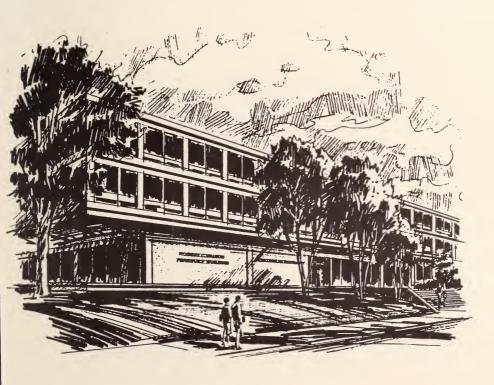
# The University of Georgia College of Pharmacy

Bulletin 1998 - 2000



A Unit of the University System of Georgia



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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 Claude-Leonard Davis, Director of the UGA Equal Opportunity Office at 3 Peabody Hall, Athens, Georgia 30602-1622. 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.

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.

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

#### **ACADEMIC CALENDAR 1998-2000**

#### FALL SEMESTER

#### Orientation Classes Begin Holiday Midpoint of Semester 12-week Courses End Final Exams for 12-week Courses Thanksgiving Recess Classes End

Final Exams

#### 1998-1999

Friday, August 21 Monday, August 24 Monday, September 7 Wednesday, October 14 Friday, November 13
November 16-18

#### November 25-27 Monday, December 14 December 18

#### 1999-2000

Friday, August 20 Monday, August 23 Monday, September 6 Wednesday, October 13 Tuesday, November 12

November 15-17 November 24-26 Monday, December 13 December 15-17

#### SPRING SEMESTER

#### Classes Begin Holiday Midpoint of Semester Spring Break 12-week Courses End Final Exams for 12-week Courses Classes End

## Final Fxams

#### 1998-1999

Thursday, January 7
Monday, January 18
Wednesday, March 3
March 6-14
Tuesday, April 6

April 8, 9, 12	
Monday, May 3	
May 4-6	

#### 1999-2000

Thursday, January 6 Monday, January 17 Wednesday, March 1 March 4-12 Tuesday, April 4

April 6, 7, 10 Friday, April 28 May 2-4

This calendar is correct as of the date of this publication, but may be subject to change during the next two years. Please refer to the Schedule of Classes and/or other special announcements that may be forthcoming.

#### THE UNIVERSITY SYSTEM OF GEORGIA

The University System of Georgia includes 34 state-sponsored, public institutions located throughout Georgia --19 universities and 15 two-year colleges.

A 16-member constitutional Board of Regents — one from each of the state's 11 Congressional Districts and five from the state-at-large — governs the University System which was established in 1931. Board members are appointed by the Governor, subject to state senate confirmation, for seven year terms.

The Chairperson, the Vice Chairperson, and other officers of the Board are elected by its membership. The Chancellor, who is not a Board member, is the chief executive officer of the Board and chief administrative officer of the University System.

The overall programs and services of the University System are offered through three major components: Instruction; Public Service/Continuing Education; Research.

Board of Regents' policies for government, management and control of the University System and the Chancellor's administrative actions provide institutions a high degree of autonomy. The President is the executive head of each institution and is recommended by the Chancellor and appointed by the Board.

The University System Advisory Council, with 34 committees, engenders continual dialogue on major academic and administrative matters and makes recommendations to the Chancellor, who transmits them to the Board as appropriate. regarding academic and administrative operations in the System. The Council consists of the Chancellor, the Vice Chancellor, and all Presidents as voting members. It includes other officials of institutions as nonvoting members. The Council's 21 academic and 13 administrative committees are composed of institutional representatives, typically one from each unit, and deal with matters of System-wide application.

Matriculation fees and nonresident tuition fees for students at all institutions are established by the Board of Regents. All students pay matriculation fees while out-of-state students pay non-resident tuition in addition. Other fees for student services and activities are established by institutions, subject to Board of Regents' approval. Non-mandatory fees established by institutions are subject to approval of the

#### THE COLLEGE OF PHARMACY

#### OFFICERS OF ADMINISTRATION

- Feldman, Stuart, Ph.D., Professor and Dean
- Francisco, George Elden Jr., Pharm.D., Associate Professor and Associate Dean
- DiPiro, Joseph Thomas, Pharm.D., Professor and Assistant Dean
- Duke, Kenneth Martin, M.B.A., Clinical Assistant Professor and Assistant to the Dean
- Jones, Lori Ann, Pharm.D., Clinical Assistant Professor and Director of Experience Programs
- Tambrallo, Laura Jeanne, D.V.M., Director, Animal Resources
- Thomas, Patricia Cole, B.S., Clinical Pharmacy Associate and Assistant to the Dean

#### THE FACULTY

- Boudinot, Frank Douglas, Ph.D., Professor and Department Head
- Bartlett, Michael Griffith, Ph.D., Assistant Professor
- Beach, Joseph Warren, Ph.D., Assistant Professor
- Boudinot, Sarah Frances, B.S., Clinical Assistant Professor
- Bruckner, James Victor, Ph.D., Professor Bunce, Opal Rebecca, Ph.D., Associate Professor
- Capomacchia, Anthony Cessare, Ph.D., Associate Professor and Graduate Coordinator
- Chu, Chung Kwang, Ph.D., Professor Dallas, Cham Edwards, Ph.D., Associate Professor and Director, Interdisciplinary Toxicology Program
- Greenspan, Phillip, Ph.D., Associate
  Professor
- Hartle, Diane Kathleen, Ph.D., Associate Professor

- Iturrian, William Ben, Ph.D., Associate Professor
- Jun, Hung Won, Ph.D., Professor
- Lu, Donghao Robert, Ph.D., Associate Professor
- Price, James Clarence, Ph.D., Professor Reigle, Thomas George, Ph.D., Associate Professor
- Ruenitz, Peter Carmichael, Ph.D., Professor
- Stewart, James Thomas, Ph.D., Professor Taylor, Ethan Will, Ph.D., Associate Professor
- White, Catherine Ann, Ph.D., Associate Professor
- DiPiro, Joseph Thomas, Pharm.D., Professor and Department Head
- Perri, Matthew III, Ph.D., Professor and Associate Department Head
- Chisholm, Marie Annette, Pharm.D.,
- Assistant Professor
- Cobb, Henry Herbert III, Ph.D., Clinical Assistant Professor
- Cooper, James Weaver Jr., Ph.D., Professor
- Duke, Kenneth Martin, M.B.A., Clinical Assistant Professor
- Hawkins, David Warner, Pharm.D.,
  Professor and Assistant to the Dean
- Kotzan, Jeffrey Anthony, Ph.D., Professor
- Langford, Richard Alan, Academic Professional and Clinical Assistant
- Longe, Robert Leon, Pharm.D., Professor Martin, Bradley Charles, Ph.D., Associate Professor
- May, Jere Russell, Pharm.D., Adjunct Associate Professor
- McCall, Charles Yates, Pharm.D., Associate Professor
- McCombs, Janet, Pharm.D., Clinical Assistant Professor
- Miller, Allison Winecoff, Pharm.D., Assistant Professor

Nichols, Gloria June, Ph.D., Assistant Professor

Poirier, Sylvie, Ph.D., Assistant Professor Reese, Ronald Lee, Pharm.D., Clinical Assistant Professor

Schramm, Linda Christine, B.S., Clinical Assistant Professor

Spruill, William Jerry, Pharm.D., Associate Professor

Tackett, Randall Lynn, Ph.D., Professor Taylor, Andrew Thomas, Pharm.D., Associate Professor

Terry, Alvin Vincent Jr., Ph.D., Assistant Professor

Thomas, Patricia Cole, B.S., Clinical Assistant Professor and Assistant to the Dean

Ujhelyi, Michael Robert, Pharm.D., Associate Professor

Wade, William Elton, Pharm.D., Associate Professor

Warren, Flynn Wilford, M.S., Clinical Associate Professor

#### **Postgraduate Continuing Education**

Ozburn, William Michael, Ed.D., Director of Postgraduate Continuing Education and Pharmaceutical Services

Brooks, Paul Jackson, Pharm. D., Academic Professional and Director of Nontraditional Education and Development

Gammill, Charles Goodrich, Ed.D., Public Service Representative

#### GENERAL INFORMATION

#### **PURPOSE**

The College of Pharmacy provides for the comprehensive academic needs of the profession of pharmacy. The College's doctor of pharmacy degree program prepares students for the practice of pharmacy and the delivery of pharmaceutical care. Its graduate program prepares individuals for professional specialization and careers in teaching and research. The postgraduate educational needs of the profession are met through the College's continuing education and nontraditional doctor of pharmacy programs. Faculty research supports all of these programs and contributes to the advancement of the body of pharmaceutical knowledge.

#### **PROGRAM OF STUDY**

The College of Pharmacy offers the Doctor of Pharmacy degree to students who successfully complete the six-year study of prescribed courses. The first two years (pre-pharmacy) may be completed at any accredited institution of higher education. The last four years (nine semesters) are in the professional program and must be in residence at the College of Pharmacy. At least four years of study in the professional program are required by the American Council of Pharmaceutical Education.

## ADMISSION TO THE PROFESSIONAL PROGRAM

To be admitted to the professional program in the College of Pharmacy, a student must complete pre-pharmacy requirements. At the University of Georgia, the pre-pharmacy program is administered through the College of Arts and Sciences.

The two years of pre-pharmacy education require satisfactory completion of not less than 60 semester hours of academic work counting toward the pharmacy degree. In addition, students must meet the general requirements for physical education.

Applicants to the professional program must take the Pharmacy College Admission Test (PCAT). The fall offering date is the preferred time. In addition to the applicant's grade point average, the selection process will utilize the PCAT scores and recommendations. An oncampus interview may also be required. The College of Pharmacy accepts students into its professional program for fall semester only.

Application to the College of Pharmacy should be submitted by February 1.

Transcripts showing all college work taken should accompany the application.

Students may apply to the College of Pharmacy when they have completed three semesters of academic work. Applicants who are accepted but do not attend for the accepted term must repeat the admission process for a future date.

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.

#### PRE-PHARMACY CURRICULUM

For specific course descriptions and prerequisites, see University of Georgia <u>Undergraduate</u> Bulletin or visit the UGA Bulletin Website at http://bulletin.uga.edu.

<u>Ballotill</u> of Violetillo Cox (Ballotill)	VODSILO GLIII
AREA A- Essential Skills (9) Area A is satisfied by students co nine semester hours from the follow	mpleting
ENGL 1101 English Composition ENGL 1102 English Composition MATH 1113 Precalculus	1 3
AREA B - Institutional Optio (4-5 hours)  Area B is satisfied by electives set the student with approval of an addisor.  There are no prescribed courses area. Requirements can be met be requirements in Areas A, C, D, and	elected by cademic in this
AREA C- Humanities/Fine A (6 hours) Preferred course: SPCM 1100 or SPCM 1500	rts 3
Area C is satisfied by completing courses. In addition to SPCM 110 1500, students may select either humanities or fine arts course from Page 10.	00 or a
AREA D - Science, Mathematics and Technology (12 hours) Area D is satisfied by selecting two sequenced science courses with laboratories plus one four-hour mathematics course	
Preferred science courses: CHEM 1211 CHEM 1211L CHEM 1212 CHEM 1212L Preferred mathematics/technology	3 1 3 1
COURSE:	3

MATH 2200L

## AREA E - Social Sciences (12 hours)

Preferred courses: ECON 2105 or ECON 2106

3

Students who have not met the Georgia and U.S. Constitution requirement by examination should enroll in POLS 1101-1101D. Students who have not met the Georgia and U.S. History requirement by examination should enroll in one course from the following: HIST 2111, HIST 2112.

## AREA F- Courses Related to Major (20 hours)

Area F is satisfied by satisfactorily completing all of the following courses:

	HOURS		
CHEM 2211	Modern Organic		
	Chemistry I	3	
CHEM 2211L	Modern Organic		
	Chemistry		
	Laboratory I	1	
CHEM 2212	Modern Organic		
	Chemistry II	3	
CHEM 2212L	Modern Organic		
	Chemistry		
	Laboratory II	1	
BIOL 1107-1107L	Principles of		
	Biology I	4	
BIOL 1108-1108L	Principles of		
	Biology II	4	
STAT 2000	Elementary		
	Statistics	4	

In addition to the courses and hours listed in Areas A-F, one hour of physical education (PEDB) is required.

1

Additional Area C Courses	MUSI 2040. History of Popular Music.
(Humanities/Fine Arts) Select from the following list:	3 hours.  MUSI 2060. History of Rock And Roll. 3
Select from the following list.	hours.
ARHI 2100. Monuments of World Art. 3 hours.	MUSI 2080. African American Music. 3 hours.
ARTS 2000. Art Appreciation. 3 hours. ARTS 2050. Cultural Diversity in	PHIL 1000. Introduction to Philosophy. 3 hours.
American Art. 3 hours.	PHIL 1500. Logical and Critical Thinking. 3 hours.
CLAS 1000. Greek Culture. 3 hours. CLAS 1010. Roman Culture. 3 hours.	PHIL 2200. Introduction to Ethics.
CLAS 1010H.Roman Culture (Honors).	3 hours.
3 hours. CLAS 1020. Classical Mythology. 3	RELI 1001. Introduction to Judiasm, Christianity, and Islam. 3 hours.
hours. CMLT 2111. World Literature I, 3 hours.	RELI 1002. Introduction to the Religions
CMLT 2210. Western World Literature I.	of India, China and Japan.
3 hours. CMLT 2212. World Literature II. 3 hours.	3 hours. RELI 1003. Introduction to Religious
CMLT 2220. Western World Literature II. 3 hours.	Thought. 3 hours. RELI (AFAM) 2005.
CMLT 2400. Asian-American Literature. 3 hours.	Introduction to African- American Religions. 3
DANC 2010. Appreciation of Dance. 3	hours. ROML 2550. Latino Literature, Language,
hours. DRAM 2000. Appreciation of Dramatic	and Culture. 3 hours.
Art. 3 hours.	SPCM 1100. Introduction to Public
DRAM 2120. Introduction of Cinema. 3	Speaking. 3 hours. SPCM 1500. Introduction to Interpersonal
hours.  DRAM 2130. American Ethnic Cinema. 3 hours.	Communication. 3 hours.
EDES 2510. History of the Built	Additional Area D Courses (Science,
Environment I. 3 hours.	Mathematics and Technology) Select from the following list:
EDES 2520. History of the Built Environment II. 3 hours.	Select from the following list.
ENGL 2310. English Literature from the Beginnings to 1700. 3 hours.	Science Courses ASTR 1010. Astronomy of the Solar
ENGL 2320. English Literature from 1700 to the Present. 3 hours.	System. 3 hours. ASTR 1010L. Astronomy of the Solar
ENGL 2330. American Literature from the Beginnings to 1865. 3 hours.	ASTR 1020. Stellar and Galactic
ENGL 2340. American Literature from	ASTR 1020L Steller and Colortia
1865 to Present. 3 hours. ENGL 2400. Multicultural Literature in	ASTR 1020L. Stellar and Galactic Astronomy Laboratory.
America. 3 hours.	1 hour.
LING 2100. The Study of Language. 3	BIOL 1103-1103L.  Basic Concepts in Biology.
hours. MUSI 2020. Introduction to Music. 3	4 hours.
hours.	BIOL 1107-1107L.

Principles of Biology I.

4 hours.

BTNY 1210-1210L. Principles of Plant Biology. 3 hours.	GEOL 1122L. Earth's History of Global Change Laboratory. 1 hour. GEOL 1250-1250L.
CHEM 1110. Elementary Chemistry. 3 hours.	Physical Geology. 4 hours.
CHEM 1110L. Elementary Chemistry Laboratory. 1 hour.	GEOL 1260-1260L. Historical Geology.
CHEM 1211. Freshman Chemistry I. 3 hours.	4 hours. MARS 1010-1010L.
CHEM 1211L. Freshman Chemistry Laboratory I. 1 hour.	Marine Environment I. 4 hours.
CHEM 1212. Freshman Chemistry II. 3 hours.	MARS 1020-1020L.  Marine Environment II.
CHEM 1212L. Freshman Chemistry Laboratory II. 1 hour.	4 hours. PHYS 1111-1111L.
CHEM 2100. Elementary Organic Chemistry. 3 hours.	Introductory Physics Mechanics, Waves,
CHEM 2100L. Elementary Organic Chemistry Laboratory.	Thermodynamics. 4 hours.
3 hours.  CHEM 2211. Modern Organic Chemistry I. 3 hours.	PHYS 1112-1112L. Introductory Physics Electricity and Magnetism,
CHEM 2211L. Modern Organic Chemistry Laboratory I. 1 hour.	Optics Modern Physics. 4 hours.
CHEM 2212. Modern Organic Chemistry II. 3 hours.	PHYS 1211-1211L. Introductory Physics for
CHEM 2212L. Modern Organic Chemistry Laboratory II. 1 hour.	Science and Engineering Students - Mechanics,
CSCI 1302. Software Development. 4 hours.	Waves, Thermodynamics. 4 hours.
GEOG 1111. Introduction to Physical Geography. 3 hours.	PHYS 1212-1212L Introductory Physics for Science and Engineering
GEOG 1111L. Introduction to Physical Geography Laboratory.	Students - Electricity and Magnetism, Optics, Modern
3 hours.  GEOG 1112. Introduction to Weather and Climate. 3 hours.	Physics. 4 hours.
GEOG 1112L. Introduction to Weather and Climate Laboratory. 1 hour.	Mathematics and Technology Courses Select from the following list:
GEOG 1113. Introduction to Landforms. 3 hours.	CSCI 1210. Introduction to
GEOG 1113L. Introduction to Landforms Laboratory. 1 hour.	Computational Science. 3 hours.
GEOL 1121. Earth Processes and Environments. 3 hours.	CSCI 1301-1301L.  Introduction to Computing
GEOL 1121L. Earth Processes and Environments Laboratory.	and Programming. 4 hours.  MATH 1060. Mathematics of Decision Making. 3 hours.
1 hour. GEOL 1122. Earth's History of Global Change. 3 hours.	MATH 1113. Precalculus. 3 hours.

MATH 2200.	Analytic Geometry and Calculus, 3 hours.	HIST 2301. History of Western Society to1500. 3 hours.
MATH 2200L	Differential Calculus Laboratory, 1 hour	HIST 2302. History of Western Society Since 1500. 3 hours.
MATH 2210.	Integral Calculus. 3 hours.	HIST 2501. Introduction of African History to Sixteenth Century. 3 hours.
MATH 2210L	Integral Calculus Laboratory.  1 hour.	HIST 2502. Survey of African History After 1600. 3 hours.
STAT 2000.		HIST 2701. World Civilizations I. 3 hours. HIST 2702. World Civilizations II. 3 hours.
STAT 2210.		POLS 1101-1101D.  American Government. 3 hours.
Additional A Sciences)	rea E Courses (Social	PSYC 1101. Elementary Psychology. 3 hours.
	ne following list:	PSYC 2100. Survey of Black Psychology. 3 hours.
AFAM 2000.		SOCI 2500. Culture and Social
ANTH 1102.		Institutions. 3 hours. SOCI 2730. Social Interaction.
	Anthropology. 3 hours.	3 hours. SOCI (AFAM) 2820.
ANTH 2310.	Archaeology of Georgia. 3 hours.	Race and Ethnicity in America. 3 hours.
ECON 2100.	Economics of Environmental Quality. 3 hours.	SPCM 1010. Communication in Human Society. 3 hours.
ECON 2105.	Principles of Macroeconomics. 3 hours.	WMST 1110.Multicultural Perspectives on Women in the United States.
ECON 2106.	Principles of Microeconomics. 3 hours.	3 hours. WMST 2010.Introduction to Women's
ECON 2200.	Economic Development of the United States. 3 hours.	Studies. 3 hours.
EDES 1500.		
GEOG 1101-		
GEOG 1103-	Geography. 3 hours.	
GEOG 1125-	United States. 3 hours.	
GEOG 1125-	Resources, Society, and the Environment. 3 hours.	
HIST 2111.	American History to 1865. 3 hours.	
HIST 2112.	American History Since 1865. 3 hours.	
HIST 2221.	Latin American Civilization to	
HIST 2222.	1800. 3 hours. Latin American Civilization Since 1800. 3 hours.	

#### REGULATIONS

#### **HOURS**

In order to receive the Doctor of Pharmacy degree from the College of Pharmacy, a student must have earned academic credit for not less than 60 semester hours (exclusive of physical education) in pre-pharmacy course work and 105 semester hours of required professional course work.

#### PHARMACY INTERNSHIP

In order to become licensed to practice pharmacy in the state of Georgia, 1500 hours of internship must be earned as a full-time intern under the supervision of a pharmacist. Credit for internship may be received only after a student has been accepted into a college of pharmacy. Students are encouraged to satisfy internship requirements during the summers. A total of 700 hours of credit toward internship will be awarded for work performed while registered for academic credit in the Doctor of Pharmacy clerkship. An intern license is required for participation in the clerkship program.

All intern pharmacists must contact the Joint Secretary, State Examining Boards, 166 Pryor Street, S.W., Atlanta, Georgia 30303 in order to receive a license. The pharmacist supervising the intern must also notify the joint secretary that the intern is under his/her supervision.

#### **FINANCES AND AID**

#### **EXPENSES**

Expenses for pharmacy students at the University of Georgia are higher than for most other on-campus students. The following (not including travel, clothing, and incidentals) is an estimate of semester expenses.

 Total Resident Fees
 \$1,771.50

 Total Non-Resident Fees
 \$5,806.50

 Residence Halls
 \$725.00-\$955.00

 Meals
 \$602.00-\$666.00

 Books
 \$195.00

 Lab Clothing and Equipment
 \$25.00

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.

While the provisions of this catalog 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 his/her responsibility to keep himself/herself apprised of current graduation requirements for his/her particular degree program.

#### PROFESSIONAL PROGRAMS

	REQUIRED COURSES Semester Hou	rs	PHRM 4180	Drug Therapy of	
				Infectious Disease	3
First Professional Year			PHRM 4190	Chemotherapy of Cancer	2
	The first year curriculum introduces the		PHRM 4200	Principles of	
	student to "systems" on which the			Pharmaceutics I	3
	profession is based, e.g., organ systems	,	PHRM 4210	Principles of	
	drug delivery systems, health care			Pharmaceutics II	3
	systems, computer systems,		PHRM 4410	Pharmacology I	3
	communications, and medical terminology	IV.	PHRM 4420	Pharmacology II	3
	This provides the foundation on which the	e	PHRM 4850	Disease Management I	3
	second, third, and fourth professional year	ars	PHRM 4860	Disease Management II	3
	are built.		PHRM 4800	Pharmacy Seminar	1
			PHRM 4900	Clinical Applications II	1
	PHRM 3010 Introduction to Pharmacy	3		Clinical Applications IV	1
	PHRM 3050 Biochemical Basis of	0		The second secon	
	Disease I	2	Third Profes	sional Year	
	PHRM 3060 Biochemical Basis of	2		ourses utilize disease and dr	110
	Disease II	2		resented in the first and	ug
	PHRM 3100 Pharmacy Skills Lab I	2		s to make decisions for	
	PHRM 3110 Pharmacy Skills Lab II	2		tients. The student will	
	PHRM 3200 Quantitative Methods	2			-1
				armacotherapy regimens and	a
	in Pharmacy	3		monitor drug therapy for	
	PHRM 3400 Anatomy and Physiology I	3	efficacy and	safety.	
	PHRM 3410 Anatomy and Physiology II	3	DUDM 5440	Discourse Claim I	
	PHRM 3470 Pathophysiology I	3	PHRM 5140	Pharmacy Skills Lab	1
	PHRM 3480 Pathophysiology II	3		Clinical Pharmacokinetics I	
	PHRM 3620 Administrative Sciences I	3		Clinical Pharmacokinetics I	13
	PHRM 3750 Pharmacy and the U.S.		PHRM 5650	Pharmacy Care	
	Health Care System	3		Management	3
	PHRM 3800 Clinical Applications I	1	PHRM 5680	Pharmacy Law	1
	PHRM 3850 Clinical Applications II	1	PHRM 5820	Self-Care & Nonprescription	
	PHRM 3900 Pharmacy Intercom-			Medications	3
	munications	1		Physical Examination	2
	PHRM 3940 Survey of Drug Information	1		Pharmacotherapy I	4
			PHRM 5870	Pharmacotherapy II	4
	Second Professional Year		PHRM 5920	Clinical Seminar	1
	In the second year, the curriculum focuse	es	PHRM 5950	Advanced Drug Information	
	on drugstheir structure, function,			& Drug Policy Managemen	
	mechanism of action, formulation, and		Electives		6
	clinical use in patients.				
			Fourth Profe	ssional Year	
	PHRM 4050 Principles of Medicinal			Required Pharmacy	
	Chemistry I	3			24
	PHRM 4060 Principles of Medicinal	J	PHRM 5910	Selective Pharmacy	- '
	Chemistry II	3			20
	PHRM 4120 Pharmacy Skills Lab III	2		Olo Itolinos 2	_0
	PHRM 4130 Pharmacy Skills Lab IV	2			
	THINN 4130 Fliatiliacy Skills Lab IV	2			

#### **COURSE DESCRIPTIONS**

The curriculum includes professional courses, which are numbered 3000-5999.

## 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 3050,3060. Biochemical Basis of Disease I, II. 2 hours each.

Prerequisite for PHRM 3050: Permission of Department.

Corequisite for PHRM 3050: PHRM 3400,3470.

Prerequisite for PHRM 3060: PHRM 3050. Corequisite for PHRM 3060: PHRM 3410,3480.

PHRM 3050 consists of lectures and discussions concerning chemical factors affecting bioactivity of drugs, role of enzymes in biochemistry and disease, metabolism of biochemicals and drugs, and maintenance of acid/base balance. PHRM 3060 consists of lectures and discussions of lipids and prostaglandins; cholesterol and steroid hormones; biosynthesis of amino acids and nucleotides; nucleic acids, molecular genetics and biotechnology; immunology and targets for therapeutic intervention.

BARTLETT AND STAFF

PHRM 3200. Quantitative Methods in Pharmacy. 3 hours.

Prerequisite: Permission of department. Corequisite: PHRM 3110.

Mathematical principles and quantitative methods utilized in the contemporary practice of pharmacy. Basic underpinnings of algebra, calculus, and statistics are integrated with the calculations required in the quantitative development and assessment of prescriptions, dosage forms, drug delivery systems, drug studies, and drug therapy modalities.

WARREN AND MARTIN

PHRM 3400, 3410. Anatomy and Physiology I, II. 3 hours each.

Prerequisite for PHRM 3400: Permission of department.

Corequisite for PHRM 3400: PHRM 3050, 3100, 3470.

Prerequisite for PHRM 3410: PHRM 3400. Corequisite for PHRM 3410: PHRM 3060, 3110, 3480.

PHRM 3400 focuses on anatomy and physiology of the human body with emphasis on the central nervous system, autonomic nervous system, cardiovascular and renal systems. PHRM 3410 focuses on human anatomy and physiology with emphasis on the immune, endocrine, gastrointestinal and respiratory systems. REIGLE, TACKETT, DALLAS, DIPIRO, AND STAFF

PHRM 3470, 3480. Pathophysiology I, II. 3 hours each.

Prerequisite for PHRM 3470: Permission of department.

Prerequisite for PHRM 3480: PHRM 3470. Corequisite for PHRM 3470: PHRM 3050.3400.

Corequisite for PHRM 3470: PHRM 3060, 3410.

PHRM 3470: Fundamental mechanisms of human disease process, including manifestation, diagnosis and treatment. Emphasis on cardiovascular, renal, oncological, and neurological diseases. PHRM 3480: A fundamental knowledge of the human disease process including manifestations, diagnosis and treatment of endocrine, metabolic immunological and respiratory diseases.

BUNCE, WADE, LONGE, DIPIRO, AND

STAFF
PHRM 4050/6050, 4060/6060 Principles

of Medicinal Chemistry I, II. 3 hours each.

Prerequisite for PHRM 4050: PHRM 3060. Corequisite for PHRM 4050:

Undergraduate level only: PHRM 4410, 4850.

Prerequisite for PHRM 4060: PHRM 3060 or PHRM 4050/6050.

Corequisite for PHRM 4060: PHRM 4420, 4860.

PHRM 4050 encompasses drugs acting on the peripheral nervous system and peripherally acting hormones and antihormones, structure-activity relationships; mechanisms of action; storage and chemical stability reactions. Central nervous system drugs, including their physio-chemical properties, structure-activity relationships, and toxicities, side effects, and drug interactions are discussed in PHRM 4060. RUENITZ, TAYLOR, W., AND BEACH

PHRM 4200, 4210. Principles of Pharmaceutics I, II. 3 hours each. Prerequisite for PHRM 4200: PHRM 3200. Corequisite for PHRM 4200: PHRM 4120. Prerequisite for PHRM 4210: PHRM 4120. Corequisite for PHRM 4210: PHRM 4130. PHRM 4200 focuses on principles and basic concepts of biopharmaceutics and physical pharmacy as they are related to the formulation design, quality evaluation, bioavailability, and shelf-life of drugs in pharmaceutical dosage forms. PHRM 4210 focuses on principles of drug delivery

systems and dosage form design, formulation, storage, and utilization. CAPOMACCHIA, JUN, LU, PRICE

PHRM 4410, 4420. Pharmacology I, II. 3 hours each.

Prerequisite for PHRM 4410: PHRM 3060, 3410. 3480.

Prerequisite for PHRM 4420: PHRM 4410. Corequisite for PHRM 4410: PHRM 4050/6050, 4850.

Corequisite for PHRM 4420: PHRM 4060/6060, 4860.

PHRM 4410: Pharmacology of drugs which affect the autonomic nervous, cardiovascular, gastrointestinal, endocrine, and renal systems. PHRM 4420: Pharmacology of anesthetics, analgesics, hypnotic agents, anticonvulsants, muscle relaxants, antiparkinsonism agents, antianxiety and anti-pagic agents.

antianxiety and anti-panic agents, antipsychotic agents, antidepressants, central stimulants, and drugs of abuse. HARTLE, BRUCKNER, AND ITURRIAN

#### **CLINICAL AND ADMINISTRATIVE SCIENCES**

The Department of Clinical and Administrative Sciences 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, collecting and utilizing patient information, developing solutions to patients' drug related problems, selecting and recommending therapies and appropriate follow up to assess 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 sociopolitical and therapeutic challenges associated with ethical drug use.

#### Required Professional Courses

PHRM 3010. Introduction to Pharmacy.

Prerequisite: Permission of department.

Corequisite: PHRM 3100.

An overview of the United States Health Care System, drug development and distribution, and the pharmacist's roles in the system. Development of basic medication dispensing skills. WARREN

PHRM 3620. Administrative Sciences I. 3 hours.

Prerequisite: Permission of department.

Corequisite: PHRM 3100.

A colloquium of administrative topics designed to prepare pharmacy students for the professional practice environment. Topics include computer applications.

financial analysis, and a brief introduction to statistics. KOTZAN

PHRM 3750. Pharmacy and the U.S. Health Care System. 3 hours.

Prerequisite: Permission of department. 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. POIRIER

PHRM 3900. Pharmacy

Intercommunications, 2 hours,

Prerequisite: Permission of department. Basic principles and processes associated with effective verbal, nonverbal, and written communication. Utilization of innovative technologies to enhance an interactive approach to patient counseling. PERRI

PHRM 3940. Survey of Drug

Information. 1 hour.

Prerequisite: Permission of department.

Corequisite: PHRM 3110.

Accessing and utilizing 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. **McCOMBS** 

PHRM 4850, 4860. Disease Management I, II. 3 hours each.

Prerequisite for PHRM 4850: PHRM 3060. 3410 and PHRM 3480.

Corequisite for PHRM 4850: PHRM 4050/6050 and PHRM 4120, 4410. Corequisite for PHRM 4860: PHRM 4060/6060 and PHRM 4130, 4420. Drug and non-drug treatment of diseases that occur in various human organ

systems. The effect of a disease on the patient, non-drug therapy, and drugs used are covered.

CHISHOLM, COBB, REESE, SPRUILL, AND WARREN

#### PHRM 5650. Pharmacy Care

Management. 2 hours.

Discussion and analysis of management principles in relation to community and hospital pharmacy management, including planning, organizing, motivation, controlling, and marketing. **NICHOLS** 

### PHRM 5680. Pharmacy Law and Ethics.

Prerequisite: PHRM 3010 and permission of department.

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.

WARREN AND STAFF

#### PHRM 5800. Externship in Pharmacy. 4 hours each.

Prerequisite: PHRM 5140, 5260, 5820.

Experiential training in various off-campus sites, including community, hospital, and clinical pharmacy practice settings. STAFF

PHRM 5820. Self-Care &

Nonprescription Medications. 3 hours. Prerequisite: Permission of department... Corequisite: PHRM 5140. Development of skills for patient counseling on the use of nonprescription medications and products related to selfcare. Emphasis on patient consultation, product recommendation, triage, and verbal communications skills; topics in selfcare and health maintenance. McCOMBS AND STAFF

#### PHRM 5840. Physical Examination. 2 hours.

Prerequisite: PHRM 5860. Two lecture hours per week for 12 weeks: 2 laboratory hours per week for 6 weeks. Physical examination methods for evaluating and monitoring drug therapy.

Emphasis on clinical pharmacotherapy of body systems. LONGE, LANGFORD, AND STAFF

PHRM 5860, 5870. Pharmacotherapy I. II. 4 hours each.

Prerequisites for PHRM 5860: PHRM 4180/6180, 4190/6180, 4850, 4860. Prerequisites for PHRM 5870: PHRM 4180/6180, 4190/6190, 4850, 4860. Corequisite for PHRM 5860: PHRM 5140. Pharmacotherapeutic principles and concepts applied to human disease states and conditions with emphasis on casebased problem-solving. TAYLOR, T., WINECOFF, McCALL, REESE, AND STAFF

#### PHRM 5900. Required Pharmacy

Clerkships. 4 hours each.

Prerequisite: PHRM 5150, 5270/7270, 5650, 5680, 5820, 5840, 5870, 5920, 5950. Clinical practice in outpatient and inpatient settings with emphasis on pharmaceutical care.

JONES AND STAFF

#### PHRM 5910. Selective Pharmacv

Clerkships. 4 hours each.

Prerequisite: PHRM 5150, 5270/7270, 5650, 5680, 5820, 5840, 5870, 5920, 5950. Clinical practice in outpatient and inpatient settings with emphasis on pharmaceutical

JONES AND STAFF

PHRM 5920. Clinical Seminar. 1 hour. Prerequisite: Third and fourth year Doctor of Pharmacy students.

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.

**STAFF** 

PHRM 5950. Advanced Drug Information and Drug Policy Management. 3 hours.
Prerequisite: PHRM 3940, 5860.
Advanced concepts of drug information provision including newsletter publication, ADR monitoring systems, drug usage evaluation, formulary management, drug literature evaluation, and drug information retrieval and analysis.

MAY

#### **Elective Courses**

PHRM 5000. Non-traditional Medical Systems and Therapies. 3 hours. Prerequisite for PHRM 5000: Permission of department.

Non-traditional systems of health care, including alternative health care systems, herbal medications, and self-care using accepted nonprescription drugs and home remedies.

WARREN

PHRM 5100. Nuclear Pharmacy. 2 hours.

Prerequisite for PHRM 5100: Permission of department.

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

DUKE

PHRM 5110. History of Medicine and Pharmacy. 3 hours.

The history of medicine and pharmacy beginning with pre-historical discoveries and continuing through the modern era. Emphasis on the social impact of medical discoveries and the conquering of health care problems with drugs and other therapies.

WARREN

PHRM 5200. Impact of International Health Care Issues on United States Foreign Policy. 3 hours.

Prerequisite: Permission of department. Effects of diseases on indigenous populations and the precautions required of travelers; health care impacts on United States foreign policy. The Great Decisions program will serve as the topic outline for the course.

WARREN

PHRM 5960. Women's Health Care. 3 hours

Prerequisite for PHRM 5960: PHRM 3410. Medications most often used in OB/GYN, preparation for patient education and counseling in women's health, patient monitoring parameters in the areas of obstetrics and gynecology.

McCOMBS

PHRM 5970. Health-System Pharmacy. 3 hours.

Prerequisite for PHRM 5970: Permission of department.

Pharmacy services ranging from inpatient dispensing in hospitals and long-term care facilities to the provision of outpatient services in clinics and home health care services. Emphasis is given to the inpatient distribution of medications in hospitals.

WARREN

#### **INTERDEPARTMENTAL COURSES**

#### **Required Courses**

PHRM 3100, 3110. Pharmacy Skills Lab
I. II. 2 hours each.

Prerequisite for PHRM 3100: Permission of department.

Corequisite for PHRM 3100: PHRM 3010,3400,3620.

Corequisite for PHRM 3110: PHRM 3200,3410,3940.

Development of knowledge base, skills and techniques necessary to render effective pharmaceutical care in a variety of settings. BOUDINOT, S., SCHRAMM, AND STAFF

PHRM 3800, 3850. Clinical Applications I, II. 1 hour each.

Prerequisite for PHRM 3800: Permission of department.

Corequisite for PHRM 3800: PHRM 3050, 3400.3470.

Corequisite for PHRM 3850: PHRM 3060, 3410.3480.

Clinical applications of anatomy/physiology, pathophysiology, and biochemistry. Case presentations and various off-site experiential assignments to develop students' pre-clerkship skills.

McCALL, CHISHOLM

PHRM 4120, 4130. Pharmacy Skills Lab III, IV. 2 hours each.

Prerequisite for PHRM 4120: PHRM 3100, 3110.

Corequisite for PHRM 4120: PHRM 4180/6180, 4200, 4850.

Corequisite for PHRM 4130: 4190/6190, 4210. 4860.

Analysis, comprehension, and application of pharmaceutical product knowledge. BOUDINOT, S., THOMAS, COBB, AND STAFF

PHRM 4180/6180. Drug Therapy of Infectious Disease. 3 hours.

Prerequisite: PHRM 3060 or permission of department.

Corequisite: Undergraduate level only: PHRM 4120.

Study of chemistry, spectrum of activity, place in therapy, stability, incompatibilities and toxicities of antibacterial, antivirals, and antibiotics.

BEACH, COOPER, AND LANGFORD

PHRM 4190/6190. Chemotherapy of Cancer. 2 hours.

Perquisite: PHRM 3060 or permission of department.

Corequisite: Undergraduate level only: PHRM 4130.

Etiology, prevention, and treatment of cancer in man. Emphasis on the mechanism, toxicity, and side effects of anticancer agents of various antineoplastic agents.

COOPER AND STAFF

PHRM 4800. Pharmacy Seminar. 1 hour. Prerequisite: Permission of department. Presentations and small group discussions with emphasis on professionalization and lifelong personal and professional learning. OZBURN

PHRM 4900, 4950. Clinical Applications III, IV. 1 hour each.

Corequisite for PHRM 4900: PHRM 4050/6050, 4410, 4850.
Corequisite for PHRM 4950: PHRM 4060/6060, 4130, 4420, 4860.

Clinical applications of medicinal chemistry, pharmacology, and therapeutics. Case presentations and various off-site experiential assignments to develop students' pre-clerkship skills.

FRANCISCO, THOMAS, AND STAFF

PHRM 5140, 5150. Pharmacy Skills Lab V, VI. 1 hour each.

Prerequisite for PHRM 5140: PHRM 4130. Corequisite for PHRM 5140: PHRM 5820, 5860.

Prerequisite for PHRM 5140: PHRM 5140. Creation and demonstration of individual dosage regimens designed by integrating patient presenting conditions and pharmacotherapeutic considerations. HAWKINS AND STAFF

PHRM 5260, 5270. Clinical Pharmacokinetics I, II. 3 hours each. Prerequisite for PHRM 5260: PHRM 4210. 4420 or permission of department. Prerequisite for PHRM 5270: PHRM 5260/7260 or permission of department. Basic pharmacokinetic concepts and the design and monitoring of therapeutic drug regimens. Emphasis on learning how to analyze and interpret patient specific drug concentration-time data. Nonlinear pharmacokinetics and effects on therapeutic drug regimens; emphasis on drug and disease-specific case studies. WHITE, BOUDINOT, D., TERRY, SPRUILL, WADE, AND STAFF

#### **Elective Courses**

PHRM 5050. Abused Drugs.

2 hours.

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

STEWART AND TACKETT

PHRM 5120. Professional Development for Today's Pharmacist.

1-3 hours.

Prerequisite: Permission of department. Professional issues in the following areas: communication skills, financial skills, leadership skills, team work, current events, and interviewing skills. STRICKLAND PHRM 5210. Special Topics in Pharmacy. 1-3 hours. May be repeated for a maximum of 12 credit hours. A study of specialized pharmaceutical systems, processes and techniques, including assignment of current literature and student presentations. STAFF

PHRM 5500. Community-Based Pharmacy Outreach.

3 hours.

Prerequisite: Permission of department. A framework for implementing community-based programs in practice settings for health risk reduction. Emphasis will be placed on disease states and different target groups.

WHITE, NICHOLS, AND BROOKS

PHRM 5980. Undergraduate Research Problem. 1-3 hours. May be repeated for a maximum of 12 credit hours. An introduction to research. The course is designed to acquaint the student with the techniques of research. A problem will be assigned, and the student will be expected to do library and lab work necessary to prepare an acceptable report. STAFF

#### FOR MORE INFORMATION

Information and application forms: Office of the Dean

College of Pharmacy The University of Georgia Athens, Georgia 30602 (706) 542-5278

Housing for single students:
Department of University Housing
The University of Georgia

The University of Georgia Athens, Georgia 30602 (706) 542-1421

Housing for married students: Family Housing Office

The University of Georgia Athens, Georgia 30602 (706) 542-1473 Payment of fees and deposits:

Treasurer's Office The University of Georgia Athens, Georgia 30602 (706) 542-1625

Scholarships and loans: Office of Student Financial Aid The University of Georgia Athens, Georgia 30602

(706) 542-6147

Admissions:
Office of Undergraduate Admissions
The University of Georgia

Athens, Georgia 30602 (706) 542-2112

Each year The University of Georgia publishes a campus security report. This report contains information on campus safety programs as well as advice on crime statistics about crimes on campus during the last three calendar years. This report is available upon request from the Admissions Secretary in the Office of the Dean of the College of Pharmacy, The University of Georgia, Athens, Georgia 30602-2351, (706) 542-5278.

Cost: \$2,490/Quantity: 5,000 copies



