learn to use microscopes and colorimeters, conduct experiments, examine tissues, do pedigree analysis to predict genetic outcomes, practice oral communication skills related to human health, and dissect representative organisms in the laboratory. Four hours of lecture and one three-hour laboratory each week.

### **BI 4100 Molecular Biology (2 Cr.)**

This course introduces students to the principles of nucleic acid, carbohydrate, and protein chemistry and function as they apply to pharmacy. These include: nucleic acid, carbohydrate, and protein structure; the significance of molecular complementarity; DNA replication, repair, recombination; DNA manipulation and its application; RNA synthesis and processing; protein synthesis; targeting and turnover; enzymes, and regulation of gene expression in prokaryotes and eukaryotes. This course also introduces Genomics, Proteomics, Metabolomics, and Pharmacogenomics. Four hours of lecture each week taught over an eight-week period. (Prerequisite: AP 3100)

### **MI 3100 Microbiology (4 Cr.)**

History, classification, structure, function, physiology, and disease-causing properties of bacteria, viruses, protozoa, and special emphasis on host/microbe interactions and chemotherapeutic intervention in infectious disease. Lecture three hours and laboratory 1.5 hours twice each week. (Prerequisites: AP 2100 and CH 2002)

### **WE 4720 Selected Topics in Pathophysiology (3 Cr.)**

This course requires students to acquire relevant information from tertiary sources, organize and synthesize that information, and write a clear explanation as to how the normal physiology is altered and how the standard treatment(s) will restore homeostatic balance. Frequent writing assignments, with revision based upon both instructor and peer review, enable students to enhance their understanding of pathophysiologic processes and therapeutic treatments, and also enhance the structure and clarity of their writing. Writing emphasis elective. (Prerequisite: PP 3110)

## **PHARMACEUTICS**

### **PH 3100 Pharmaceutics (5 Cr.)**

This course studies physiochemical concepts related to the design of drug delivery systems, including topics of solution behavior, weak electrolytes, disperse systems, rheology, and kinetics. Concepts are applied to dosage form design, with an emphasis in both lecture and laboratory on formulation, manufacturing, and professional compounding of common pharmaceutical dosage forms. (Prerequisites: MA 1100, PY 2100, and PH 2110)

### **PH 3700 Surgical, Medical, and Orthopedic Devices (2 Cr.)**

The role of the pharmacist in providing surgical, medical, and orthopedic devices for patient use in the home environment is studied. Emphasis is placed on the role of the pharmacist in selecting the appropriate devices to meet patient needs and in instructing patients in their proper use. Professional elective.

### **PH 4100 Biopharmaceutics (2 Cr.)**

Clinical efficacy of drug products is commonly assessed by the bioavailability of the drug, i.e., the rate and extent of absorption. This course studies the various physical and chemical properties of a drug as well as its dosage forms as they relate to bioavailability and, hence, therapeutic efficacy. Four hours of lecture each week taught over an eight-week period. (Prerequisite: PH 3100)

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### **PH 4110 Pharmacokinetics (2 Cr.)**

A study of the rate processes involved in drug absorption and disposition. Instruction includes basic pharmacokinetic principles necessary for understanding individualized dosing regimens. The course provides practical experience in solving problems involving the design of dosage regimens based on pharmacokinetic parameters obtained from actual patients. (Prerequisites: PH 3100, PH 4100, and PC 4100)

### **PH 4730 Advanced Nonprescription (OTC) Products (3 Cr.)**

The role of the pharmacist in the safe and rational use of nonprescription products is presented. Problem-solving skills involved in the evaluation and recommendation of these products are stressed. Nonprescription ingredients are studied, with an emphasis on pharmacodynamics, indications, contraindications, precautions, drug interactions and appropriate administration. Professional elective. (Prerequisite: Fourth-year standing)

### **PH4750 Advanced Compounding (2 Cr.)**

This course will provide advanced training in the art, science and technology of pharmaceutical compounding. It is a hands-on, laboratory-based course that will help the students become proficient in contemporary compounding techniques and equipment. The focus is on the patient-centered results of compounding, including the preparation of the various drug products and evaluation of the safety and efficacy of each product for each patient. Professional elective. (Prerequisite: PH3100)

## **MEDICINAL CHEMISTRY**

### **CH 4100 Pharmacodynamics and Drug Action: Molecular Mechanisms I (4 Cr.)**

The primary emphasis of this course is the application of physico-chemical properties of drugs to drug therapy. In addition, this course emphasizes the application of molecular mechanisms to explain the side effects of drugs and how drugs function within the molecular pathology of the disease. Special attention is given to the extrapolation to possible new mechanisms for future drug therapy. The areas of specific application include, but are not limited to, the following: the autonomic nervous system, cardiovascular drugs, and anti-inflammatory drugs. (Prerequisites: CH 3100, MI 3100, and AP 3100)

### **CH 4120 Pharmacodynamics and Drug Action: Molecular Mechanisms II (3 Cr.)**

This course is a continuation of Pharmacodynamics and Drug Action: Molecular Mechanisms I. The areas of specific application include, but are not limited to, the following: central nervous system drugs, hormones, antibiotics, and antiviral drugs. (Prerequisite: CH 4100)

### **CH 4710 Medicinal Chemistry Case Studies (3 Cr.)**

By connecting the basic principles of medicinal chemistry (structure-activity relationships, receptor site theory) with a patient, the disease state, and other pertinent information, the student will learn to make appropriate decisions about drug products, dosages, metabolic complications, and how the patient affects the choice of a product. Professional elective. (Prerequisite or concurrent enrollment in CH 4100)

## **PHARMACOLOGY**

### **PC 3700 Contemporary Drug Education (2 Cr.)**

A study of the nature of drug action from the standpoint of drug misuse. Dependence, its psychological implication, and its practical consequences are considered, as well as aspects of rehabilitation, sociocultural effects, community organization, and education. Professional elective. (Prerequisite: Third-year standing or higher)

### **PC 3710 Medicinal Herbs and Phytopharmacy (2 Cr.)**

This course approaches topics on the most commonly used herbal drugs from a scientific viewpoint. The use of herbal drugs is studied according to disease state or folkloric use, and legitimate medical applications are distinguished from quackery. The course centers on the medicinal constituents of the herbs, which forms the basis for intensive studies of interactions between herbal drugs and prescription drugs, toxicities, and plant drugs as leads for new proprietary medicinals. Professional elective. (Prerequisite: AP 3100)

### **PC 4100 Pharmacodynamics and Drug Action Pharmacology I (4 Cr.)**

A study of the principles relating to the pharmacological properties, sites and mechanisms of action, metabolism, uses and toxicology of therapeutically important drugs and diagnostic agents. General principles of drug action and toxicity are emphasized throughout the course, along with clinical considerations and application. Topics include: pharmacokinetics, the autonomic nervous system, cardiovascular agents, and analgesics. (Prerequisites: MI 3100, CH 3100, and AP 3100)

## Pharm.D. Course Descriptions

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### **PC 4120 Pharmacodynamics and Drug**

#### **Action: Pharmacology II (4 Cr.)**

This course expands on principles developed in PC 4100. Topics include: hormones and steroids, diabetes, antihistamines and asthma, anemia, antibiotics, anti-infectives, antineoplastic agents, and herbal therapy. (Prerequisite: PC 4100)

### **PC 5700 Drug Interactions (2 Cr.)**

The major drug classifications are reviewed with respect to significant drug interactions that occur within each class. Emphasis is placed on the practical application of such knowledge so as to permit review of patient profiles in pharmacies, hospitals, and nursing homes. Professional elective. (Prerequisite: PC 4120)

## **PHARMACY ADMINISTRATION**

### **PA 2610 Crisis Communication: What to do when Disaster Strikes (3 Cr.)**

An examination of the impact of communication on the recovery from crises from different vantage points with an emphasis on the health care community and the role that pharmacists play when disaster strikes. Outcomes are achieved through class discussion, case studies and reflection papers. (Prerequisite: second-year standing)

### **PA 2700 Sociology of Medicine (3 Cr.)**

Issues in health care are examined, including practitioner-patient relationships, financing health care, the ethics of practice, and the trend to health promotion and disease prevention. The profession of pharmacy is analyzed from the view of a sociology of the professions. Professional elective.

### **PA 2720 Introduction to Computers and the Internet (3 Cr.)**

Students expand their understanding of a microcomputer, graphical user interface, the College network, word processing, spreadsheets, graphical applications, e-mail, and the Internet in preparation for use in pharmacy practice settings. Professional elective. (Prerequisite: EN 1001 or equivalent computer experience as approved by the instructor)

### **PA 5120 Health Systems Management: Economic Aspects (4 Cr.)**

Basic principles of financial and economic analysis are applied to the management of health systems with special emphasis given to community and hospital pharmacies. Topics include: financial analysis, inventory control, breakeven analysis, cost allocations, reimbursement, health economics, health insurance,

managed health care, and pharmacoeconomics. Case studies are used to encourage active learning and critical thinking.

### **PA 5130 Health Systems Management: Social Aspects (3 Cr.)**

An introduction to management, the health care system, and behavioral pharmacy. The managerial functions of planning, organizing, and influencing human behavior are explored using current behavioral science topics including motivation, leadership, group behavior, and performance evaluation. The health care system is introduced in the context of these organizational behavior principles, with special emphasis on pharmacy's unique roles (industry, managed care, patient behavior, government, and health care organizations). (Prerequisite: Fifth-year standing)

### **PA 5140 Pharmacy Law and Ethics (3 Cr.)**

A study of the laws regulating the pharmaceutical industry and the individual practice of pharmacy with emphasis on legal principles as applied by pharmacists in their daily decision-making processes. Students will acquire an understanding of the laws, regulations, and ethical responsibilities applicable to pharmacists, so they will be able to protect the public and ensure patients' well-being. (Prerequisite: Fifth-year standing)

### **WE 3570 Personal Finance for the Health Care Professional (3 Cr.)**

This course is designed to provide students with the tools needed to financially succeed after graduation. This course is geared toward traditional students who have never experienced the complex process of financial planning, primarily because they have been in school full-time. They will be taught personal finance principles in the areas of taxes, insurance, basic investing, loans and credit, debt consolidation, home purchasing, and basic money management. Writing emphasis elective.

### **WE 3720 Biomedical Ethics (3 Cr.)**

The ultimate goal of this course is for students to develop and refine ideas relating to contemporary issues in biomedical ethics through class participation (discussion of case studies and role plays), critical thinking, and writing. The foundation for these processes is a description of various ethical theories and ethical principles. The application of those principles to pharmacy practice and the provision of pharmaceutical care is emphasized. Professional elective. Writing emphasis elective.

## Pharm.D. Course Descriptions

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### **WE 4725 Doing Research in Public Health (3 Cr.)**

The course provides an opportunity for students to conduct public health research, usually on projects that have already been designed and are awaiting implementation. Students will work in teams, using either their own or on-going projects. Projects must be designed to allow all of the following during the semester: human subject approval, site approval if necessary, pilot testing, implementation, data collection, data analysis, project write-up, and project presentation to the class at the end of the semester. Teams are expected to make a presentation in the spring semester following the course. Professional elective. Writing Emphasis elective. (Prerequisite: WE4740 or permission of instructor)

### **WE 4730 Leadership in Health Care Organizations (3 Cr.)**

This course is designed to develop students' leadership skills by building a strong foundation in traditional and contemporary leadership theory. These skills are developed through self-assessment, group discussions, case studies, and written exercises in health care settings. Writing is used in this course as a tool to learn course content. Professional elective. Writing emphasis elective.

### **WE4740 Public Health Research Perspective in Pharmacy (3 Cr.)**

The course provides a public health perspective for issues related to pharmacy and the pharmaceutical needs of populations. The scope of the class includes both national and global concerns. Topics include health promotion, disease prevention, epidemiology, health policy, ethics, culture, law, health education, and disaster management. The class format includes the review of current literature and the development of a written public health research proposal. Professional elective. Writing Emphasis elective. (Prerequisite: 3rd year student or above)

### **WE 4750 Geriatric Pharmacy Perspective (3 Cr.)**

This course is designed to prepare the student to serve the pharmaceutical needs of a rapidly growing older population. The psychosocial, as well as the pathological aspects, of aging are studied. Emphasis is placed on evaluative and monitoring criteria as well as legal and professional requirements for serving both ambulatory and institutionalized elderly patients. Professional elective. Writing emphasis elective. (Prerequisite: Fourth-year standing)

### **WE 4770 Introduction to Pharmacy Entrepreneurship (3 Cr.)**

This course is designed to acquaint the student with the requirements for small business ownership and prepare the student for the practical problems associated with initiating a retail enterprise. Emphasis is placed on the establishment of appropriate management procedures, estimates of capital requirements, and the mechanics involved with the initial operation of a small business. Professional elective. Writing emphasis elective.

### **WE 5730 Principles of Management (3 Cr.)**

This course enables students to explore the theoretical framework and practical application of classic management principles, so they can function effectively in a variety of organizational settings in the provision of health care services. Topics include the management process, managerial decision-making and planning, negotiation skills, and work design. (Prerequisites: Concurrent registration in, or completion of, PA 5120 and PA 5130; permission of the Deans' Office)

### **WE 5780 Advanced Leadership (3 Cr.)**

This course enables students to engage in the advanced study of leadership, integrating theory, research, and application in a diagnostic approach. Leadership skills for managing planned organizational change and creating learning organizations are developed through Web-based learning technologies. Topics include personal effectiveness, team building, and creating learning environments in organizations. Professional elective. Writing emphasis elective. (Prerequisites: Completion of, or concurrent enrollment in, PA 5120 and PA 5130; permission of the Deans' Office)

## **PHARMACY PRACTICE**

### **PP 2110 Introduction to Pharmacy Practice (2Cr.)**

This first professional course introduces students to pharmacy practice roles and responsibilities within the health care system. The importance of professionalism and ethics will be introduced as a foundation for the practice of pharmacy. The pharmacist's responsibilities to be introduced include: medication distribution, providing drug information, providing direct patient care, patient communication, and education. Students will also be introduced to the calculations needed for patient assessment and dose determination. (Prerequisite: second-year standing)

## Pharm.D. Course Descriptions

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### **PP 2120 Introduction to Pharmaceutical Care: Non-Prescription Drugs and Drug Information (3 Cr.)**

This course introduces students to the practice of pharmaceutical care in the context of nonprescription drug therapy. Students apply valuing and ethical decision-making principles to the provision of pharmaceutical care. Basic drug information skills are honed through use of drug information resources and basic literature search strategies. Students assess patient-specific conditions; evaluate patient-specific, non-prescription regimens; select/recommend non-prescription drug therapy; monitor non-prescription drug therapy; and educate patients about non-prescription drugs. Outside of class preparation is expected through use of online presentations and assignments. Active learning is used in class sessions to apply principles introduced in online lectures and assigned readings. (Prerequisite: completion of, or concurrent enrollment in, AP 2110)

### **PP 3110 Pathophysiology (5 Cr.)**

This course introduces students to many of the diseases which pharmacists are involved with managing. The course examines the mechanisms, etiologies, risk factors, and complications of disease processes. Clinical signs and symptoms, natural history, prognosis, and monitoring of major disease states are emphasized. Students use the SOAP process to practice assessing patient-specific diseases and monitoring for expected disease outcomes or complications. A two-hour discussion period is included weekly. (Prerequisite: AP 3100)

### **PP 3150 Introductory Practice Experience: Foundations of Pharmacy Practice (1 Cr.)**

With the mentorship of a sixth-year student, students are introduced to the foundations of pharmacy practice and patient care responsibilities through site visits and related assignments. Students observe pharmacist interactions with patients and health care professionals in multiple pharmacy settings. This experience helps students relate early curricular content and principles to pharmacy practice. (Prerequisites: AP 2100, concurrent enrollment in or completion of PP 2120, MO pharmacy intern license, and completion of health, drug test and background check requirements)

### **PP 4140 Introductory Practice Experience: Safe Medication Practices – Community Pharmacy (3 Cr.)**

This course introduces students to community pharmacy practice through a supervised, three-week full-time experience (120 hours) at a community pharmacy. Students, with supervision of a pharmacist-preceptor, will apply knowledge

and skills gained during prior coursework to community pharmacy practice. Students will function as part of a pharmacy team in prescription processing and use of computer systems, prescription preparation, reimbursement processes, and non-prescription medication, and home monitoring product selection. Structured assignments will guide students to evaluate daily activities with an emphasis on safe medication use practices. (Prerequisites: PP2120, PH2110, PP3150, EN3100, MO pharmacy intern license, and completion of health, drug test, and background check requirements)

### **PP 4170: Introductory Pharmacy Experience: Clinical Prevention and Population Health (1 Cr.)**

This course introduces students to the potential roles of pharmacists in improving the health of populations. Topics include utilization of risk factors to screen for disease and principles of continuous quality improvement to improve systems of care and patient outcomes. Basic physical assessment techniques commonly used in health screenings (e.g. blood pressure) and additional patient communication, health belief, and behavioral change frameworks will be introduced. Students will complete 20 experiential hours delivering health messages to patients and performing health screenings in the community. (Prerequisites: EN 3100, PP 3150, PP 3710, PP4140, concurrent enrollment or completion of TH4100/TH4102, MO pharmacy intern license and completion of health, drug test, and background check requirements)

### **WE 4735 Pharmacogenomics (3 Cr.)**

Pharmacogenomics is the study of how a patient's unique genetic variations affect their response to pharmaceutical agents. This course teaches the necessary tools to learn and interpret new advances in pharmacogenomics as they become available. These tools include a sufficient knowledge base in human genetics and genomics, and the ability to use this knowledge base to understand and interpret new pharmacogenomic findings and their significance to drug treatment approaches. One three-hour class session weekly. Professional elective. Writing emphasis elective. (Prerequisites: AP 3100, MI 3100)

### **PP 4740 Introduction to Nuclear Pharmacy (2 Cr.)**

Basic concepts include radiation, detection of radioactivity, and the production and quality control of certain radiopharmaceuticals. The localization and biochemical fate of major diagnostic radiopharmaceuticals and public health aspects of radiation are also studied. Emphasis is placed on the use of radioisotopes in medicine. Professional elective.

## Pharm.D. Course Descriptions

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### **PP 4760 Parenteral Therapy (2 Cr.)**

Topics presented include aseptic and IV admixture techniques, kinetics of parenteral dosage forms, fluid and electrolyte balance, use of parenteral fluids and electrolytes, principles of IV incompatibility, radiopharmaceuticals, blood component products, handling and disposal of antineoplastics, calculating mEq equivalents, and total parenteral nutrition formulas. Professional elective. (Prerequisites: PH 3002 and AP 3003)

### **PP 5180 Advanced Pharmacy Practice and Laboratory (4 Cr.)**

The goal of this course, which includes lecture and laboratory, is to instill professional confidence in students and to help prepare them to enter into an ethical, patient-centered practice. The laboratory will facilitate accomplishment of these goals by providing the students with opportunities to practice and refine relevant professional skills and to apply their knowledge to patient situations. A variety of professional skills will be emphasized, including communication, drug information, identifying and solving actual or potential drug-related problems, monitoring for therapeutic outcomes, and medication order processing. (Prerequisite: PH 4110)

### **PP 5155 Introductory Practice Experience: Safe Medication Practices – Health System Pharmacy (3 Cr.)**

This course introduces students to health-system pharmacy practice through a supervised, three-week full-time experience (120 hours) at a hospital pharmacy. Students will apply knowledge and skills gained during prior coursework to health-system pharmacy practice. Students, under the supervision of a pharmacist preceptor, will participate in drug distribution and medication use systems, order processing and use of computer systems, order preparation including unit dose and intravenous admixtures, and clinical services. Structured assignments will guide students to evaluate daily activities with an emphasis on safe medication use practices. (Prerequisites: PH2110, PP3150, EN3100, PP4140, fifth-year status, MO pharmacy intern license and completion of health, drug test, and background check requirements.)

### **PP 5156 Introductory Practice Experience: Interprofessional Patient Care (1 Cr.)**

Introductory Practice Experience: Interprofessional Patient Care is a required course designed to introduce the student to longitudinal and interprofessional patient care principles. Students will practice various patient assessment and interviewing techniques in order to identify potential

drug and/or disease-related problems, develop an assessment and plan for managing and monitoring those problems, communicating their recommendations to patients and other health care professionals, and documenting the interventions appropriately. (Prerequisites: Completion of PP3150, PP4140, PP4170, PP5155, MO pharmacy intern license and completion of health, drug test, and background check requirements)

### **PP 5160 Disease State Management I: Clinical Epidemiology (2 Cr.)**

Emphasizes concepts of biomedical literature evaluation and clinical epidemiology, including disease frequency, risk, cause, prognosis, and treatment outcomes. Utilizing required analysis and evaluation of selected studies from the primary literature, students practice selection of diagnostic tests/outcome measures and best therapies for treatment and prevention of diseases for patients and populations. Students also assess disease risk/prognosis and disease screening and prevention strategies for patients and populations. (Prerequisite: TH 4120)

### **PP 5170 Disease State Management II: Evidence-Based Medicine (2 Cr.)**

This capstone course teaches an evidence-based approach to managing pharmacotherapy in both individuals and populations. Students practice the steps of asking a PICO question, searching for and critically appraising pertinent biomedical medical information, and then applying the results to therapeutic decision-making and patient education in a variety of contexts, including managed care. The course also introduces systematic reviews and medical informatics (clinical decision support tools). The class incorporates important aspects of clinical epidemiology and biostatistics/literature evaluation. (Prerequisites: TH 4120 and PP 5160)

### **PP 5710-PP 5730 Advanced Pharmacotherapy I and II (2 Cr.)**

This abilities-based elective course provides students the opportunity to enhance clinical decision-making skills and self-learning skills by focusing on complex pharmacotherapy cases and evaluation of primary literature and guidelines to promote effective abilities in evaluating pharmacotherapy regimens, selecting and recommending therapeutic regimens, and educating patients and health care professionals utilizing the principles of evidence based decision-making. Course topics change each year so students can take both Advanced Pharmacotherapy I and Advanced Pharmacotherapy II if desired. Professional elective. (Prerequisite: TH 5100 and concurrent/prior enrollment in TH 5120)

## Pharm.D. Course Descriptions

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### **PP 5720 Women's Health Pharmacotherapy (3 Cr.)**

Provides students with a focused introduction to the pharmacotherapy of women's health. Students integrate knowledge of gender-specific issues and pharmacotherapy in selecting and evaluating pharmacologic therapy for common illnesses in women. Emphasis is placed on rendering care to women in the community pharmacy setting. One two-hour lecture and one one-hour lecture/discussion weekly. Professional elective. (Prerequisites: TH 4100, TH 4120, and TH 5100)

### **PP 6115-6197 Advanced Practice Experiences (32 Cr.)**

#### **PP 6115 Ambulatory Care**

#### **PP 6125 Community Care**

#### **PP 6162 Health-System Management**

#### **PP 6165 Acute Care-General Medicine Medicine**

#### **PP6161 Patient Care Selective**

#### **PP 6196 Elective I**

#### **PP 6197 Elective II**

#### **PP6198 Elective III**

These advanced practice experiences (APEs) are supervised, structured, full-time experiences (40 hours weekly). Students will apply abilities gained during prior coursework in various pharmacy practice settings. Each student is required to complete the eight advanced practice experiences listed above to gain experience in the required pharmacy settings (community, health system, ambulatory care, and inpatient general medicine). Elective rotations offer opportunities for students to explore areas of interest that are available in specialty pharmacy practice settings, patient care specialties, and non-patient care environments (e.g., drug information, managed care, pharmaceutical industry). (Prerequisites: satisfactory completion of all prior didactic coursework, a cumulative and professional GPA of 2.0 or higher, passing score on the Pharmacy Calculations Proficiency Exam, current CPR certification, current MO pharmacy intern license, completion of health, drug screening and background check requirements)

### **PP 6100 Pharmacy Practice Seminar (1 Cr.)**

Students develop a clinical prevention or population health service and present it in a formal professional forum. Self, peer, instructor, and external professional assessments enhance students' professional communication ability. Two contact hours weekly. (Prerequisite: TH 5120)

### **TH 4100 Therapeutics I (4 Cr.)**

Emphasizes integration of principles of pathophysiology and pharmacology in the treatment of renal diseases, fluid and electrolyte disorders, acid-base disorders, cardiovascular diseases, diabetes, nutrition, and obesity. Students also learn and use drug informatics skills, adverse drug event surveillance, and basic literature evaluation to address therapeutic questions. Students use the SOAP process to assess diseases, evaluate and solve therapeutic problems, devise plans for drug therapy and monitoring, and provide patient and health care provider education and information. (Prerequisites: PP 3110 and concurrent enrollment in PC 4100)

### **TH 4120 Therapeutics II (4 Cr.)**

Emphasizes integration of principles of pathophysiology and pharmacology in the treatment of hematologic disorders, arthritic disorders, autoimmune diseases, gastrointestinal disorders, psychiatric disease, endocrine disorders, women's health, pulmonary disorders, and drug dependence and withdrawal. Students utilize drug information skills and basic literature evaluation to address therapeutic questions. Course outcomes include thinking and decision-making, communication, and self-learning. Students use the SOAP process to assess diseases; evaluate and solve therapeutic problems; devise plans for drug therapy and monitoring; and provide patient or health care provider education. One three-hour lecture and one two-hour discussion weekly. (Prerequisites: TH 4100 and concurrent enrollment in PC 4120)

### **TH 5100 Therapeutics III (4 Cr.)**

Emphasizes integration of principles of pathophysiology, pharmacology, and pharmacokinetics in the treatment of neurologic diseases, infectious diseases, poisonings, and drug overdoses, and disorders in pediatric and geriatric patients. Requires utilization of drug information skills and basic literature evaluation to address therapeutic questions. Students use the SOAP process to assess diseases; evaluate and solve therapeutic problems; devise plans for drug therapy and monitoring; and provide patient education. One three-hour lecture and one two-hour discussion weekly. (Prerequisites: TH 4120, PC 4120, and PH 4110)

## Pharm.D. Course Descriptions

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### **TH 5120 Therapeutics IV (4 Cr.)**

Emphasizes integration of principles of pathophysiology, pharmacology, and pharmacokinetics in the treatment of oncologic disorders, solid organ transplantation, infectious diseases, and critical care medicine. Requires utilization of drug information skills and basic literature evaluation to address therapeutic questions. Students use the SOAP process to assess diseases, evaluate and solve therapeutic problems, devise plans for drug therapy and monitoring, and provide patient education. One three-hour lecture and one two-hour discussion weekly. (Prerequisite: TH 5100)

### **WE 3730 Topics in Pharmaceutical Care: Community Service (3 Cr.)**

This course provides students with a structured community service experience so they can: 1) explore their values, particularly attitudes toward service; 2) gain experiential knowledge of the population they are serving; 3) learn about the operations of social/medical agencies; and 4) develop a better understanding of patient-centered care. Students schedule and prepare service activities; make weekly visits to patients/clients; and reflect on their experiences during oral discussions and in written journals and essays. Two hours of lecture and discussion, plus two to three hours of service activity weekly. Professional elective. Writing emphasis elective.

### **WE 4700 Current Topics in Infectious Diseases (2 Cr.)**

This course emphasizes pathophysiologic aspects of selected common infections, clinical microbiology, laboratory diagnosis, and treatment and monitoring of infections. One two-hour lecture/discussion weekly. Professional elective. Writing emphasis elective. (Prerequisites: MI 3100, PP 3100, and concurrent enrollment in PC 4001)

### **WE 4710 Topics in Pharmacotherapeutics: Geriatrics, Neurology, and Psychiatry (2 Cr.)**

Students learn the pathophysiology, clinical diagnosis, and non-pharmacologic management of major neurologic, psychiatric, and geriatric disorders. This course also introduces pharmacologic/therapeutic strategies in preparation for rendering pharmaceutical care. Professional elective. Writing emphasis elective. (Prerequisites: PP 3100, and concurrent enrollment in PC 4001 and TH 4001)

### **WE 5710 Current Topics in Pharmacotherapeutics: Primary Care (3 Cr.)**

Primary care is a subset of ambulatory care that provides comprehensive, first contact, and continuing care to patients with chronic medical problems. Topics discussed include improving patient compliance, smoking cessation, allergic rhinitis, and hormone replacement. Management of patients with multiple medical problems is discussed, and opportunities are provided to practice written documentation suitable for inclusion in the medical record. Professional elective. Writing emphasis elective. (Prerequisite: Completion of, or concurrent enrollment in, TH 5001)

## **MISCELLANEOUS COURSES**

### **PE 2600 Fitness Testing and Conditioning (1 Cr.)**

The course provides the knowledge and skills to measure and assess one's physical performance. Using this information, students develop a personalized fitness program. General elective. (Prerequisites: Good physical health and a signed waiver)

### **PE 2610 Varsity Sports: Leadership Experience (1 Cr.)**

This course is designed to enhance the education and development of students through competitive sports involving the principles of sportsmanship, fair play, character development, honesty and integrity. Students participate in varsity sports will design and lead a team service project, including a final report that enables them to demonstrate servant leadership, teamwork, responsibility, respect and integrity. General elective. (Prerequisite: Enrollment in years two through five, participation in intercollegiate varsity sports team)

### **SS 1100 STL COP Orientation (1 Cr.)**

This course is designed to facilitate the transition to St. Louis College of Pharmacy. The course is taught in small groups. The goals of the course are: 1) to introduce the student to the College campus and its services and facilities; 2) to help the student develop a network of support that fosters a sense of belonging; and 3) to increase awareness of and involvement in the College, regional, and professional communities.

## Pharm.D. Course Descriptions

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### **Research Project (1 or 2 Cr.)**

Before a student may register for a research project, a written proposal describing the project must be approved by the sponsoring faculty member and respective division director. A student is allowed a maximum of two credit hours of research and/or special project per semester. Students must summarize the accomplishments of the project by preparing a written report. A final exam is optional. No more than four credit hours of special projects and/or research projects will count toward graduation requirements.

### **Special Projects (1 or 2 Cr.)**

Special projects are to permit an in-depth study of an advanced topic within a specific discipline. Before a student may register for a special project, a written proposal describing the project must be approved by the sponsoring faculty member and respective division director. Special projects are not to duplicate efforts in existing courses. A student is allowed a maximum of two credit hours of research and/or special project per semester. Students are to summarize the accomplishments of the special project by preparing a written report. A final exam is optional. No more than four credit hours of special projects and/or research projects will count toward graduation requirements.

### **Selected Topics (2 or 3 Cr.)**

Selected topics courses might be offered by any faculty member with the approval of the respective division director and curriculum committee. Selected topic courses are intended for students who wish to continue their studies of a discipline in which they have already taken one or more classes. (Prerequisites to be determined by instructor)

# Faculty

( ) indicates start date at the College + Part-time \* Pharmacist

## **Victoria Jayne Aitken+**

Adjunct Instructor (2009) Saint Louis University, M.A.

## **Lauren Ash\*+**

Assistant Professor of Pharmacy Practice (2009)  
St. Louis College of Pharmacy, Pharm.D.

## **Benjamin Barth**

Assistant Professor of Organic Chemistry (2011) Spring  
Arbor University, B.A., Purdue University, Ph.D.

## **Kimberly Bates+**

Adjunct Instructor of Math (2009) Saint Louis University, M.A.

## **John M. Beale\***

Professor of Medicinal Chemistry (1997)  
University of Iowa, B.S., M.S., Ph.D.

## **Evelyn S. Becker\***

Professor of Biology (1970) St. Louis College of  
Pharmacy, B.S., Pharm.D.; City College of New  
York, B.S.; Washington University, M.A.

## **Valeria Bernardo\***

Assistant Professor of Pharmacy (2011) St. Petersburg  
College, A.S., University of Florida, Pharm.D.

## **Tricia M. Berry\***

Assistant Dean and Director, Experiential Programs,  
Professor of Pharmacy Practice (1995) St. Louis  
College of Pharmacy, B.S., Pharm.D.

## **Rhonda Bilger\*+**

Adjunct Instructor (1989) St. Louis College of Pharmacy, B.S.

## **Ruth Birch+**

Adjunct Instructor of Biology (2005) University  
of Illinois, B.S., M.S., Ph.D.

## **Suzanne G. Bollmeier\***

Associate Professor of Pharmacy Practice (2001) St.  
Louis College of Pharmacy, B.S., Pharm.D.

## **David Boltz+**

Adjunct Instructor (2009) Wayne State  
University, B.A.; Purdue University, M.S.

## **Amie D. Brooks\***

Associate Professor of Pharmacy Practice (2006) St.  
Louis College of Pharmacy, B.S., Pharm.D.

## **Natalie A. Brooks\*+**

Adjunct Assistant Professor of Pharmacy Practice  
(2006) St. Louis College of Pharmacy, Pharm.D.

## **C. Ryan Browning+**

Adjunct Instructor (2005) Southern Illinois  
University at Edwardsville, B.A., M.S., M.A.

## **Alexander Bryant\*+**

Adjunct Assistant Professor (2011) St. Louis  
College of Pharmacy, Pharm.D.

## **Penny Bryant+**

Adjunct Instructor of Communications (2004)  
Lindenwood University, B.S., M.S.A.

## **Ehren Bucholtz**

Assistant Professor of Chemistry (2006) Northern Illinois  
University, B.S., University of North Carolina, Ph.D.

## **Katie Buehler\***

Assistant Professor of Pharmacy Practice  
(2011) Drake University, Pharm.D.

## **John M. Burke\***

Associate Dean of Professional Development and  
Clinical Affairs; Director, Pharmacy Practice; Professor,  
Pharmacy Practice (1992) University of Missouri-  
Kansas City, B.S.; University of Texas, Pharm.D.

## **Christy Burrows\***

Assistant Professor of Pharmacy Practice (2009)  
St. Louis College of Pharmacy, Pharm.D.

## Faculty

( ) indicates start date at the College + Part-time \* Pharmacist

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### **Rasma S. Cherson\***

Professor of Pharmaceutics (1985) University of Wisconsin, B.S.; University of Michigan, Ph.D.  
Michel J. Cloutier, Associate Professor of Microbiology (1990) University of Vermont, B.A.; Syracuse University, Ph.D.

### **Andrew Crannage\***

Assistant Professor of Pharmacy Practice (2008)  
St. Louis College of Pharmacy, Pharm.D.

### **Carol Cross+**

Adjunct Instructor of Chemistry (2002) University of Missouri, B.S.; University of Michigan, M.S., M.S.E.

### **Michael W. Daly\***

Assistant Professor of Pharmacy Practice (2006) Creighton University, B.S.; University of Nebraska, Pharm.D.

### **Joseph Davis+**

Adjunct Assistant Professor of Political Science (1993) Saint Louis University, B.A., M.A.

### **Marc Dorfman+**

Adjunct Instructor (2009) University of Oregon, Ph.D.

### **Dennis Doyle**

Assistant Professor of History (2011) Eastern Connecticut State University, B.A., State University of New York-Stony Brook, M.A., Ph.D.

### **Amy Drew\***

Assistant Professor of Pharmacy Practice (2008) University of Illinois, B.S.; Midwestern University, Pharm.D.

### **Wendy Duncan\***

Dean of Pharmacy and Professor of Pharmacy (2006) University of Toronto, B.Sc., Ph.D.

### **P. Benjamin Erwin\***

Assistant Professor of Pharmacy Practice (2010) Southern Illinois University, Pharm.D.

### **Patrick M. Finnegan\***

Assistant Professor of Pharmacy Practice (2003) Saint Louis University, B.S.; St. Louis College of Pharmacy, B.S., Pharm.D.

### **Marilyn A. Fontane**

Professor of English (1989) Colorado State University, B.A., M.A.; University of Nebraska, Ph.D.

### **Patrick E. Fontane**

Professor of Sociology (1987) University of Connecticut, B.A.; State University of New York-Buffalo, M.A., Ph.D.

### **Dayton J. Ford**

Associate Professor, Biology; Assistant Dean for Assessment and Faculty Development (1999) State University of New York-Syracuse, B.S., Ph.D.

### **Alicia B. Forinash\***

Associate Professor of Pharmacy Practice (2002) St. Louis College of Pharmacy, B.S., Pharm.D.

### **Lisa Marie French+**

Adjunct Instructor (2007) University of Missouri, B.A., M.S.

### **Claude Gaebelein**

Associate Professor of Biostatistics (2002) John Carroll University, A.B.; Kent State University, M.A., Ph.D.

### **Brenda Gardenour**

Assistant Professor of History (2008) University of New Hampshire, B.A.; Boston University, M.A., Ph.D.

### **Fred P. Gattas III\*+**

Adjunct Assistant Professor of Nuclear Medicine (2009) University of Tennessee, Pharm.D.

### **Nicole M. Gattas\***

Assistant Professor of Pharmacy Practice (2003) University of Iowa, Pharm.D.

### **Gemma P. Geslani**

Associate Professor of Biochemistry (2007) Silliman University, B.S.; University of the Philippines, M.S.; University of South Carolina, M.P.H., Ph.D.

### **Brenda L. Gleason\***

Associate Professor of Pharmacy Practice (1999) St. Louis College of Pharmacy, B.S., Pharm.D.

## Faculty

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### **Chaya Gopalan**

Associate Professor of Physiology (2008) Bangalore University, India, B.S., M.S.; University of Glasgow, Scotland, Ph.D.

### **Jaime Gotto+**

Adjunct Instructor (2007) Logan College of Chiropractic, B.S., D.C.

### **Gloria R. Grice\***

Associate Professor of Pharmacy Practice (2002) University of Maryland, Pharm.D.

### **K. Scott Gronowski\*+**

Adjunct Professor of Pharmacy Law (2008) Drake University, B.S., Saint Louis University, J.D.

### **Jill Harter+**

Adjunct Instructor of Fitness (2003) Saint Louis University, B.A.

### **Joan Hanson+**

Adjunct Assistant Professor (2007) Webster University, B.A.; Saint Louis University, M.A.

### **Jacklyn Harris\***

Assistant Professor of Pharmacy Practice (2008) St. Louis College of Pharmacy, Pharm.D.

### **Leo Hertling+**

Adjunct Instructor of Financial Management (2006) Saint Louis University, B.S., University of Nebraska-Lincoln, M.S.

### **Brooke E. Hollands\*+**

Adjunct Assistant Professor (2010) Wilkes University, Pharm.D.

### **Sheldon G. Holstad\***

Professor of Pharmacy Practice (1987) University of Iowa, B.S., Pharm.D.

### **Michael Howard+**

Adjunct Instructor (2010) Murray State University, B.S.; University of Miami, Ph.D.

### **Peter D. Hurd**

Professor of Pharmacy Administration (1986) Dartmouth College, A.B.; Duke University, M.A.; University of Minnesota, Ph.D.

### **Cheri A. Jablonowski+**

Adjunct Instructor of Anatomy (1994) Logan College of Chiropractic, B.S., D.C.

### **Lenka Janecka\*+**

Adjunct Instructor of Pharmacy Practice (2011) University of Toronto, B.Sc.

### **Victoria Jenne\***

Assistant Professor of Pharmacy Practice (2008) Central Methodist College, B.A.; Saint Louis University, M.P.H.; St. Louis College of Pharmacy, Pharm.D.

### **Donna Johnson+**

Adjunct Assistant Professor (2008) Webster University, M.A.

### **Rebecca Jones**

Associate Director of Academic Support (2004) DePaul University, B.S.; Eastern Illinois University, M.S.

### **Paul H. Juang\***

Associate Professor of Pharmacy Practice (2005) University of Rochester, B.S.; University of Buffalo, Pharm.D.

### **Marlene G. Katz**

Associate Professor of Chemistry (1993) University of Illinois, B.S.; University of Chicago, M.S., Ph.D.

### **Clark Kebodeaux\***

Assistant Professor, Pharmacy Practice (2011) University of Kansas, Pharm.D.

### **Jeffrey Keene+**

Adjunct Instructor (2010) Missouri State University, B.S.; Saint Louis University, M.S., Ph.D.

### **Kimberly J. Kilgore**

Dean of Arts and Sciences & Student Affairs and Professor of Chemistry (2006) Muskingum College, B.S.; The Pennsylvania State University, Ph.D.

### **Ross D. Kirchoefer+**

Adjunct Professor of Chemistry (2007) University of Missouri, B.S., M.A.

## Faculty

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---

### **William Kist**

Assistant Professor of Physiology (2011)  
University of Missouri, B.S., M.S., Ph.D.

### **Allison Kleiber+**

Adjunct Assistant Professor of Anatomy (2009) University  
of Missouri, B.A.; University of Nebraska, Ph.D.

### **Matthew Korobey\*+**

Adjunct Assistant Professor (2010) St. Louis  
College of Pharmacy, Pharm.D.

### **Theresa Laurent**

Associate Professor of Mathematics (2002) Southern Illinois  
University-Carbondale, B.A., M.S.; University of Missouri, Ph.D.

### **Shin-Yu Lee\***

Assistant Professor of Pharmacy Practice (2011)  
University of Southern California, B.S., Pharm.D.

### **Alex Leith+**

Adjunct Instructor of Communications (2011) Brigham Young  
University B.A., Southern Illinois University Edwardsville, M.A.

### **Travis W. Linneman\*+**

Assistant Professor of Pharmacy Practice  
(2005) University of Kansas, Pharm.D.

### **Marcus Long+**

Adjunct Professor of Public Policy (2008)  
University of Missouri, B.A., M.A.

### **Jonathan McMahan**

Adjunct Assistant Instructor (2009) Butler University, Pharm.D.

### **Janelle Mann\***

Assistant Professor of Pharmacy Practice (2011)  
St. Louis College of Pharmacy, Pharm.D.

### **M. Jennifer Margarida+**

Adjunct Instructor (2011) Saint Louis University, B.A.;  
Southern Illinois University at Edwardsville, M.A.

### **Jasna Marjanovic**

Assistant Professor of Pharmacology (2008) University  
of Belgrade, B.S.; University of Illinois, Ph.D.

### **Kamelia Markova+**

Adjunct Instructor (2010) Sofia University, M.S.;  
University of Missouri-St. Louis, M.S.

### **Pat Martin\*+**

Adjunct Instructor (2009) St. Louis College of Pharmacy, B.S.

### **Richard P. McCall**

Professor of Physics (1996) Northeast Louisiana  
University, B.S.; Ohio State University, Ph.D.

### **Margaret A. McGraw+**

Adjunct Instructor of Spanish (2006) Washington  
University, B.A.; Saint Louis University, M.A.

### **Ryan Moenster\***

Assistant Professor of Pharmacy Practice (2005) St.  
Louis College of Pharmacy, B.S., Pharm.D.

### **Kacie Monson\***

Assistant Professor of Pharmacy Practice (2009)  
St. Louis College of Pharmacy, Pharm.D.

### **Shirley Moreno**

Assistant Professor of Information Science (2009)  
University of Missouri, B.A.; Fontbonne University,  
M.A.; Drexel University M.S.L.I.S.

### **Stephen Morton+**

Adjunct Assistant Professor of Music (1995) Milligan  
College, B.A.; University of Tennessee, M.M.

### **Tim Moylan**

Assistant Professor of English and Director of the  
Theater Program (2007) Southeast Missouri State  
University, B.S.; Saint Louis University, M.A.

### **Susan Mueller**

Instructor of English (2009) Webster  
University, B.A.; Saint Louis  
University, M.A.; University of Missouri, M.A.

### **Julie A. Murphy\***

Associate Professor of Pharmacy Practice (2001)  
University of Toledo, B.S., Pharm.D.

## Faculty

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---

### **Jill S. Nissen**

Assistant Professor of Information Science and Library Director (1993) University of California, B.A., M.L.I.S.

### **Carol H. Oliver**

Associate Professor of English (1977) Luther College, B.A.; University of Illinois, M.A., Ph.D.

### **Michael Patton+**

Adjunct Instructor (2010) Marquette University, B.A., M.A.

### **Erica Pearce\***

Assistant Professor of Pharmacy Practice (2010) Drake University, Pharm.D.

### **Golden Peters\***

Assistant Professor of Pharmacy Practice (2010) Fontbonne University, B.A.; Southern Illinois University, Pharm.D.

### **John A. Pieper\***

President, Professor of Pharmacy Practice (2010) University of Colorado, B.A.; University of Wyoming, B.S.; State University of New York at Buffalo, Pharm.D.

### **Jamie Pitlick\***

Assistant Professor of Pharmacy Practice (2008) Drake University, Pharm.D.

### **Matthew Pitlick\***

Assistant Professor of Pharmacy Practice (2009) Drake University, Pharm.D.

### **Lindsey Pritchard\***

Assistant Professor of Pharmacy Practice (2009) University of Nebraska, Pharm.D.

### **Jasmina Profirovic**

Assistant Professor of Pharmacology (2011) University of Belgrade, B.S., University of Illinois at Chicago, Ph.D.

### **Theresa R. Prosser\***

Professor of Pharmacy Practice (1987) University of Illinois, B.S., Pharm.D.

### **Patricia Rafferty\***

Associate Professor of Pharmacy Practice (2007) University of Missouri, B.S.; Medical University of South Carolina, Pharm.D.

### **John Rapko+**

Adjunct Instructor of Chemistry (2003) Saint Louis University, B.S., Ph.D.

### **Elizabeth Rattine-Flaherty**

Assistant Professor of Communications (2008) Ohio University, B.S., M.A., Ph.D.

### **Garth Reynolds\*+**

Adjunct Instructor (2002) St. Louis College of Pharmacy, Pharm.D.

### **Donald R. Rickert\***

Professor of Pharmacy Administration (1981) St. Louis College of Pharmacy, B.S.; Southern Illinois University, M.B.A.; Saint Louis University, Ph.D.

### **Gary F. Riley Sr.**

Associate Professor of Chemistry (1983) University of Nebraska, B.S., Ph.D.

### **David J. Ritchie\***

Professor of Pharmacy Practice (1989) Purdue University, B.S., Pharm.D.

### **Anastasia Roberts\***

Assistant Professor of Pharmacy Practice (2010) St. Louis College of Pharmacy, Pharm.D.

### **Eric Robinson+**

Adjunct Instructor of History (2007) Howard University, B.A.; University of Missouri, M.A., M.F.A.

### **Rose Robinson\*+**

Adjunct Instructor (2010) Hillsborough Community College, A.A.; Florida A & M University, Pharm.D.

### **Patricia Rooney+**

Adjunct Instructor (2006) University of Missouri-St. Louis, B.S.; Webster University, M.A.; Saint Louis University, Ph.D.

## Faculty

( ) indicates start date at the College + Part-time \* Pharmacist

### **Russell Rosener+**

Adjunct Instructor of Photography (2006)  
University of Missouri, B.A., M.F.A.

### **Jill Sailors\***

Assistant Professor of Pharmacy Practice (2008)  
St. Louis College of Pharmacy, Pharm.D.

### **Noha Salama**

Assistant Professor of Pharmaceutics (2009) Cairo  
University, B.Sc.; University of Maryland, Ph.D.

### **Gregory W. Sand+**

Adjunct Professor of History (2000) Seton Hall University, A.B.;  
Creighton University, M.A.; Saint Louis University, Ph.D.

### **Mark Sarich+**

Adjunct Instructor of Music (2009) University of  
Illinois, B.A.; Southern Illinois University, M.A.

### **Kenneth W. Schafermeyer\***

Professor of Pharmacy Administration; Director, Liberal Arts and  
Administrative Sciences (1990) St. Louis College of Pharmacy,  
B.S.; University of Tennessee, M.S.; Purdue University, Ph.D.

### **Sarah Schlereth+**

Adjunct Instructor of Biology (2002)  
University of Missouri, B.S.

### **Terry L. Seaton\***

Professor of Pharmacy Practice (1991) University of  
Colorado, B.S.; University of Washington, Pharm.D.

### **Jack W. Simmons+**

Adjunct Instructor (2007) Northeast  
Missouri State University, B.S., M.A.

### **Daron Smith\*+**

Adjunct Instructor (2010) St. Louis College of Pharmacy, B.S.

### **Zachary A. Stacy\***

Associate Professor of Pharmacy Practice (2004)  
Blackburn College, B.A.; Southern Illinois University,  
M.S.; St. Louis College of Pharmacy, B.S., Pharm.D.

### **Alison Stevens\*+**

Adjunct Assistant Professor (2011) Butler University, Pharm.D.

### **Rita Swiener+**

Adjunct Assistant Professor of Psychology (2008) University of  
Missouri-St. Louis, B.A.; Southern Illinois University, M.A.

### **Michael Thacker+,**

Adjunct Instructor (2007) University of Missouri-St.  
Louis, B.S.; Lincoln University, M.Ed.

### **Amy M. Tiemeier\***

Assistant Professor of Pharmacy Practice (2003) St.  
Louis College of Pharmacy, B.S., Pharm.D.

### **Lucia J. Tranel**

Associate Professor of Biology (1978)  
University of Missouri, B.A., M.S.

### **Melanie VanDyke+**

Adjunct Instructor of Psychology (2003) Saint Louis University,  
B.S.; University of Nebraska-Lincoln, M.A., Ph.D.

### **Larry Vertrees+**

Adjunct Instructor of Crisis Communication (2007) Missouri  
Baptist University, B.S.; Webster University, M.A.

### **Scott Vouri\***

Assistant Professor of Pharmacy Practice  
(2011) Butler University, Pharm.D.

### **Brian D. Walter**

Assistant Professor of English (2007) Reed College,  
B.A.; Washington University, M.A., Ph.D.

### **Jennifer Wear\***

Assistant Professor of Pharmacy Practice (2010) Rockhurst  
University, B.A., M.B.A.; Southern Illinois University, Pharm.D.

### **Margaret A. Weck**

Director, Basic and Pharmaceutical Sciences; Associate  
Professor of Biology (1992) University of Illinois,  
B.S.; Idaho State University, M.S., D.A.

### **Philip Wenger\***

Assistant Professor of Pharmacy Practice  
(2007) University of Illinois, Pharm.D.

## Faculty

( ) indicates start date at the College + Part-time \* Pharmacist

---

### **Stephen Werner+**

Adjunct Instructor (2010) University of Missouri-St. Louis, B.S.; Saint Louis University, M.A., Ph.D.

### **Freddie Wills+**

Adjunct Instructor of Communications (2004) Southwest Baptist University, B.A.; Webster University, M.A.

### **Alexandria Garavaglia Wilson\***

Assistant Professor of Pharmacy Practice (2004) University of Illinois, B.S.; St. Louis College of Pharmacy, B.S., Pharm.D.

### **Abigail M. Yancey\***

Associate Professor of Pharmacy Practice (2005) St. Louis College of Pharmacy, B.S., Pharm.D.

### **Robert Zebroski**

Associate Professor of History (1993) Loyola University, B.S.; State University of New York-Stony Brook, M.A., Ph.D.

### **Mary Lou Zlatic**

Adjunct Instructor (2006) University of Missouri-St. Louis, B.A.

### **Thomas D. Zlatic**

Professor of English (1987) University of Missouri, B.A.; Saint Louis University, Ph.D.

## **Emeritus Members**

### **Rodney J. Cooper**

Professor of Physiology Emeritus (1968) Oklahoma State University, B.S.; Iowa State University, M.S., Ph.D.

### **Jane H. Kitt**

Associate Professor of Mathematics Emeritus (1966) Arkansas Polytechnic College, B.A.; University of Arkansas, M.A.

### **Kenneth W. Kirk\***

Dean and Professor of Pharmacy Administration Emeritus (1995) Ferris State University, B.S.; University of Wisconsin, M.S., Ph.D.

### **Thomas F. Patton\***

President Emeritus, Professor of Pharmaceutics (1994) University of Wisconsin, B.S., M.S., Ph.D.

### **Bruce E. Phillips**

Professor of Chemistry Emeritus (1970) Olivet Nazarene College, A.B.; Washington University, Ph.D.

### **Helen F. Silverman**

Assistant Professor of Library Science Emeritus (1964) Los Angeles State College, B.A.; Columbia University, M.S. in L.S.

### **John W. Zuzack\***

Professor of Medicinal Chemistry Emeritus (1966) St. Louis College of Pharmacy, B.S.; Saint Louis University, B.S., M.S., Ph.D.

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Special Assistant to the President

*# Executive Committee Member*

*+ Alumnus (a)*

*\* Pharmacist*



ST. LOUIS COLLEGE  
*of* PHARMACY

EST. 1864

4588 PARKVIEW PLACE  
St. Louis, MO 63110-1088

TEL: 314.367.8700 EXT: 8328  
TEL: 800.278.5267  
ADMISSIONS@STLCOP.EDU

[WWW.STLCOP.EDU](http://WWW.STLCOP.EDU)