

# **COLLEGE OF PHARMACY BULLETIN**

2020-2021

Pursuant to directives of the President of this institution, the University of Georgia continues its affirmative implementation of equal opportunity to employees, students, covered contractors and vendors, and applicants for employment, admission, or contractor/vendor status. The University of Georgia will act in matters of employment, admissions, programs, and services free of prohibited bias with regard to race, creed, color, sex, national origin, religion, age, veteran status, or disability. Further, the University of Georgia will not maintain racially segregated facilities.

Continuation of the above policies is consistent with applicable provisions of the Civil Rights Act of 1964, the Education Amendments of 1972, Executive Order 11246, Revised Order 4, the Vietnam Era Veterans Readjustment Act of 1974, the Rehabilitation Act of 1973, and The Americans with Disabilities Act of 1990, as revised and/or amended, with implementing regulations. Accordingly, this institution will not discriminate in employment, admissions, programs, or services with regard to any position for which the applicant, employee, or student is qualified and will make reasonable accommodation for physical and mental limitations.

The Affirmative Action Plan implementing the above body of law, regulation, and policy is administered by the UGA Equal Opportunity Office at 119 Holmes-Hunter Academic Building, Athens, Georgia 30602. Telephone inquiries concerning this Plan may be directed to 706-542-7912. Copies of this Plan are available for inspection in the Equal Opportunity Office and in the UGA Main Library during normal weekday working hours. Affirmative Action Plan narrative may also be reviewed at the website, <u>https://eoo.uga.edu</u>, by selecting "Affirmative Action Plan."

This is an unofficial publication of the University of Georgia. The official publication for academic matters of the University of Georgia is the <u>University of Georgia Bulletin</u> (<u>www.bulletin.uga.edu</u>). While every effort is made to provide accurate and current information, the University reserves the right to change, without notice, statements in the bulletin concerning rules, policies, fees, curricula, courses, calendar, or other matters. Further, the statements set forth in this bulletin are for informational purposes only and should not be construed as the basis of a contract between a student and the institution.

While the provisions of this bulletin will ordinarily be applied as stated, the College of Pharmacy reserves the right to change any provision listed in this bulletin, including but not limited to academic requirements for graduation, without actual notice to individual students. Every effort will be made to keep students advised of any such changes. Information on changes will be available in the Office of the Dean. It is especially important that each student note that it is the student's responsibility to keep apprised of current graduation requirements for the student's particular degree program.

If you have a disability and need assistance in order to obtain this bulletin in an alternative format, please contact the College of Pharmacy Office of Student Affairs at (706) 542-5278.

# TABLE OF CONTENTS

Academic Calendar	4
General Information	5
College of Pharmacy History	6
College of Pharmacy Faculty	8
Doctor of Pharmacy Program	11
Program of Study	11
Admission to the Professional Program	11
Application Guidelines	12
Application Timeline	12
Tuition, Fees, and Other Expenses	13
Financial Aid	14
Pharmacy Scholarships	14
Pre-Pharmacy Curriculum	15
Doctor of Pharmacy (Pharm.D.) Curriculum	16
Course Descriptions	20
Pharmaceutical and Biomedical Sciences	20
Clinical and Administrative Pharmacy	22
Interdepartmental Courses	27
Practice Experience	28
Pharmacy Internship	29
Student Organizations	30
Contact Information	33

# ACADEMIC CALENDAR 2020-2021

# FALL 2020\*

Rx DAWGS New Student Orientation	Monday-Friday, August 17-21
Classes Begin	Thursday, August 20
Holiday	Monday, September 7
	Tuesday, October 27
Fall Break	Friday, October 30
Thanksgiving Break	Wednesday-Friday, November 25-27
Classes End	Wednesday, December 9
Reading Day	Thursday, December 10
Final Exams	Friday-Thursday, December 11-17

\*In-person instruction will conclude at Thanksgiving break, with all remaining coursework and final exams moving online following Thanksgiving.

# Spring 2021 (TENTATIVE)

Classes Begin	Monday, January 11
Holiday	Monday, January 18
Spring Break	Monday-Friday, March 8-12
Withdrawal Deadline	Thursday, March 25
First-Year Classes End	Friday, April 9
Final Exams, First-Year Classes	Tuesday-Monday, April 13-19
Classes End	Monday, May 3
Reading Day	Tuesday, May 4
White Coat Ceremony (First-year Students)	To Be Announced
Pinning Ceremony (Third-year Students)	To Be Announced
College of Pharmacy Commencement	Saturday, May 8
Finals Exams	Wednesday-Tuesday, May 5-11
UGA Commencement	Friday, May 14

# **GENERAL INFORMATION**

# ATHENS, GEORGIA

With a metropolitan population of more than 100,000, Athens is a vibrant city situated in rolling Piedmont country. Athens is known for its many cultural opportunities, including concerts, films, and plays. Atlanta, about 65 miles southwest of Athens, offers musical and theatrical events plus major league sports. Only a few hours away from Athens are major recreational areas such as beaches, the Great Smoky Mountains, and national forests containing numerous lakes and hiking trails. The climate is moderate with a daily mean temperature range from 33 to 51 degrees in January and from 69 to 90 degrees in July.

# THE UNIVERSITY OF GEORGIA

The University of Georgia is a unit of The University System of Georgia. The System's Board of Regents was created in 1931 as a part of a reorganization of Georgia's state government. With this act, public higher education in Georgia was unified for the first time under a single governing and management authority. The governor appoints members to the Board, who each serve seven years. Today the Board of Regents is composed of 19 members, five of whom are appointed from the state-at-large, and one from each of the 14 congressional districts. The Board elects a chancellor who serves as its chief executive officer and the chief administrative officer of the University System. The Board oversees the 26 colleges and universities that comprise the University System of Georgia and has oversight of the Georgia Archives and the Georgia Public Library System. For further information, contact: Board of Regents of the University System of Georgia, 270 Washington Street, S.W., Atlanta, Georgia 30334.

# ACCREDITATION

The professional program at the University of Georgia College of Pharmacy is accredited by the Accreditation Council for Pharmacy Education. The Council can be contacted at 135 S. LaSalle Street, Suite 4100, Chicago, Illinois 60603-4810 or by calling (312) 664-3575.

The University of Georgia is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate, masters, specialist and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call (404) 679-4500 for questions about the accreditation of the University of Georgia.

# UNIVERSITY OF GEORGIA ADMINISTRATION

Jere W. Morehead, President, <u>http://www.uga.edu/presofc</u>, (706) 542-1214 S. Jack Hu, Provost, <u>http://www.provost.uga.edu</u>, (706) 542-5806 Kelly Smith, Dean, College of Pharmacy, <u>http://www.rx.uga.edu</u>, (706) 542-1914

# **COLLEGE OF PHARMACY HISTORY**

In 1903, the Committee on Laws and Disciplines of the Board of Trustees authorized the organization of a School of Pharmacy at The University of Georgia at Athens. At the same time, **Dr. Samuel C. Benedict** was appointed to the chair of Materia Medica in the school. Space was allocated in Terrell Hall for the school and six students enrolled for the 1904-1905 year. The educational objective of those six registrants was to matriculate for two years and receive a Ph.G. degree.

In January 1907, **Mr. Robert C. Wilson** was elected Instructor in Pharmacy and in 1914 was named Director of the Department of Pharmacy; in 1924 he became Dean of the School of Pharmacy. In his first report to the Board of Trustees, he noted that the School had graduated the first women students in 1924. Dean Wilson's continuous struggle to improve pharmacy in Georgia led to development of the first four-year required pharmacy degree in the nation, beginning in 1926. In 1939, the school moved to quarters in New College and was accredited by the Accreditation Council for Pharmacy Education, a rating that has been maintained continuously since that time.

**Dr. Kenneth L. Waters** was named Dean of the School of Pharmacy in 1948. Under his guidance, the school grew to the point where a new facility was deemed essential. The building was completed in 1964. One year later, the first students of the five-year pharmacy program graduated. The new facility presented an opportunity for student body and faculty growth with faculty experiencing the greatest percentage increase. Academic programs were improved and research output was significantly increased. The service program developed rapidly to the point where several faculty members were involved. An externship and clinical program were required of undergraduate students in an effort to present the optimum learning experience.

**Dr. Howard C. Ansel** was named Dean in 1977. During his tenure, the name of the school was changed to the College of Pharmacy to reflect the unit's expanded educational, research, and service roles. A Doctor of Pharmacy (Pharm.D.) degree program was offered as a post-baccalaureate degree program and as a tracking option. The Clinical Pharmacy Program at the Medical College of Georgia was established and an assistant dean of pharmacy was named as its administrator. The graduate and research programs of the College were also strengthened through major renovations to the Robert C. Wilson Pharmacy Building, making the College of Pharmacy one of the premier research units on campus. An office of Postgraduate Continuing Education was established to provide for the continuing education needs of the practitioner.

**Dr. Stuart Feldman** was named Dean in 1991. During his tenure, the College received Georgia State lottery funds to increase technology in education. The College was one of the first on campus to have internet capabilities; e-mail and videoconferencing between Athens and Augusta greatly improved communication among faculty and students. The curriculum was converted from quarters to semesters, and the entry-level Doctor of Pharmacy degree and Non-traditional Doctor of Pharmacy Pathway Program were initiated. The experiential portion of the Pharm.D. program expanded to over one-quarter of the overall curriculum, and a full-time experiential coordinator was hired.

**Dr. Svein** Øie became Dean in January, 2000. Under his guidance, the College extended its regional presence, creating extended campuses in Gwinnett, Albany and Savannah. The number of clinical faculty was increased, and the clinical faculty track was officially recognized as part of the UGA teaching corps. The College created residency and fellowship programs and partnered with health systems on our extended campuses to develop or expand residency training. Certificate programs and dual degrees were established; the College developed the University's first on-line graduate program (International Biomedical Regulatory Sciences). The College increased its number of endowed professorships to attract faculty who augmented our research programs. Endowed and deferred gifts increased substantially during this period. The College's physical space in Athens nearly doubled with the construction of Pharmacy South, a state-of-the art teaching and research facility.

**Kelly M. Smith**, **PharmD**, **FASHP**, **FCCP**, assumed the role as Dean of the University of Georgia College of Pharmacy on August 1, 2018. A 1992 and 1993 alumna of the college, she is considered an academic leader with a record of advancing research and pharmacy education.

# **COLLEGE OF PHARMACY FACULTY**

#### **ADMINISTRATION**

*Dean* Kelly M. Smith, Pharm.D.

Associate Dean Michael Bartlett, Ph.D., Associate Dean for Science Education, Research & Technology

#### Assistant Deans

Duc Do, Ph.D., Student Affairs Ken Duke, M.B.A., BSPHR, Savannah Campus Lori J. Duke, Pharm.D., Division of Experience Programs & Interim Lead for Curricular Affairs Susan Fagan, Pharm.D., Augusta Campus Melody Sheffield, Pharm.D., Albany Campus

*Department Heads* Brian Cummings, Ph.D., Pharmaceutical and Biomedical Sciences Bradley G. Phillips, Pharm.D., Clinical and Administrative Pharmacy

#### Directors

Michael Fulford, Ph.D., Assessment & Interim Lead for Faculty Affairs Kim Hamby, Alumni Affairs Melissa Hunter, Finance and Administration Mickey Montevideo, Public Relations, Marketing and Communications Lee Snelling, Development & Alumni Relations

#### PHARMACEUTICAL AND BIOMEDICAL SCIENCES

Cummings, Brian, Ph.D., Professor & Department Head Bartlett, Michael, Ph.D., Professor & Associate Dean for Science Education, Research & Technology Beach, J. Warren, Ph.D., Associate Professor Cai, Houjian, Ph.D., Assistant Professor Chu, Chung, Ph.D., Professor Emeritus Douglass, Eugene, Ph.D., Assistant Professor Elder, Deborah, Pharm.D., Clinical Professor Greenspan, Phillip, Ph.D., Associate Professor Grimsey, Neil, Ph.D., Assistant Professor Hooks, Shelley, Ph.D., Professor & Associate Vice President for Research Kennedy, Eileen, Ph.D., Associate Professor Liu, Dexi, Ph.D., Panoz Professor of Pharmacy Missaoui, Wided, Ph.D., Lecturer Momany, Cory, Ph.D., Associate Professor Murph, Mandi, Ph.D., Associate Professor Øie, Svein, Ph.D., Professor Pegan, Scott, Ph.D., Professor & Director for Center of Drug Discovery Rekhi, Singh, Ph.D., Academic Professional Associate & Director of BS Pharmaceutical **Sciences** Program

Rice, Christopher, Ph.D., Assistant Research Scientist Roberts, Arthur, Ph.D., Associate Professor Singh, Uma, Ph.D., Assistant Research Professor Strauch, Eva-Maria, Ph.D., Assistant Professor White, Catherine, Ph.D., Associate Professor Xiong, May, Ph.D., Associate Professor Yao, Yao, Ph.D., Assistant Professor Zastre, Jason, Ph.D., Associate Professor & Graduate Coordinator Zheng, Yujun George, Ph.D., Professor

# CLINICAL AND ADMINISTRATIVE PHARMACY

Phillips, Bradley, Pharm.D., Milliken-Reeve Professor & Department Head Abu-Sawwa, Renad, Pharm.D., Clinical Assistant Professor Aull, Larry, Pharm.D., Clinical Instructor Bland, Christopher, Pharm.D., Clinical Associate Professor Branan, Trisha, Pharm.D., Clinical Associate Professor Chastain, Daniel, Pharm.D., Clinical Assistant Professor Clemmons, Amber, Pharm.D., Clinical Associate Professor Cobran, Ewan, Ph.D., Assistant Professor Duke, Kenneth, M.B.A., Clinical Assistant Professor & Interim Assistant Dean for Professional Affairs-Savannah Campus Fagan, Susan, Pharm.D., Distinguished Research Professor & Assistant Dean Fleming, Virginia, Pharm.D., Clinical Associate Professor Franic, Duska, Pharm.D., Ph.D., Associate Professor Hawkins, Anthony, Pharm.D., Clinical Associate Professor Herist, Keith, Pharm.D., Clinical Associate Professor Jayawardhana, Jayani, Ph.D., Associate Professor Lavender, Devin, Pharm.D., Clinical Assistant Professor May, Dianne Williams, Pharm.D., Clinical Professor & Augusta Campus Director of Pharmacy Practice Experiences May, J. Russell, Pharm.D., Clinical Professor & Associate Department Head Miller, Mindi, Pharm.D., Clinical Associate Professor Misher, Anne, Pharm.D., Clinical Assistant Professor Narayanan, Priya, Ph.D., Associate Professor Newsome, Andrea, Pharm.D., Clinical Assistant Professor Norton, Merrill, Pharm.D., Clinical Associate Professor Osae, Sharmon, Pharm.D., Clinical Assistant Professor Perri, Matthew III, Ph.D., Professor, Associate Department Head & Director of PharmD/MBA Dual Degree Program Phillips, Beth, Pharm.D., Clinical Professor & Director of VAMC/UGA Ambulatory Care **Residency Program** Richards, Hal, Pharm.D., Clinical Assistant Professor Sattler, Lilian, Ph.D., Assistant Professor Seagraves, Brian, Pharm.D., Academic Professional Associate Segar, Lakshman, Ph.D., Associate Professor Shenoy, Somanath, Ph.D., Professor & Director of Clinical and Experimental Therapeutics Smith, Susan, Pharm.D., Clinical Assistant Professor Southwood, Robin, Pharm.D., Clinical Associate Professor Stone, Rebecca, Pharm.D., Clinical Assistant Professor

 Tackett, Randall, Ph.D., Professor & Graduate Coordinator
 Young, Henry, Ph.D., Associate Professor & Director of Pharmaceutical Health Services, Outcomes & Policy
 Zhang, Duo, Ph.D., Assistant Professor

#### INTERNATIONAL BIOMEDICAL REGULATORY SCIENCES

Gowda, Grace, Ph.D., Director Arkin, Ronald, M.S., Instructor De Gelas, Seppe, M.S., Academic Professional Associate Geiger, Robert, Ph.D., Academic Professional Associate Hodges, Johnna, M.Ed., Assistant Director Jacks, Alexander, M.S., Academic Professional Associate Mandello, Kristen, D.V.M., Academic Professional Associate Silva, Samuel, Ph.D., Academic Professional Associate

#### **EXPERIENCE PROGRAMS**

Duke, Lori, Pharm.D., Assistant Dean and Interim Lead for Curricular Affairs
Brooks, Kay, M.Ed., Associate Director IPPE – Community
Darley, Andrew, Pharm.D., Associate Director IPPE – Health System
Hannings, Ashley, Pharm.D., Associate Director IPPE – Ambulatory Care
Logan, Linda, Pharm.D., Public Service Associate
May, Dianne, Pharm.D., Clinical Professor & Augusta Campus Director of Pharmacy Practice Experiences
McElhannon, Michelle, Pharm.D., Public Service Associate
Miller, Mindi, Pharm.D., Clinical Associate Professor & Regional Coordinator/Atlanta
Sheffield, Melody, Pharm.D., Southwest Georgia Campus Director of Pharmacy Practice Experiences & Interim Assistant Dean for Professional Affairs-Albany Campus
Thomason, Misha, Pharm.D., APPE Director

## CONTINUING PROFESSIONAL DEVELOPMENT AND OUTREACH

von Waldner, Trina, Pharm.D., Director

#### **STUDENT AFFAIRS**

*Do, Duc, Ph.D., Assistant Dean* Hill-Silcott, Vivia, Ph.D., Director of Diversity Programs and Academic Support Vitale, Danielle, Ph.D., Director of Recruitment and Career Development

# **DOCTOR OF PHARMACY PROGRAM**

#### **PROGRAM OF STUDY**

The College of Pharmacy awards the Doctor of Pharmacy (Pharm.D.) degree to students who successfully complete the six-year study of prescribed courses. To receive the Pharm.D. degree, a student must have earned academic credit for not less than 69 semester hours in preprofessional coursework and 148 semester hours of required professional coursework. The preprofessional coursework may be completed at any accredited institution of higher education. At the University of Georgia, the pre-professional program is administered through the College of Arts and Sciences. The last four years (ten semesters) are in the professional program and must be in residence at the College of Pharmacy.

Reflecting the vital importance of health care teams in the delivery of quality health care services, the Pharm.D. curriculum emphasizes interprofessional education and the ability to practice in team settings. Group work is employed in many Pharm.D. didactic courses and a student's ability to function as an effective team member is evaluated at multiple points in the curriculum. Through cases and simulations, Pharm.D. students interact with students in a variety of other health care programs including medicine, nursing, and veterinary medicine. Introductory pharmacy practice experiences (IPPEs) and advanced pharmacy practice experiences (APPEs) also provide numerous opportunities for students to function on health care teams in a variety of practice settings (e.g., hospitals, pharmacies, clinics). The College of Pharmacy is committed to assuring that its Pharm.D. graduates are ready to practice as effective members of interdisciplinary health care teams, thus making important contributions to patients' well-being.

# **ADMISSION TO THE PROFESSIONAL PROGRAM**

The College of Pharmacy accepts students into its professional program for beginning classes only in the fall semester. Applicants who are accepted but do not attend the designated term must repeat the admission process for a future term.

Applicants to the professional program must take the Pharmacy College Admission Test (PCAT) and have their scores transmitted to the Pharmacy College Application Service (PharmCAS). Transcripts showing all college coursework and evaluations (letters of recommendation) must be submitted to PharmCAS. Students may apply to the College of Pharmacy after they have completed the majority of the pre-pharmacy requirements. Applicants are selected for interviews based primarily on the GPA on prerequisite courses and the PCAT composite score. The interview is designed to assess a number of factors including: personality, interpersonal communication skills, written communication skills, motivation, career exploration, and extracurricular activities. Assessment of recommendation letters also is factored into an applicant's admissions score. Final admission decisions are made based on a candidate's application and the interview.

Applicants for admission to the College of Pharmacy who are known to have been officially dismissed from another pharmacy program will not be accepted. A student who gains entrance to the College by misrepresentation of facts may be dismissed immediately.

UGA College of Pharmacy does not accept transfer students directly into the Pharm.D. program. Students previously enrolled in another school of pharmacy must go through our standard admission process and, if accepted, enter the program as a first-year student.

#### **APPLICATION GUIDELINES**

- 1. For **Early Decision**, applicants must submit completed applications online to PharmCAS and to the College of Pharmacy by **September 8, 2020**. For **Regular Decision**, the preferred application deadline for scholarship consideration is **February 1, 2021** and the deadline for applicants to submit completed applications online to PharmCAS and to the College of Pharmacy is **April 1, 2021**. The earlier the application is submitted, the sooner it will be processed and considered by the Admissions Committee. For detailed admissions information, see the Prospective Students page on the College of Pharmacy website, <u>http://rx.uga.edu/students/prospective-pharmd-students/</u>.
- 2. At least two evaluations (letters of recommendation) must be submitted directly to PharmCAS; letters sent to the College of Pharmacy will not be accepted. One recommender should be a college instructor familiar with the applicant's academic background; the other should be a health care professional, preferably a pharmacist supervisor/mentor, who can speak to the applicant's potential in the pharmacy profession.
- 3. All applicants must take the Pharmacy College Admission Test (PCAT) and have their scores sent to PharmCAS. Test dates are offered in July, September, October, November 2020, January, February and March 2021. Visit the PCAT website at <a href="https://www.pcatweb.info/">https://www.pcatweb.info/</a> for details. The summer and fall test dates are preferred so that students have the opportunity to retake the test in January, February or March if they desire. It is important, however, that applicants do not wait until the spring to take the PCAT for the first time. Students may take the PCAT as many times as they wish without penalty. Review books and courses for the PCAT are available. For more information, contact the College of Pharmacy's Office of Student Affairs, 706-542-5278, PharmDadmission@uga.edu.
- 4. All applicants should be prepared for an on-campus interview with faculty members. During the interview, students may be asked to discuss their academic background, reasons for selecting pharmacy as a profession, plans upon graduation, work experience, leadership experience, and extracurricular activities. Verbal and written communication skills also will be evaluated.

If on-site interviews are not possible due to campus closures or campus restrictions, interviews may be conducted with candidates via videoconferencing technology.

# **APPLICATION TIMELINE**

- July 14, 2020 PharmCAS (<u>http://www.pharmcas.org/</u>) and the University of Georgia College of Pharmacy applications (<u>http://rx.uga.edu/students/prospective-students/</u>) open
- September 8, 2020 Early Decision applications deadline for PharmCAS and UGA College of Pharmacy. Both applications have the same deadline.
- Mid-September 2020 Admissions interviews begin
- October 23, 2020 Early Decision notifications sent to applicants
- February 1, 2021 Preferred application deadline for scholarship consideration.

- April 1, 2021 Regular Decision applications deadline for PharmCAS and the University of Georgia College of Pharmacy. **Both applications have the same deadline.**
- May 2021 Admissions interviews end
- April/May/June 2021 Advising sessions for incoming students
- August 2021 (*tentative*) New Student Orientation
- August 2021(*tentative*) White Coat Ceremony
- August 18, 2021 Classes Begin

# **TUITION, FEES, AND OTHER EXPENSES**

Expenses for Doctor of Pharmacy students are higher than for students in most other programs at the University of Georgia. The following is an **ESTIMATE of expenses for the 2020-2021** academic year:

Georgia Resident Expenses (off-campus)						
First Year Second Year* Third Year Fourth Year						
\$16,636	\$18,718	\$16,636	\$23,923			
\$1,924	\$2,370	\$1,924	\$2,370			
\$8,680	\$9,547	\$8,680	\$11,573			
\$4,036	\$4,439	\$4,036	\$5,381			
\$250	\$312	\$250	\$343			
\$2,116	\$2,327	\$1,254	\$13,171			
\$4,582	\$4,479	\$3,972	\$5,596			
\$38,224	\$42,192	\$36,752	\$62,357			
	First Year           \$16,636           \$1,924           \$8,680           \$4,036           \$250           \$2,116           \$4,582	First Year         Second Year*           \$16,636         \$18,718           \$1,924         \$2,370           \$8,680         \$9,547           \$4,036         \$4,439           \$250         \$312           \$2,116         \$2,327           \$4,582         \$4,479	First YearSecond Year*Third Year\$16,636\$18,718\$16,636\$1,924\$2,370\$1,924\$8,680\$9,547\$8,680\$4,036\$4,439\$4,036\$250\$312\$250\$2,116\$2,327\$1,254\$4,582\$4,479\$3,972			

Average Tuition & Fees: Approximately \$21,125/year

\*Second-year and fourth-year: Fall, Spring and Summer semesters combined

Non-resident Expenses (off-campus)						
First Year Second Year* Third Year Fourth Year*						
\$37,344	\$42,012	\$37,344	\$53,682			
\$1,924	\$2,370	\$1,924	\$2,370			
\$8,680	\$9,547	\$8,680	\$11,573			
\$4,036	\$4,439	\$4,036	\$5,381			
\$250	\$312	\$250	\$343			
\$2,760	\$3,036	\$1,898	\$14,029			
\$4,582	\$4,479	\$3,972	\$5,596			
\$59,576	\$66,195	\$58,104	\$92,974			
	First Year           \$37,344           \$1,924           \$8,680           \$4,036           \$250           \$2,760           \$4,582	First Year         Second Year*           \$37,344         \$42,012           \$1,924         \$2,370           \$8,680         \$9,547           \$4,036         \$4,439           \$250         \$312           \$2,760         \$3,036           \$4,582         \$4,479	First YearSecond Year*Third Year\$37,344\$42,012\$37,344\$1,924\$2,370\$1,924\$8,680\$9,547\$8,680\$4,036\$4,439\$4,036\$250\$312\$250\$2,760\$3,036\$1,898\$4,582\$4,479\$3,972			

Average Tuition & Fees: Approximately \$44,743/year \*Second-year and fourth-year: Fall, Spring and Summer semesters combined The above estimate does not reflect the cost of mandatory health insurance since most Pharm.D. students waive those charges while covered on their parents' health insurance. Students who do pay for their own health insurance should contact the University of Georgia Office of Student Financial Aid to request a cost of attendance adjustment.

The University reserves the right to change its tuition and fees at the beginning of any academic term and without previous notice. This right will be exercised cautiously. Visit <u>http://busfin.uga.edu/bursar/bursar\_quick\_links/</u> for additional information.

# FINANCIAL AID

# UGA STUDENT FINANCIAL AID OFFICE

Requests for student aid are handled through the University of Georgia Office of Student Financial Aid. The office is open year-round (except for holidays), and the hours of operation are 8:00 AM - 5:00 PM, Monday through Friday. For more information about financial aid and eligibility, you may call the Office of Student Financial Aid at (706) 542-6147 or contact the office at <u>osfa@uga.edu</u>.

# HOPE SCHOLARSHIP PROGRAM

Students who meet the criteria for the HOPE Scholarship and have not exceeded the maximum number of credit hours under the HOPE program may continue their HOPE Scholarship in the pharmacy curriculum. Pharmacy students have an eligibility limit of 127 semester hours (which includes both pre-pharmacy and pharmacy coursework) under the HOPE guidelines. Specific questions regarding eligibility for the HOPE Scholarship should be directed to the University of Georgia Office of Student Financial Aid.

# SCHOLARSHIPS FOR INCOMING FIRST-YEAR STUDENTS

There are two types of scholarships for *incoming first-year students*:

- *Merit-based Scholarships:* Recipients will be determined based on a comprehensive review of their admission application materials and on-site admission interviews.
- *Need-based Scholarships:* Recipients will be selected primarily based on financial need.

Applicants invited for on-site admission interviews will be asked to submit a scholarship application. Priority scholarship consideration will be given to applicants who apply early for admission.

Scholarships awarded through the College of Pharmacy for *currently-enrolled students* are listed online at <u>https://rx.uga.edu/students/current-pharmd-students/</u>. Scholarship awards are subject to change based on availability. The online scholarship application process must be completed in order to be eligible for any scholarship. In the spring semester, students receive an email communication from the Office of Student Affairs, which includes a link to the application and details regarding completion of scholarship submissions.

If you have any questions regarding student scholarships, please contact Ms. Gloria Strait in the Office of Student Affairs at <u>gstrait@uga.edu</u>.

# **PRE-PHARMACY CURRICULUM**

The following courses (or their equivalents) are required for admittance into the Pharm.D. program. A total of 69 hours is required to enroll in the program and these may be taken at the accredited institution of your choice. A minimum of 35 hours of these required courses must be completed at the time of application. For course descriptions, please visit http://www.bulletin.uga.edu.

	Credit Hours	UGA Equivalent Course
<u>SCIENCES (36 hours)</u>		
General Chemistry I w/Lab	4	CHEM 1211 & 1211L or 1311H & 1311L
General Chemistry II w/Lab	4	CHEM 1212 & 1212L or 1312H & 1312L
Organic Chemistry I w/Lab	4	CHEM 2211 & 2211L or 2311H & 2311L
Organic Chemistry II w/Lab	4	CHEM 2212 & 2212L or 2312H & 2312L
Biochemistry (lab optional)	3	BCMB 3100 or 4010
Principles of Biology I w/Lab	4	BIOL 1107 & 1107L or 2107H & 2107L
Principles of Biology II w/Lab	4	BIOL 1108 & 1108L or 2108H & 2108L
Microbiology (lab optional)	3	MIBO 2500, 3000, or 3500
Anatomy and Physiology	6	CBIO 2200 and 2210
(lab optional)		
<u>OR</u>		
Anatomy (lab optional)	3	CBIO 3000 or 3010
Physiology (lab optional)	3	CBIO 3710, PMCY 3000 or VPHY 3100

#### **<u>QUANTITATIVE REASONING (6 hours)</u>**

Calculus	3	MATH 2200 or 2250
Statistics	3	STAT 2000/2100H

# HUMANITIES & SOCIAL SCIENCES (18 hours)

English Composition I	3	ENGL 1101
English Composition II	3	ENGL 1102 or 1050H or 1060H
Speech Communication	3	COMM 1110/2150H or 1500/2550H
Economics	3	ECON 2105/H or 2106/H
Social Sciences	6	

# WORLD LANGUAGES & CULTURE (9 hours)

9 credit hours Select courses from university list available at http://bulletin.uga.edu/GenEdCoreBulletin.aspx

# **DOCTOR OF PHARMACY (PHARM.D.) CURRICULUM**

# FIRST PROFESSIONAL YEAR

Course Number	Course Title	Credit Hours
Fall Semester		
PHRM 3030	Essentials of Pharmacy Practice I	3
PHRM 3300	Pharmaceutical Calculations	2
PHRM 3310	Principles of Pharmacology I	2 2
PHRM 3540	Nutrition and Lifestyle Intervention in Pharmacy Practice	2
PHRM 3550	Human Pathophysiology	4
PHRM 3600	Immunology and Biotechnology	2
PHRM 3900	Pharmacy Intercommunications	2 2
PHRM 3940	Survey of Drug Information	<u>1</u>
		18
Spring Semester		
PHRM 3040	Essentials of Pharmacy Practice II	3
PHRM 3070	Medicinal Chemistry I	2
PHRM 3320	Principles of Pharmacology II	2
PHRM 3500	Career Opportunities in Pharmacy	1
PHRM 3520	Interpreting Clinical Laboratory Tests	1
PHRM 3750	Pharmacy and the United States Health Care System	3
PHRM 3820	Self-Care, Nonprescription Drugs, and Herbal Products	3
PHRM 3950	Introductory Pharmacy Practice Experience I	<u>3</u>
		18

# SECOND PROFESSIONAL YEAR

Course Number	Course Title	Credit Hours
Fall Compaten		
Fall Semester		
PHRM 4030	Essentials of Pharmacy Practice III	3
PHRM 4060	Medicinal Chemistry II	2
PHRM 4200	Fundamentals of Pharmaceutics I: Physical	3
	Pharmacy and Dosage Form Design	
PHRM 4430	Principles of Pharmacology III	3
PHRM 4700	Statistical Approaches to Drug Literature Evaluation	2
PHRM 4870	Pharmacotherapy I	3
Electives		<u>2</u>
		18

# **Spring Semester**

PHRM 4040	Essentials of Pharmacy Practice IV	3
PHRM 4180	Infectious Disease & Antitumor Agents	3
PHRM 4211	Pharmaceutics II: Biopharmaceutics and Pharmacokinetics	4
PHRM 4300	Physical Assessment	2
PHRM 4880	Pharmacotherapy II	3
Electives		<u>2</u>
		17

# Summer SemesterPHRM 4650Health System IPPE

# THIRD PROFESSIONAL YEAR

Course Number	Course Title	Credit Hours
Fall Semester		
PHRM 5160	Applied Pharmacy Practice I	2
PHRM 5390	Pharmacogenomic Therapies	2
PHRM 5650	Pharmacy Care Management	2
PHRM 5750	Drug Interactions and Adverse Drug Reactions	2
PHRM 5880	Pharmacotherapy III	4
PHRM 5920	Clinical Seminar	(1)
Electives		<u>4</u>
		16-17

# **Spring Semester**

PHRM 5170	Applied Pharmacy Practice II	2
PHRM 5420	Pharmacy Health Services Outcomes	2
PHRM 5560	Integrated Patient Care	2
PHRM 5680	Pharmacy Law and Ethics	2
PHRM 5890	Pharmacotherapy IV	4
PHRM 5920	Clinical Seminar	(1)
PHRM 5950	Advanced Drug Information and Drug Policy Management	2
Electives		<u>3</u>
		17-18

# FOURTH PROFESSIONAL YEAR

Course Number	Course Title	Credit Hours			
The fourth year consists of full-time advanced pharmacy practice experiences in institutional, community, and other patient care settings.					
Summer Semester PHRM 5901 PHRM 5902	Required Advanced Pharmacy Practice Experience I Required Advanced Pharmacy Practice Experience II	5 <u>5</u> 10			
Fall Semester PHRM 5903 PHRM 5904 PHRM 5905 PHRM 5906	(Student completes 3 of 4 Fall experiences) Required Advanced Pharmacy Practice Experience III Required Advanced Pharmacy Practice Experience IV Required Advanced Pharmacy Practice Experience V Required Advanced Pharmacy Practice Experience VI	5 5 5 <u>5</u> 15			

Spring	Semester
~ ~ · · · · · · · · · · · · · · · · · ·	N CHILCHUCK

PHRM 5907	Required Advanced Pharmacy Practice Experience VII	5
PHRM 5908	Required Advanced Pharmacy Practice Experience VIII	5
PHRM 5909	Required Advanced Pharmacy Practice Experience IX	<u>5</u>
		15

# **COURSE DESCRIPTIONS**

**NOTE:** Course offerings are subject to change.

#### PHARMACEUTICAL AND BIOMEDICAL SCIENCES

Pharmaceutical and Biomedical Sciences encompasses the basic science components related to pharmacy and medicine. Specialized areas within Pharmaceutical and Biomedical Sciences include the molecular design and synthesis of pharmacologic agents, development of analytical methodology, determination of physical and chemical properties of drug molecules, assessment of pharmacologic and toxicologic activities of drugs and chemicals, design and formulation of drug delivery systems, and characterization of the pharmacokinetics and metabolism of drugs.

Required Professional Courses

PHRM 3070. Medicinal Chemistry I. 2 hours.

Prerequisite: PHRM 3310

Drugs acting on the peripheral nervous system and cardiovascular system, including structureactivity relationships, mechanisms of action, storage, and chemical stability reactions.

#### PHRM 3300. Pharmaceutical Calculations. 2 hours.

Mathematical principles and quantitative methods utilized in the contemporary practice of pharmacy. Calculations required in the quantitative development and assessment of prescriptions, dosage forms, drug delivery systems, and drug therapy modalities applicable to pharmacy practice.

# PHRM 3310, 3320. Principles of Pharmacology I, II. 2 hours each.

Prerequisites for PHRM 3320: PHRM 3310 and PHRM 3550 Corequisite for PHRM 3320: PHRM 3070

PHRM 3310: Principles of pharmacology, including pharmacodynamics, pharmacokinetics, and drug metabolism. Actions of agents on the autonomic nervous system and significant nonprescription drugs.

PHRM 3320: Neuropharmacology and major classes of drugs acting on the central nervous system, including the clinical indication(s), mechanism and site of action, side effects, and potential drug interactions.

# PHRM 3550. Human Pathophysiology. 4 hours.

Common human diseases and their pathophysiology (at the cell, tissue, organ, and system levels). Emphasis on the etiology of the disease, the symptoms, diagnosis, and classification. Introduction to drugs used to treat these diseases.

# PHRM 3600. Immunology and Biotechnology. 2 hours.

Structure and function of the immune system and therapeutic products of biotechnology that are appropriate in patient counseling and treatment plans.

## PHRM 4060. Medicinal Chemistry II. 2 hours each.

Prerequisite: PHRM 3070

Corequisite: PHRM 4030 and PHRM 4430

Central nervous system drugs, including their physio-chemical properties, structure-activity relationships and toxicities, side effects, and drug interactions.

# PHRM 4200. Fundamentals of Pharmaceutics I - Physical Pharmacy and Dosage Form

**Design.** 3 hours. Corequisite: PHRM 4030 Fundamentals of physical pharmacy and pharmaceutical dosage form design.

# PHRM 4430. Principles of Pharmacology III. 3 hours.

Prerequisite: PHRM 3320

Corequisite: PHRM 4060

Pharmacological principles of drugs which affect the cardiovascular system, the endocrine system, the skin, bones, the GI system, and neurodegenerative diseases. Principles of toxicology will also be discussed.

# PHRM 5390. Pharmacogenomic Therapies. 2 hours.

Prerequisites: PHRM 3550 and PHRM 4880

The course will emphasize the principles and applications of pharmacogenomics, including avoiding unnecessary adverse events and tailoring appropriate medications to patients since these activities are a critical part of administering medication.

#### Elective Courses

# **PHAR 4010E. Introduction to Drugs, Biologics and Devices Regulated by the FDA.** 3 hours. Prerequisite: Permission of department

Introduction to the drugs, biologics, and devices regulated by the Food and Drug Administration

(FDA) and the pharmaceutical, biotechnology, and medical device industries. Organization of the FDA, basic understanding of regulatory framework in the U.S., including regulations and regulatory process, overview of product development, and new product applications process and post-marketing/commercialization compliance expectations.

# PHRM 4000. War on Cancer. 3 hours.

Prerequisite: Permission of department

In-depth discussions of cancer, which include the tumor biology, treatment options (surgery, radiation and chemotherapy), socioeconomic challenges, and the remaining barriers that are preventing curesin specific types of cancer.

# PHRM 5040E. Antiviral Chemotherapy. 2 hours.

The etiology, epidemiology, and characteristics of human viral diseases and the management and prevention of these diseases.

# PHRM 5190. Anticancer Therapeutics. 2 hours.

# Prerequisite: PHRM 3550

Anticancer therapeutics and patient management with a focus on the prescribing basics, adverse effects of anticancer therapeutics necessary for patient management, along with drug administration and some biology of malignant disease.

# PHRM 5350. Disaster Training for Health Care Professionals. 3 hours.

Prerequisite: Permission of department

Basic first aid and disaster relief training for future pharmacists, other health care professionals, and graduate students. First responders training and mock simulations for weapons of destruction events, including case studies, tabletop exercises, and mass casualty medical response.

# PMCY 4410E/6410E. Robotic Technology in Drug Discovery and Toxicology. 2 hours.

Designed to train students on three principal objectives which comprise the second and third stages of a drug discovery pipeline. Beyond its own course objectives, this course also serves as the first of three two-credit courses in a series that encompass aspects of the drug discovery pipeline.

# PMCY 4430E. Biopharmaceutics and Pharmacokinetics. 2 hours.

Designed to train students on three principal objectives, which comprise the second and third stages of a drug discovery pipeline. Beyond its own course objectives, this course is the last of three two-credit course series that encompass aspects of the drug discovery pipeline.

# CLINICAL AND ADMINISTRATIVE PHARMACY

The Department of Clinical and Administrative Pharmacy seeks to provide students with the knowledge and problem solving skills needed to deliver pharmaceutical care. Courses focus on the general areas of pharmacy administration and pharmacy practice. These areas provide the means for pharmacy professionals to integrate and apply prior course material to the identification and assessment of patient problems by collecting and utilizing patient information, developing solutions to patients' drug related problems, selecting and recommending therapies, and assessing outcomes. The economic, social, behavioral, and political aspects of developing and providing pharmacy care services are also explored. These areas of study prepare the student to address the complex socio-political and therapeutic challenges associated with ethical drug use.

# Required Professional Courses

# PHRM 3500. Career Opportunities in Pharmacy. 1 hour.

Pharmacy career pathways, including the necessary career development (i.e., residency/ fellowship, CE, board certification, etc.) for each path. Discussions of the role and importance of professional organizations, networking, and professional behaviors necessary to succeed in pharmacy practice.

# PHRM 3520. Interpreting Clinical Laboratory Tests. 1 hour.

Commonly used laboratory tests for each major organ system and their application for detecting disease, diagnosing medical problems, guiding treatment, and/or monitoring safety and efficacy.

# PHRM 3540. Nutrition and Lifestyle Intervention in Pharmacy Practice. 2 hours.

Evidence-based principles of nutrition and lifestyle intervention relevant to pharmacy practice.

# PHRM 3750. Pharmacy and the United States Health Care System. 3 hours.

The social, economic, and political forces that shape the environment in which health care currently is being delivered in America and how this affects the practice of pharmacy.

# PHRM 3820. Self-Care, Nonprescription Drugs, and Herbal Products. 3 hours.

Prerequisites: PHRM 3030, PHRM 3310, PHRM 3900, and PHRM 3940

Corequisite: PHRM 3040

Skills to evaluate the needs of a patient who consults a pharmacist for a recommendation of a nonprescription medication or product, including appropriate patient counseling. Guidelines on when to refer to another health care professional.

# PHRM 3900. Pharmacy Intercommunications. 2 hours.

The skills to effectively communicate with, teach, and counsel patients about their medications and health are taught. Effective communication strategies and skills are presented. Students are challenged to incorporate these skills into their own counseling and communication style. Innovative technology is employed to promote interactive patient counseling.

# PHRM 3940. Survey of Drug Information. 1 hour.

Primary, secondary, and tertiary drug information resources, including standard reference texts, computer systems and journals. Emphasis will be placed on retrieval of information and communication of a response.

# PHRM 3950. Introductory Pharmacy Practice Experience I. 3 hours.

Prerequisites: PHRM 3030 and PHRM 3900

Corequisites: PHRM 3040 and PHRM 3820

Development of pharmacy practice skills within the community pharmacy setting. Emphasis will be on prescription processing, communication skills, inventory management, third party insurance processing, student professional development, and time management.

# PHRM 4300. Physical Assessment. 2 hours.

Corequisite: PHRM 4040 Basic principles and techniques of physical assessment performed by pharmacists.

# PHRM 4650. Health System Introductory Pharmacy Practice Experience. 3 hours.

Prerequisites: PHRM 3520 and PHRM 4040

Development of pharmacy practice skills in a health system setting, focusing on exposure to health system medication use processes and pharmacy patient care services.

# PHRM 4700. Statistical Approaches to Drug Literature Evaluation. 2 hours.

Prerequisite: PHRM 3940

Basic statistical methods and analysis used to critically evaluate drug literature are discussed. Topics include statistical inference and hypothesis testing, selection of appropriate statistical tests, correlation and regression analysis, and research design. Students will apply these topics while evaluating published clinical trials, outcome studies, and materials from pharmaceutical manufacturers.

PHRM 4870, 4880. Pharmacotherapy I, II. 3 hours each. Prerequisites for PHRM 4870: PHRM 3040, PHRM 3070, PHRM 3320, PHRM 3520, and PHRM 3550 Corequisites for PHRM 4870: PHRM 4060 and PHRM 4430

Prerequisites for PHRM 4880: PHRM 4030 and PHRM 4870 Corequisite for PHRM 4880: PHRM 4040 PHRM 4870 and PHRM 4880: Pharmacotherapeutic principles and concepts applied to human disease states and conditions with emphasis on case-based problem solving.

# PHRM 5160. Applied Pharmacy Practice I. 2 hours.

Prerequisites: PHRM 4650 and PHRM 4880

Corequisite: PHRM 5880

Through a combination of practical experiences in the hospital setting as well as classroom discussions and activities, students will apply knowledge from prior required PharmD courses such as Essentials of Pharmacy Practice, Pharmacotherapy, Drug Information, etc. to a variety of patient care activities.

# PHRM 5170. Applied Pharmacy Practice II. 2 hours.

Prerequisites: PHRM 5160

Corequisite: PHRM 5890

As a continuation from Applied Pharmacy Practice I, through a combination of practical experiences in the hospital setting as well as classroom discussions and activities students will apply knowledge from prior required PharmD courses such as Essentials of Pharmacy Practice, Pharmacotherapy, Drug Information, etc. to a variety of patient care activities.

# PHRM 5420. Pharmacy Health Services Outcomes. 2 hours.

# Prerequisite: PHRM 3750

Pharmacy Health Services Outcomes exposes students to medications use from a systems perspective and strategies to improve outcomes. The course will review how personal, social, and organizational factors affect the quality of medication use and outcomes. Students will learn about processes for evaluating medication-use systems and identifying ineffective system operations.

# PHRM 5560. Integrated Patient Care. 2 hours.

# Prerequisites: PHRM 5160 and PHRM 5880

Complex patient cases in which students complete a work-up of a patient, identify and prioritize medication-related problems; and design a regimen, including monitoring parameters to resolve medication-related problems.

# PHRM 5650. Pharmacy Care Management. 2 hours.

# Prerequisite: PHRM 4040

Presentation of management principles, organizational needs, accounting practices, entrepreneurial aspects, marketing needs, and associated topics for use in future pharmacy and health care system practice milieus. The analysis of management principles as they relate to community and health-systems management.

# PHRM 5680. Pharmacy Law and Ethics. 2 hours.

# Corequisite: PHRM 5170

Laws and regulations that govern the practice of pharmacy, including those of patient care, professional conduct, business conduct, hospital practice, and the dispensing and provision of pharmaceuticals.

# PHRM 5750. Drug Interactions and Adverse Drug Reactions. 2 hours.

Prerequisite: PHRM 4880

Most common drug interactions and adverse drug reactions with an emphasis on detection, prevention, and management.

PHRM 5880, 5890. Pharmacotherapy III, IV. 4 hours each.

Prerequisites for PHRM 5880: PHRM 4880 Prerequisites for PHRM 5890: PHRM 5880

PHRM 5880 and PHRM 5890: Pharmacotherapeutic principles and concepts applied to human disease states and conditions with emphasis on case-based problem solving.

# PHRM 5901-5909. Required Pharmacy Clerkship I-IX. 5 hours each.

Prerequisite: All required and elective Pharm.D. coursework

Clinical practice in outpatient and inpatient settings with emphasis on pharmaceutical care. These courses will meet for forty hours a week for five weeks (total of 200 contact hours) during the semester.

# PHRM 5920. Clinical Seminar. 1 hour.

Prerequisites: PHRM 4700 and PHRM 4880

Elements of an effective clinical presentation, including the use of slides, overheads, handouts, and other visual aids; methods of answering audience questions; steps to evaluate the presentation.

# PHRM 5950. Advanced Drug Information and Drug Policy Management. 2 hours.

Prerequisite: PHRM 3940 and PHRM 4700.

Advanced concepts of drug information provision, including newsletter publication, ADR monitoring systems, drug usage evaluation, formulary management, and drug information retrieval and analysis.

# Elective Courses

# PHRM 4740. P&T Committee Drug Evaluation. 3 hours.

The purpose of this course is to provide students with an opportunity to develop a variety of skills including critical analysis of drug literature, clinical and pharmacoeconomic evaluation of drugs, and written and oral presentation of recommendations. Students will gain experience with the many of the techniques used to make effective formulary decisions in managed care settings.

# PHRM 5050. Abused Drugs. 3 hours.

The history, abuse, misuse, effects, and detection of selected drugs. Guest lecturers are invited to present their views on these subjects.

# PHRM 5080. Diabetes Disease Management. 3 hours.

Prerequisite: Permission of department Provision of diabetes education/management services to patients.

# PHRM 5100. Nuclear Pharmacy. 2 hours.

Prerequisite: Permission of department

Procedures and techniques involved in handling and use of radioisotopes in nuclear pharmacy practice.

# PHRM 5130. Entrepreneurship Beyond Dispensing. 2 hours.

#### Prerequisite: PHRM 3950

Innovative pharmacy services beyond traditional dispensing practices. Emphasis placed on identifying and evaluating new services, new businesses, and a different way to do "business."

# PHRM 5220. Health Research Methods. 2 hours.

Application of principles, practices, and strategies for conducting research in health care.

# PHRM 5250. Entrepreneurship for Pharmacists. 3 hours.

Prerequisite: Permission of department Current management and strategic issues in operating an independent pharmacy.

# PHRM 5370. Critical Care Pharmacy. 1 hour.

Prerequisite: PHRM 4880 In-depth discussions of disease states most commonly encountered in critical care patients and the associated pharmacotherapeutic management of these conditions.

# PHRM 5380. Pediatric Pharmacotherapy. 2 hours.

An overview of the health care needs of the pediatric patient, including the knowledge and skills to provide pharmaceutical care to pediatric patients in both ambulatory and inpatient settings.

# PHRM 5410E. Clinical Pharmacy Topics. 1 hour.

Prerequisite or corequisite: PHRM 3940

Topics from Pharmacy Grand Rounds lectures, including specific areas in clinical pharmacy to more global issues in healthcare. Presenters include faculty, guest lecturers, and residents; students provide written analyses of each presentation.

# PHRM 5460. Forensic Pharmacy. 2 hours.

Application of pharmacy to legal issues, including drug testing, analyzing adverse drug reactions for causation, evaluation of drug interactions, medication errors and drug effects as mitigating factors in criminal activity.

# PHRM 5540. Public Health and the Health Professions. 2 hours.

Prerequisite: Permission of department

Relationship between the public's health and the health professions, including the role of the health care professional in local, state, and national public health systems, the Healthy People 2010 program, interdisciplinary public health professional teams, and the health care professional's role in prevention programs.

# PHRM 5850. Introduction to Postgraduate Residency Training. 2 hours.

Prerequisite or corequisite: PHRM 5880

In-depth description of residency training to prepare students to seek and obtain a residency position upon graduation. Course format includes informal lecture, panel discussion, written assignments, and competencies.

#### **INTERDEPARTMENTAL COURSES**

Required Courses PHRM 3030, 3040. Essentials of Pharmacy Practice I, II. 3 hours each. Prerequisites for PHRM 3040: PHRM 3030, PHRM 3300 and PHRM 3900 Corequisite for PHRM 3040: PHRM 3820

PHRM 3030 and PHRM 3040: Introduction to essential clinical, professional, and practice-based skills needed to provide pharmacy care.

# PHRM 4030, 4040. Essentials of Pharmacy Practice III, IV. 3 hours each.

Prerequisites for PHRM 4030: PHRM 3040 and PHRM 3520 Corequisite for PHRM 4030: PHRM 4870

Prerequisite for PHRM 4040: PHRM 4030 Corequisites for PHRM 4040: PHRM 4211, PHRM 4300, and PHRM 4880

PHRM 4030 and PHRM 4040: Introduction to essential clinical, professional, and practice-based skills needed to provide pharmacy care.

# PHRM 4180. Drug Therapy of Infectious Disease. 3 hours.

Corequisite: PHRM 4040

Chemistry, spectrum of activity, place in therapy, stability, incompatibilities, and toxicities of antibacterials, antivirals, and antibiotics.

# PHRM 4211. Pharmaceutics II: Biopharmaceutics and Pharmacokinetics. 4 hours.

Prerequisites: PHRM 3300 and PHRM 4200

Corequisite: PHRM 4040

Basic concepts associated with drug absorption, distribution, metabolism, excretion, and transport with an emphasis on compartmental modeling related to dosing of drugs. Specific disease states that alter drug disposition.

# Elective Courses

**PHRM 5210. Special Topics in Pharmacy.** 1-3 hours. Repeatable for maximum 12 hours credit.

Prerequisite: Permission of department.

Specialized pharmaceutical systems, processes and techniques, including assignment of current literature and student presentations.

*Topic offerings are subject to change.* Previous special topics offered include: Advanced Compounding Training Program, Challenging Therapeutics in Today's Healthcare System, Dosing in Special Populations, Hepatitis Clinic, Infectious Disease Pharmacotherapy, Interprofessional Education, Pharmaceutical Care & Compounding Products for Veterinary Patients, Pharmaceutical Economy & Policy, Pharmacy Recruitment Strategies for PharmD Students, Psychopharmacology and Wellness.

# PHRM 5270E. Introduction to Veterinary Pharmacy. 3 hours

Integration of veterinary pharmacology information with critical evaluation of the variances between common human versus animal pharmaceutical dosing. Students will analyze

prescriptions for appropriateness and legal issues as well as demonstrate appropriate counseling skills.

# PHRM 5580. Academic Pharmacy. 2 hours.

Designed to better acquaint students with career opportunities in academic pharmacy and to provide a forum for students to explore issues pertaining to the structure and function of colleges of pharmacy.

**PHRM 5980. Undergraduate Research Problem.** 1-3 hours. Repeatable for maximum 12 hours credit.

Prerequisite: Permission of department

An introduction to research methods. A problem will be assigned and the student will perform library and laboratory work and write up results.

*Research offerings are subject to change.* Previous research topics offered include: Ambulatory Care, Cancer & Chemical Biology, Critical Care Pharmacotherapy, Drug Safety & Special Populations, Oncology, Outreach to Underserved Populations, Public Health Outreach, Women's Health and Writing in Clinical & Experimental Therapeutics.

# **PRACTICE EXPERIENCE**

The experience programs are designed to develop professional practice skills in a variety of patient care settings. It is divided into two components: introductory and advanced pharmacy practice experiences. Students should view each experience as an opportunity to incorporate learned didactic information into the development of the skills necessary to be a competent pharmacy practitioner.

Introductory pharmacy practice experiences (IPPEs) are incorporated into courses offered during the first three years of the Doctor of Pharmacy curriculum. These experiences are designed to provide students with a better understanding of how pharmacy relates not only to patients but also to other health care disciplines. A variety of teaching strategies are utilized to provide experiences both on and off campus. Students should be aware that experiences may be scheduled outside of normal class time. There are two 3-week experiential blocks assigned during the curriculum, one in community and one in health system pharmacy. Efforts will be made to place students at approved sites within a 50 mile radius of their preferred Georgia locations. However, this is subject to site and preceptor availability. Other IPPEs completed during the Doctor of Pharmacy program include, but are not limited to, ambulatory care, immunization administration, inpatient pharmacy care services, pharmacy residency exposure, standardized patients, disaster preparedness and professional advocacy.

Advanced pharmacy practice experiences (APPEs) comprise the final three semesters of the Doctor of Pharmacy program. Students assigned to one of the 2+2 programs will attend P3 classes at their respective satellite campuses and complete their P3 IPPEs and P4 APPEs within the assigned geographic region. For all other students, a matching system is used during the P3 fall semester to assign students to available P4 APPE regions within Georgia. Space within these

regions is limited and quotas will be set each year based upon available sites and class size. Students will be assigned to one region for the entire P4 year. Of note, over 75% of students in the lottery have been placed in one of their top 3 APPE regions over the past several years. In order to be fair to all, this policy relies on random selection. We will only consider special circumstances when required by law or Board of Regents/University of Georgia policies. Within the P4 year, students receive extensive training in various inpatient and outpatient settings. Most experiences occur in teaching hospitals, community hospitals, community pharmacies, home health settings, nursing homes, public health agencies, and managed care companies. Students apply the knowledge and skills gained in the first 3 years of the curriculum to design, implement, monitor, evaluate, and modify patient pharmacotherapeutic plans based upon scientific principles to ensure effective, safe, and economical patient care.

In order to be eligible to participate in the experience program activities, students must submit proof of the following: immunizations (MMR, Tdap, tetanus, immunity for hepatitis B, varicella zoster immunization or immunity), tuberculin skin or blood testing, a valid Georgia pharmacy intern license, physical exam, CPR certification, professional liability insurance, and health insurance coverage. Some practice sites require students to obtain/undergo a criminal background check and/or drug screening prior to beginning an experience. Students whose background check and/or drug screen results do not meet the site acceptance requirements will be prohibited from completing an experience at that site which could subsequently lead to a delay in student progression. Students are responsible for costs associated with any of these or other site clearance requirements.

Students should be aware that these requirements are subject to change as alterations occur in the affiliation agreements with participating practice sites.

# **PHARMACY INTERNSHIP**

In order to become licensed to practice pharmacy in the state of Georgia, 1500 hours of internship must be earned as a pharmacy intern; credit for internship may be received only after a student has been licensed by the Georgia State Board of Pharmacy as a pharmacy intern. Application for a pharmacy intern license can only be made once a student has enrolled in a college of pharmacy. An intern license is required for participation in all patient care experiences.

The Georgia Board of Pharmacy, 2 Peachtree Street, NW 6<sup>th</sup> Floor, Atlanta, GA 30303 (Phone: 404-651-8000), must be contacted in order to receive an intern license. Applications can be obtained from the Board of Pharmacy website at https://gbp.georgia.gov/.

# **STUDENT ORGANIZATIONS**

#### ACADEMY OF MANAGED CARE PHARMACY

The Academy of Managed Care Pharmacy (AMCP) is a professional association of pharmacists and associates who serve patients and the public through the promotion of wellness and rational drug therapy by the application of managed care principles. AMCP empowers their members to develop leadership, clinical, and business skills through varied opportunities at the local, regional, and national level.

#### ACADEMY OF STUDENT PHARMACISTS

The Academy of Student Pharmacists (ASP) is the UGA subdivision of the national Academy of Student Pharmacists, which is the national professional society of pharmacy students in the United States and an official subdivision of the American Pharmacists Association (APhA). ASP is the professional organization in which you have a voice that can be heard from local chapter meetings to state, regional, and national meetings.

# CHRISTIAN PHARMACISTS FELLOWSHIP INTERNATIONAL

The Christian Pharmacists Fellowship International (CPFI) is an interdenominational ministry of individuals working in all areas of pharmaceutical service and practice. The mission of CPFI is to bring about spiritual growth and the advancement of knowledge and ethics in the service and practice of pharmacy by providing the resources, tools, and expertise necessary to challenge, encourage, and promote the integration of Christian principles and standards within that practice.

# COLLEGE OF PSYCHIATRIC AND NEUROLOGIC PHARMACISTS

The College of Psychiatric and Neurologic Pharmacists (CPNP) is dedicated to shedding light on the issues facing psychiatric and neurologic pharmacy. Its main goal is to spread awareness to students and the community.

#### **DEAN'S STUDENT ADVISORY COUNCIL**

The Dean's Student Advisory Council (DSAC) serves as a resource for the Dean pertaining to the enhancement of the College of Pharmacy, its programs, and the profession of pharmacy. The president and vice president (or equivalent) of each of the student organizations in the College and two members from each professional year make up the membership of the DSAC.

#### GEORGIA SOCIETY OF HEALTH-SYSTEM PHARMACISTS

The UGA student chapter of the Georgia Society of Health-System Pharmacists (GSHP) serves as a forum to provide students with information on careers in hospital pharmacy and other organized health care delivery systems. Speakers from area hospitals discuss subjects related to institutional pharmaceutical care and offer insight into specific areas of hospital pharmacy practice.

#### **INDUSTRY PHARMACISTS ORGANIZATION**

The UGA Chapter of the Industry Pharmacists Organization (IPhO) is focused on advancing the careers of aspiring industry pharmacists. Chartered in 2018, our chapter prides itself on providing members with resources, networking events, and access to opportunities and representatives in the industry. Throughout the year numerous professionals in different areas of pharmaceutical industry give presentations to members on their careers and similar career

options for pharmacists. National members are invited to partake in webinars, which cover topics like fellowship positions and how to best prepare for post-graduate industry pathways. A key event in our chapter is a round table networking event which allows students to communicate with current industry pharmacists and better prepare themselves for the field. Going forward, IPhO will continue to have a place at UGA because this is an area of pharmacy where students have demonstrated a strong interest in growth for our school and its curriculum, and we hope that it will help to better prepare students for successful careers within industry pharmacy.

# KAPPA PSI

Kappa Psi is a national pharmaceutical fraternity which had its beginning in 1879. Since that time, the brothers of Kappa Psi have formed a total of more than 95 collegiate chapters and 69 graduate chapters. At UGA, the Gamma Phi chapter was chartered in 1951 and became the forty-fourth collegiate chapter nationally.

# LAMBDA KAPPA SIGMA

Lambda Kappa Sigma (LKS) is a progressive and growing international professional fraternity for pharmacy women. It is a vital and significant force among pharmacy women and has the distinction of being the oldest and largest pharmaceutical fraternity for women in the world. The Alpha Kappa chapter at UGA was established in 1958.

#### NATIONAL COMMUNITY PHARMACISTS ASSOCIATION

The National Community Pharmacists Association (NCPA) is a national group which represents the interests of independent pharmacy. It is the goal of our student chapter to educate the student body on the opportunities that independent pharmacy provides and enable them through networking and other activities to be able to take advantage of the opportunities available.

# NATIONAL HISPANIC PHARMACISTS ASSOCIATION (NHPA)

NHPA UGA College of Pharmacy Student Chapter was founded in 2019 with the purposes of coordinating programs that will improve the healthcare awareness of minority communities, developing a positive image of minority health professionals and defining the future role of minority health professionals in the community.

# PHI DELTA CHI

Phi Delta Chi (PDC) is a coed professional fraternity of pharmacy whose goals are to advance our chosen profession and to foster a feeling of brotherhood. Founded in 1883 at the University of Michigan, Phi Delta Chi was the first Greek letter organization established for members of pharmacy only. The UGA chapter, Alpha Iota, was founded in 1937.

# PHI LAMBDA SIGMA

Phi Lambda Sigma (PLS), the Pharmacy Leadership Society, was founded in 1965 at Auburn University. The society is presently the only organization of its kind in existence. The Delta chapter of Phi Lambda Sigma was organized at UGA in 1974.

# **RHO CHI SOCIETY**

The Rho Chi Society is the national pharmacy honor society that recognizes academic excellence of pharmacy students. Students must have completed at least three semesters in pharmacy and have a grade point average in the top 20% of their class. The Alpha Kappa chapter was founded at UGA in 1948.

#### STUDENT COLLEGE OF CLINICAL PHARMACY

The mission of the Student College of Clinical Pharmacy (SCCP) is to educate student pharmacists about opportunities to further their careers both during and after pharmacy school and to further develop student member's clinical skills by reviewing various educational topics. Meetings often include information on clinical pharmacy topics, residencies, and research opportunities.

# STUDENT DIABETES CLUB

The Student Diabetes Club (SDC) is a newly founded organization that promotes an increased understanding of diabetes, a disease state that affects over 25 million children and adults in the United States. Our objective is to encourage pharmacy students to become more clinically oriented to diabetes care through education and through community outreach.

#### STUDENT NATIONAL PHARMACEUTICAL ASSOCIATION

The Student National Pharmaceutical Association (SNPhA) is an educational and service organization dedicated to the pharmacy profession, professional development, and the full participation of a diverse student body in pharmacy and other health-related professions.

#### STUDENT ONCOLOGICAL ADVOCATES IN PHARMACY

Student Oncological Advocates in Pharmacy (SOAP) is a professional organization at the University of Georgia that was founded in fall of 2012. Its main purpose is to increase awareness of cancer, treatment of cancer, and the people behind the disease. SOAP's primary philanthropic organization is the Winship Cancer Institute at Emory University Hospital in Atlanta.

# STUDENT SOCIETY OF PEDIATRIC ADVOCATES

The mission of Student Society of Pediatric Advocates (SSPA) is to bring awareness to the proper use of medication therapy in pediatric populations through various service and educationbased initiatives. Overall, SSPA advocates for the safety and happiness of young patients while learning and having fun along the way.

# **CONTACT INFORMATION**

#### **PHARM.D. ADMISSIONS**

Office of Student Affairs College of Pharmacy The University of Georgia Pharmacy South 115 250 W. Green Street Athens, GA 30602 Phone: 706-542-5278 Email: <u>PharmDadmissions@uga.edu</u> Website: www.rx.uga.edu

#### **UNIVERSITY HOUSING**

The University of Georgia Russell Hall 515 Baxter Street Athens, GA 30602 Phone: 706-542-1421 Website: www.uga.edu/housing

#### **STUDENT ACCOUNT PAYMENTS**

Bursar and Treasury Services Division The University of Georgia Business Services Building 424 E. Broad Street Athens, GA 30602 Phone: 706-542-2965 Website: http://busfin.uga.edu/bursar/

#### **UNDERGRADUATE ADMISSIONS**

Office of Undergraduate Admissions The University of Georgia Terrell Hall 210 S. Jackson Street Athens, GA 30602 Phone: 706-542-8776 Website: www.admissions.uga.edu

#### FAMILY AND GRADUATE HOUSING

University Village Housing Office The University of Georgia 710 East Campus Road Athens, GA 30602 Phone: 706-542-1473 Website: www.uga.edu/housing

#### SCHOLARSHIPS AND LOANS

Office of Student Financial Aid The University of Georgia 220 Holmes/Hunter Academic Building Athens, GA 30602 Phone: 706-542-6147 Website: https://osfa.uga.edu/