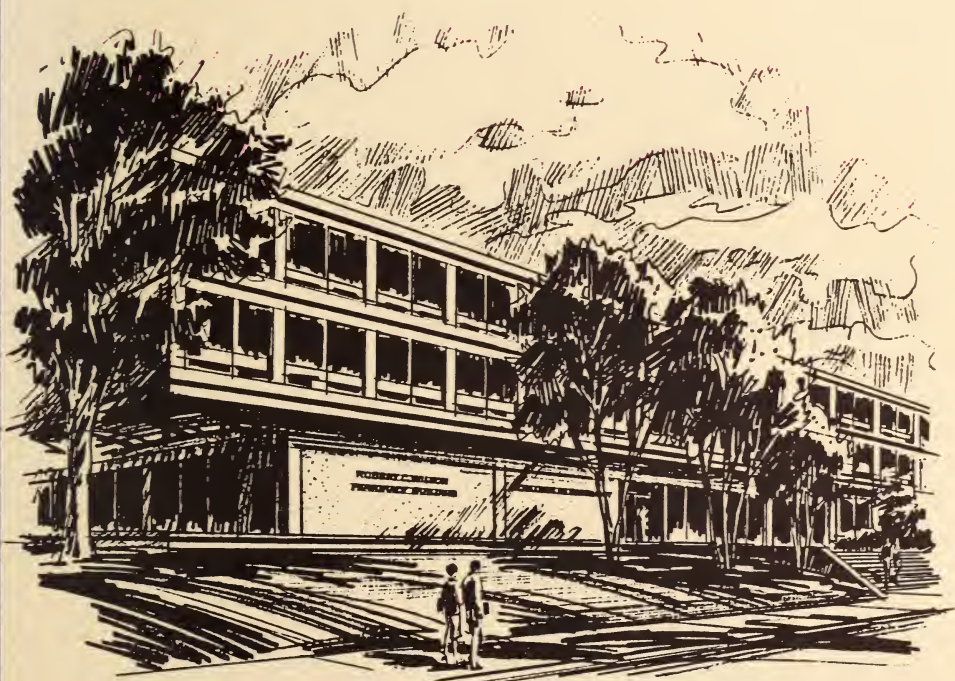

The University of Georgia College of Pharmacy

Bulletin 1995 - 1996



A Unit of the University System of Georgia



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ACADEMIC CALENDAR 1995-1996

FALL QUARTER 1995

Residence Halls Open	Sept. 12, T
Orientation	Sept. 13, 14, W, Th
Late Registration	Sept. 15, F
Classes Begin	Sept. 18, M
Drop/Add	Sept. 18-20, M-W
Midpoint of Quarter	Oct. 20, F
Thanksgiving Recess	Nov. 20-24, M-F
Classes Resume	Nov. 27, M
Classes End	Dec. 1, F
Final Exams	Dec. 4-7, M-Th

WINTER QUARTER 1996

Residence Halls Open	Jan. 2, T
Orientation	Jan. 3, W
Late Registration	Jan. 4, Th
Classes Begin	Jan. 5, F
Drop/Add	Jan. 5, 8, 9, F, M, T
Holiday (No Classes)	Jan. 15, M
Midpoint of Quarter	Feb. 9, F
Classes End	Mar. 15, F
Final Exams	Mar. 18-21, M-Th

SPRING QUARTER 1996

Residence Halls Open	Mar. 27, W
Orientation	Mar. 28, Th
Late Registration	Mar. 29, F
Classes Begin	Apr. 1, M
Drop/Add	Apr. 1-3, M-W
Midpoint of Quarter	May 3, F
Classes End	June 7, F
Final Exams	June 10-13, M-Th
Commencement	June 15, Sa

This calendar is correct as of the date of this publication, but may be subject to change during the next year. Please refer to the *Schedule of Classes* and/or other special announcements that may be forthcoming. Calendars for the Summer Quarters are available in the Office of the Dean.

TABLE OF CONTENTS

The University System of Georgia	3	Regulations	11
		Hours	11
The College of Pharmacy	4	Pharmacy Internship	11
Officers of Administration	4		
The Faculty	4	Finances and Aid	11
General Information	6	Professional Programs	12
Programs of Study	6	Bachelor of Science	12
Admission to Professional Programs	6	Doctor of Pharmacy	18
Admission to the Postbaccalaureat of Pharmacy Program	6	Interdepartmental Courses	20
Pre-Pharmacy Curriculum	7	For More Information	21
Area I - Humanities/Fine Arts	7		
Area II - Mathematics and Natural Sciences	8		
Area III - Social Sciences	8		
Area IV - Courses Related to Major	9		

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. Students enrolled at the University agree to comply with the University's rules and regulations and to accommodate to any changes necessary. 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.

THE UNIVERSITY SYSTEM OF GEORGIA

The University System of Georgia includes 34 state-sponsored, public institutions located throughout Georgia — 6 universities, 13 senior colleges 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 1932. 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.

INSTRUCTION includes programs of study leading to degrees ranging from the associate (2-year) to the doctoral level, and certificates.

Requirements for admission to instructional programs are set by institutions, pursuant to policies of the Board of Regents which sets minimum academic standards and leaves each institution the prerogative of establishing higher standards. Application for admission should be made directly to institutions.

A Core Curriculum, defining freshman and sophomore courses for students who seek degrees beyond the associate level, is in effect for all University System institutions. This 90-hour Curriculum includes 60 in general education — humanities, mathematics, natural and social sciences — and 30 in the student's chosen major area. It facilitates transfer of freshman and sophomore credits within the University System.

PUBLIC SERVICE/CONTINUING EDUCATION includes non-degree programs, special college-degree-credit courses, and institutional outreach programs.

Non-degree activities would include short courses, conferences, seminars, lectures and consultative services in many interest areas. These activities, usually of short duration, are designed

to meet special educational, informational and cultural needs of people served by institutions. All institutions conduct some non-degree public service/continuing education. College-degree-credit courses are typically offered through extension center programs and teacher education consortiums.

RESEARCH encompasses investigations conducted for the discovery and application of knowledge. These investigations include clearly defined projects in some cases and non-programmatic activities in other cases. Research is conducted on campuses and at other locations and projects related to a large variety of educational objectives and societal needs. Most research is conducted by the 4 universities though some senior colleges also have research efforts underway.

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 Board of Regents office.

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
Hawkins, David Warner, Pharm.D., Professor
and Assistant Dean
Perri, Matthew III, Ph.D., Associate Professor
and Coordinator of Research and
Graduate Studies
Tambrallo, Laura Jeanne, D.V.M., Director,
Animal Resources
Thomas, Patricia Cole, B.S., Clinical Pharmacy
Associate and Assistant to the Dean
Duke, Kenneth Martin, M.B.A., Clinical
Pharmacy Associate and Assistant
to the Dean

Lu, Donghao Robert, Ph.D., Assistant
Professor
Price, James Clarence, Ph.D., Professor
White, Catherine Ann, Ph.D., Assistant
Professor

Department of Pharmacology and Toxicology

Bruckner, James Victor, Ph.D., Professor
Bunce, Opal Rebecca, Ph.D., Associate
Professor
Dallas, Cham Edwards, Ph.D., Associate
Professor
Greenspan, Phillip, Ph.D., Assistant Professor
Hartle, Diane Kathleen, Ph.D., Associate
Professor
Iturrian, William Ben, Ph.D., Associate
Professor
Reigle, Thomas George, Ph.D., Associate
Professor
Tackett, Randall Lynn, Ph.D., Professor

Department of Pharmacy Care Administration

Kotzan, Jeffrey Anthony, Ph.D., Professor and
Head
Martin, Bradley Charles, Ph.D., Assistant
Professor
Perri, Matthew III, Ph.D., Associate Professor
Pritchard, Franklin Lamar Jr., Ph.D., Academic
Professional Associate
Poirier, Sylvie, Ph.D., Assistant Professor

THE FACULTY

Department of Medicinal Chemistry

Stewart, James Thomas, Ph.D., Professor and
Head
Beach, Joseph Warren, Ph.D., Assistant
Professor
Chu, Chung Kwang, Ph.D., Professor
Ruenitz, Peter Carmichael, Ph.D., Professor
Taylor, Ethan Will, Ph.D., Associate Professor

Department of Pharmaceutics

Boudinot, Frank Douglas, Ph.D., Associate
Professor and Head
Boudinot, Sarah Frances, B.S., Instructor
Capomacchia, Anthony Cessare, Ph.D.,
Associate Professor
Jun, Hung Won, Ph.D., Professor

Department of Pharmacy Practice

DiPiro, Joseph Thomas, Pharm.D., Professor
and Head
Chisholm, Marie Annette, Pharm.D., Clinical
Assistant Professor
Cooper, James Weaver, Jr., Ph.D., Professor
Cobb, Henry Herbert III, M.S., Clinical
Pharmacy Associate
Duke, Kenneth Martin, M.B.A., Clinical
Pharmacy Associate
Longe, Robert Leon, Pharm.D., Professor
May, Jere Russell, Pharm.D., Adjunct
Associate Professor
McCall, Charles Yates, Pharm.D., Associate
Professor
McCombs, Janet, Pharm.D., Clinical Assistant
Professor
Morton, Mark Ronald, Pharm.D., Academic
Professional
Reese, Ronald Lee, Pharm.D., Clinical
Assistant Professor
Schramm, Linda Christine, B.S., Clinical
Pharmacy Associate
Spruill, William Jerry, Pharm.D., Associate
Professor and Assistant Department
Head
Taylor, Andrew Thomas, Pharm.D., Associate
Professor
Terry, Alvin Vincent, Jr., Ph.D. Assistant
Professor
Thomas, Patricia Cole, B.S., Clinical Pharmacy
Associate
Ujhelyi, Michael Robert, Pharm.D., Assistant
Professor
Wade, William Elton, Pharm.D., Associate
Professor
Warren, Flynn Wilford, M.S., Clinical
Pharmacy Associate
Winecoff, Allison Penland, Pharm.D., Assistant
Professor

Postgraduate Continuing Education

Ozburn, William Michael, Ed.D., Director of
Postgraduate Continuing Education and
Pharmaceutical Services
Gammill, Charles Goodrich, Ed.D., Public
Service Representative

Student Support Services

Dehoney, Joanne, M.S., Educational Program
Specialist
Prine, Jeanne Suzanne, Ph.D., Educational
Program Specialist
Roberson, Sheila F., B.A., Public Relations
Coordinator
Smith, Jayne L., M.Ed., Learning Services
Coordinator
Strickland, Dana, B.S., Director of
Development

GENERAL INFORMATION

PROGRAMS OF STUDY

The Bachelor of Science in Pharmacy degree is awarded to students who successfully complete the five-year study of prescribed courses. The first two years (pre-pharmacy) may be completed at any accredited institution of higher education. The last three years (professional) must be in residence at the College of Pharmacy. Nine quarters of residence in the professional baccalaureate program are required by the American Council of Pharmaceutical Education.

Students who begin their professional study in the fall term will have the opportunity to "track" toward a Doctor of Pharmacy degree. During the second professional year, application will be made regarding this choice. The Pharm.D. tracking program is thirteen professional quarters in length, and the program is taught at The Medical College of Georgia in Augusta.

A postbaccalaureate Doctor of Pharmacy degree, which is six quarters in length, is available. All professional programs are accredited by the American Council on Pharmaceutical Education.

ADMISSION TO PROFESSIONAL PROGRAMS

To be admitted to a 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 90 quarter 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 PCAT scores and recommendations. The College of Pharmacy accepts students into its professional program for fall quarter only.

Application to the College of Pharmacy should be submitted by March 1. Transcripts showing all college work taken should accompany the application to the Dean of the College of Pharmacy when they have completed four quarters of academic work. Applicants who are accepted but do not attend for the accepted term may 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.

ADMISSION TO THE POSTBACCALAUREATE DOCTOR OF PHARMACY PROGRAM

Persons holding a baccalaureate degree in pharmacy from an A.C.P.E. accredited institution may apply to the Pharm.D. academic program. Inquiries should be sent to the Office of the Dean. The application deadline is January 31.

PRE-PHARMACY CURRICULUM

See University of Georgia Undergraduate Bulletin for specific credit hours and prerequisites.

Quarter Hours

AREA I - HUMANITIES/FINE ARTS

ENG 101, 102	10
SPC 108 or 109	5
Literature--may be chosen from:	5
CLC 120, 121, 150	
CML 221, 222, 225H, 226H	
ENG 231G, 232G, 233G, 105H, 235H, 236H, 237H	
Intermediate level foreign language (at the 100-200 level)	

ENG 101. English Composition. Expository themes on both general and literary topics developed by basic rhetorical methods.

ENG 102. English Composition.

Prerequisite: Credit for ENG 101 by the placement test or earned with a grade of C or better. Themes on fiction, poetry, and drama.

SPC 108. Fundamentals of Speech

Communication. A first course in the fundamental principles of effective oral communication. Special attention is given to the selection and organization of materials, the presentation of speeches, and the development of an acceptable speaking voice.

SPC 109. Interpersonal Communication.

Study of communication as it occurs in two-person and small group settings. Primary concern is given to understanding how an individual can use verbal and nonverbal communication to improve relationships and derive maximum social rewards. Emphasis is placed on student involvement in class exercises and discussions.

CLC 120. Classical Culture: Greece. A study of the characteristics of Greek literature, made principally through translations of selections from Greek authors.

CLC 121. Classical Culture: Rome. A study of the characteristics of Latin culture, made principally through translations of selections from Latin authors.

CLC 150. Mythology in Classical Literature.

An introduction to the myths and sagas of the Greeks and Romans, in particular through ancient literature.

CML 221, 222. Western World Literature.

A survey of Western World Literature from Homer to the 20th Century.

CML 225H, 226H. Western World Literature

(Honors). A survey of Western World Literature from Homer to the 20th Century for Honors.

ENG 231G. Masterpieces of English

Literature to 1700. Masterpieces of English literature from the beginnings to 1700.

ENG 232G. Masterpieces of English

Literature after 1700. Masterpieces of English literature from 1700 to the present.

ENG 233G. Masterpieces of American

Literature. Masterpieces of American literature since 1800.

ENG 105H. Composition and Literature

(Honors). Literary works as specimens of effective writing.

ENG 235H. Masterpieces of Literature in

English (Honors). Masterpieces of English literature from the beginnings to 1700.

ENG 236H. Masterpieces of Literature in

English (Honors). Masterpieces of English literature from 1700 to the present.

ENG 237H. Masterpieces of American Literature (Honors). Major works in American literature since 1800.

AREA II - MATHEMATICS AND NATURAL SCIENCES

MAT 116 (MAT 253 suggested as a substitute if student qualifies.) 5
CHM 121 and 121L, 122 and 122L, 123 and 123L 15

MAT 116. Precalculus Mathematics. The concept of function, intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions, and applications.

CHM 121, 122. General Chemistry. The first course is a systematic treatment of fundamental chemical principles. The second course is a continuation of the first.

CHM 121L, 122L. General Chemistry Laboratory.

CHM 123. Qualitative Analysis. The fundamental theories of qualitative analysis and analysis of common cations and anions by semi-micro methods.

CHM 123L. Qualitative Analysis Laboratory.

AREA III - SOCIAL SCIENCES

HIS 251 or 252 5
POL 101 5
ECN 106 or 107 (106 preferred) 5
Elective--may be chosen from: 5
 ANT 102
 HIS 111, 121, 122, 251#, 252#
 POL 202
 PSY 101, 258
 SOC 105, 111, 160

HIS 251. American History to 1865. Development of the American nation from the Age of Discovery to 1865.

HIS 252. American History Since 1865. Development of the American nation from 1865 to the present.

POL 101. American Government. An introductory course covering the essential facts of federal, state, and local governments in the United States.

ECN 106. Principles of Microeconomics. Introduction to the price and market system with applications of microeconomic theory to current economic problems.

ECN 107. Principles of Macroeconomics. Income, employment, and other macro-economic theory with applications to current economic problems.

ANT 102. Introduction to Anthropology. Variation in human culture and biology from the earliest beginnings to the present, including relationships between human biology, culture, and the environment, and an understanding of contemporary cultural differences. (This course will satisfy the Environmental Literacy Requirement for graduation.)

HIS 111. History of Western Civilization to 1500. Development of the institutions of the Western world from earliest times to 1500.

HIS 121. Early Modern Western Civilization. A cultural survey of Western civilization from the Renaissance to the end of the Napoleonic Era, emphasizing ideas of the period.

HIS 122. Modern Western Civilization. A cultural survey of Western civilization from the Congress of Vienna to the present, emphasizing ideas of the period.

HIS 251. Description above.

HIS 252. Description above

POL 202. Introduction to Political Science.

Introduction to the concepts, issues, and methods of the subfields of political science. Emphasis on basic analytical skills, including research methods, that will be important in subsequent coursework.

PSY 101. Elementary Psychology.

Introduction to the phenomena, laws, theories, and history of psychology. Topics include animal and human learning, motivation, perception, differential psychology, social behavior, and biopsychology. Emphasis is on fundamental principles rather than on application. Students are given the opportunity to participate in ongoing research.

PSY 258. The Psychology of Adjustment.

Introduction to psychological adjustment, including appropriate and inappropriate reactions to frustration and stress; solutions to conflict, fear and anxiety; building self-concept and improving interpersonal relations.

SOC 105. Introductory Sociology.

An introduction to the sociological analysis of society, its origins, structure, change and problems. Emphasis is on the nature of culture, social interaction, social groups and social institutions.

SOC 111. American Society. An analysis of the major institutions and processes in contemporary American society, including cultural beliefs, work and stratification, family patterns, political and economic issues, and education.

SOC 160. Contemporary Social Problems. A study of the major problems of our times and their social and cultural causes and consequences. The course will deal with society's perception of these social issues and attempts to resolve these problems.

AREA IV - COURSES RELATED TO MAJOR

CHM 240 and 240L, 241 and 241L	10
BIO 103-103L, 104-104L	10
PCS 127-127L, 128-128L	10
PEB 100-165 (Physical Education)	2

CHM 240, 241. Fundamental Organic Chemistry. A two-quarter sequence designed to teach students the basics of organic chemistry in preparation for entrance into veterinary medicine and pharmacy schools, or for majors in bioscience fields.

CHM 240L, 241L. Fundamental Organic Chemistry Laboratory.

BIO 103-103L Principles of Biology.** An introductory biology course which includes: cell structure and function: cell chemistry, cell division; genetics; gene expression and regulation; animal development; evolution; behavior; diversity of viruses and bacteria.

BIO 104-104L Principles of Biology.** A second course in an introductory biology sequence which includes: cell respiration, photosynthesis; plant and animal phylogeny; structure and function of major plant and animal systems; ecology.

PCS 127-127L. Introductory Physics - Mechanics. An introductory course that deals with the fundamental laws of mechanics.

PCS 128-128L. Introductory Physics - Thermodynamics, Electricity and Magnetism. An introductory course that deals with the fundamental laws of thermodynamics, electricity and magnetism.

#Either HIS 251 or 252 must be taken as a required course; the other as an elective.

**BIO 107-107L or 108-108L may be taken instead of 103-103L or 104-104L.

PEB. All students entering the University who matriculate for their first baccalaureate degree are required to pass two credit hours of basic physical education. This requirement may be satisfied by successful completion of any combination of basic physical education courses.

U.S. - Georgia History, Constitution, Regents

Exam. "U.S. History" taken at any accredited college will satisfy the University's requirement for U.S. and Georgia history. "American Government" taken at a Georgia college will satisfy both the federal and state constitution requirements. "American Government" taken outside of Georgia satisfies the Federal Constitution requirement only. All students will also be required to pass the Regents Exam if they have not already done so at another University System institution. The University will automatically satisfy these requirements if the student satisfies them at another system school. If a person has earned a baccalaureate degree, the Regents Exam is automatically satisfied.

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 catalog, 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.

REGULATIONS

HOURS

In order to receive the Bachelor of Science degree from the College of Pharmacy, a student must have earned not less than 231 quarter hours of required credit, exclusive of physical education, with a cumulative grade point average of at least 2.0. Similarly a minimum of 291 hours are required for the tracking Pharm.D. program.

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 480 hours of credit toward internship will be awarded for work performed while registered for academic credit in an authorized externship program. An intern license is required for participation in the externship 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 quarterly expenses.

Total Resident Fees	\$880.00
Total Non-Resident Fees	2,338.00
Residence Halls	\$515.00-\$720.00
Meals	\$490.00-\$550.00
Books	\$130.00
Lab Clothing and Equipment	\$25.00

The University reserves the right to change its tuition and fees at the beginning of any quarter and without previous notice. This right will be exercised cautiously.

PROFESSIONAL PROGRAMS BACHELOR OF SCIENCE

REQUIRED COURSES

Quarter Hours

MEDICINAL CHEMISTRY

First Professional Year

PHM 301 Introduction to Pharmacy	5
PHM 305 Biochemical Basis of Disease I	3
PHM 306 Biochemical Basis of Disease II	3
PHM 310 Pharmacy Skills Lab I	3
PHM 311 Pharmacy Skills Lab II	3
PHM 320 Quantitative Methods in Pharmacy	4
PHM 340 Anatomy and Physiology I	4
PHM 341 Anatomy and Physiology II	4
PHM 347 Pathophysiology I	4
PHM 348 Pathophysiology II	4
PHM 362 Administrative Sciences I	4
PHM 365 Administrative Sciences II	4
PHM 380 Clinical Applications I	I
PHM 385 Clinical Applications II	I
PHM 390 Pharmacy Intercommunications	I
PHM 394 Survey of Drug Information	I

Second Professional Year

Courses for second, third, and fourth years are currently being revised and are pending University approval.

COURSE DESCRIPTIONS

The curriculum includes professional courses, which are numbered 300-599.

Medicinal chemistry is unique among the specialized areas of chemistry and pharmacy in that it requires a significant background in the biological sciences as well as a thorough understanding of chemistry. Areas of specialization for graduate study include the synthesis of new compounds of medicinal interest, the relationships between physical and chemical properties and biological activity, studies on the mechanisms of drug action, constituents of natural medicinal and poisonous agents, and pharmaceutical analysis of drugs in dosage forms and biological samples.

Required Professional Courses

PHM 305, 306. Biochemical Basis of Disease I, II. 3 hours each.

Prerequisite for PHM 305: First Year Pharmacy Student. Not open to students with credit in PHR 347 or 447.

Prerequisite for PHM 306: PHM 305.

Corequisite for PHM 305: PHM 340, 347.

Corequisite for PHM 306: PHM 341, 348.

PHM 305 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. PHM 306 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.

BEACH AND STAFF

~~PHR 403, 404, 405. Medicinal Chemistry I, II, III. 5, 4, and 3 hours respectively.~~

~~Prerequisite for 403: PHR 324, 350, 347.~~

Delete

Prerequisite for 403: PHR 324, 350, 347.

Corequisite for 403: PHR 433.

Prerequisite for 404: PHR 403.

Prerequisite for 405: PHR 404, MIB 350-350L.

A study of drugs currently in use, emphasizing the chemical principles related to stability, bioavailability, structure-activity relationship, metabolism and therapeutic use.

CHU AND STAFF

Elective Courses

PHR 504. Abused Drugs. 3 hours.

Prerequisite: First Year Pharmacy Student.

A discussion of the history, abuse, uses, effects, and detection of abused drugs.

STEWART, TACKETT

PHR 511. Historical Perspectives of Drug Discovery. 3 hours.

Prerequisite: Second Year Pharmacy Student or P.O.D.*

A study of selected historical events and personalities associated with the discovery of major drugs and drug classes.

STAFF

PHR 549. Radio-Pharmaceuticals. 3 hours.

Prerequisite: Second Year Pharmacy Student.

Procedures and techniques involved in the handling and use of radioisotopes in pharmaceutical practice.

DUKE

PHARMACEUTICS

Pharmaceutics explores and defines the physical and chemical properties of pharmaceutical systems and the mechanisms by which medication from these systems may be made available for utilization by the body. Areas of specialization for graduate studies include pharmaceutics, pharmacokinetics, and industrial pharmacy.

Required Professional Courses

PHM 320. Quantitative Methods in Pharmacy. 4 hours.

Prerequisite: First Year Pharmacy Student.

Corequisite: PHM 311.

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.

BOUDINOT, S., AND STAFF

PHR 525/725. Clinical Pharmacokinetics. 4 hours.

Prerequisite for 525: PHR 347, 350, 407/607, 435/635.

Prerequisite for 725: PHR 407/607 and P.O.D.*

Clinical Pharmacokinetics deals with the concepts and techniques of the kinetics of absorption, distribution and elimination of drugs as applied to patient care.

BOUDINOT, D., FELDMAN, WHITE

Elective Courses

PHR 722. Industrial Pharmacy I. 3-5 hours.

One lecture and six to nine lab hours weekly.

Prerequisite: PHR 407/607; for graduate students: P.O.D.*

Lectures and lab are concerned with the formulation and production of powders, capsules, compressed tablets and coated tablets. Production equipment and quality control procedures and problems are also studied.

PRICE

PHR 523/723. Industrial Pharmacy II. 3-5 hours.

Variable lecture and lab hours weekly.

Prerequisite: PHR 407/607; for graduate students: P.O.D.*

To acquaint students with specialized pharmaceutical systems, processes and control procedures involved with liquid, semisolid and aerosol dosage forms.
PRICE

PHARMACOLOGY AND TOXICOLOGY

Pharmacology is the study of the action of drugs and chemicals on the living organism, the effects induced, and their therapeutic applications, whereas toxicology emphasizes the deleterious effects of chemicals on body organs and systems. As scientific disciplines, these related areas are based in the physical and biological sciences with particular emphasis on physiology and chemistry.

Required Professional Courses

PHM 340, 341 Anatomy and Physiology I, II.
4 hours.

Prerequisite for PHM 340: First Year Pharmacy Student or P.O.D.* Not open to students with credit in PHR 349 or 649.

Prerequisite for PHM 341: PHM 340. Not open to students with credit in PHR 350 or 650.

Corequisite for PHM 340: PHM 310, 347, 305.

Corequisite for PHM 341: PHM 311, 348, 306.

PHM 340 focuses on anatomy and physiology of the human body with emphasis on the central nervous system, autonomic nervous system, cardiovascular and renal systems. PHM 341 focuses on human anatomy and physiology with emphasis on the immune, endocrine, gastrointestinal and respiratory systems.

BUNCE, DALLAS, GREENSPAN, REIGLE

PHR 433/633, 434/634, 435/635.

Pharmacology I, II, III. 4, 3, and 4 hours respectively.

Prerequisite for 433/633: PHR 350.

Prerequisite for 434/634: PHR 433/633.

Prerequisite for 435/635: PHR 434/634.

Corequisite for 433/633: PHR 403.

Corequisite for 435/635: PHR 445/645.

For graduate students: P.O.D.*

A study of the pharmacologic action, therapeutic application, and toxicology of drugs in current use. The drug categories included in PHR 433/633 are antihistamines, diuretics, endocrine hormones and related drugs. Categories included in PHR 434/634 are autonomic, anticoagulant, and cardiovascular drugs. PHR 435/635 is devoted to central nervous system active drugs.

BRUCKNER, DALLAS, GREENSPAN, ITURRIAN, REIGLE, TACKETT

PHR 445/645. Pharmacology Laboratory
1 hour.

One three-hour laboratory each week.

Corequisite: PHR 435/635.

Experiments designed to demonstrate the action of CNS, autonomic and cardiovascular drugs.

TACKETT

Elective Courses

PHR 465/665. Coronary Heart Disease.
3-5 hours.

Prerequisite: PHR 350 or PHR 650 or P.O.D.*

The pathophysiology of coronary heart disease, lipid triad and other risks for coronary heart disease. The vascular biology of the coronary artery and the effects of pharmacological, non-pharmacological and surgical treatments for coronary artery disease.

HARTLE

PHR 491/691 (VPH). Introductory Toxicology. 5 hours.

Prerequisite: BCH 402/602 or BCH 802 or equivalent; and PHR 350 or VPH 516 or equivalent; and P.O.D.*

This course is an overview of basic principles in the field of toxicology. It includes principles of hazard and safety evaluation, dose-response relationships, pharmacokinetics and metabolism of chemicals, basic mechanisms of cellular injury, factors influencing toxicity, specialty areas and governmental regulatory policies.
BRUCKNER, DALLAS, HATCH

PHARMACY CARE ADMINISTRATION

Pharmacy care administration is concerned with both the administrative aspects of pharmacy practice and the pharmacist's role in serving the patient's health needs. To accomplish these purposes, undergraduate study in this area includes: community and institutional pharmacy management, pharmacy law, health care systems, and patient behavioral topics.

Required Professional Courses

PHM 362. Administrative Sciences I 4 hours.
Prerequisite: First Year Pharmacy Student
Corequisite: PHM 310.

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, MARTIN

PHM 365. Administrative Sciences II 4 hours.
Prerequisite: First Year Pharmacy Student.
Discussion and analysis of management principles in relation to community and hospital pharmacy management, including planning, organizing, motivation, controlling, and marketing.
PERRI

PHM 390. Pharmacy Intercommunications. 1 hour.

Prerequisite: First Year Pharmacy Student.
Basic principles and processes associated with effective verbal, nonverbal, and written communication. Utilization of innovative technologies to enhance an interactive approach to patient counseling.
PRITCHARD

PHM 396. Administrative Pharmacy II
3 hours.

Prerequisite: PHM 393.

The application of managerial principles to the professional practice of pharmacy.
PERRI

PHM 592. Administrative Pharmacy III
3 hours.

Prerequisite: PHM 393.

Advanced study of managerial and financial principles relating to pharmacy practice in corporate and hospital situations. Microcomputer-assisted financial analyses are provided through simulation in pharmacy management.
KOTZAN

PHM 593. Pharmaceutical and Health Care Services. 3 hours.

Prerequisite: PHM 390.

A study of the principles and methods involved in the rendering of pharmaceutical and health care services. Included are the social, economic, legal and professional aspects and the study of the activities of providers and consumers of such services.
POIRIER

Elective Courses

PHM 590. Pharmacy Ethics. 3 hours.

Prerequisite: First Year Pharmacy Student.

A study of problems faced by the community pharmacist as he/she strives to strike a balance between the demands of economic competition and of professional ethics.
STAFF

PHARMACY PRACTICE

Pharmacy practice offerings are designed as capstone courses to integrate and apply all prior course material to the assessment of patient problems, prescription practice and communication of knowledge to both prescriber and patient at professional baccalaureate and doctoral levels. The Doctor of Pharmacy curriculum is intended to further prepare the student for specialized practice and applied research in ambulatory, long term or acute care settings in addition to preparing the student for career opportunities in industry, government, and academia.

Required Professional Courses

PHM 301. Introduction to Pharmacy.

4 hours.

Prerequisite: First Year Pharmacy Student or P.O.D.*

Corequisite: PHM 310.

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

WARREN

PHM 394. Survey of Drug Information.

1 hour.

Prerequisite: First Year Pharmacy Student.

Corequisite: PHM 311.

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

PHR 437. Dispensing I. 5 hours.

Four hours lecture and three hours lab weekly.

Prerequisite: PHR 390, 404, 407, 434/634, 447.

An integration of pharmaceutical sciences and pharmacy practice. The procedures and precautions necessary in providing pharmaceutical and drug information services in the community pharmacy and in institutional settings. Special emphasis is placed on drug literature, interactions, product selection and therapy.

COBB, McCOMBS, SCHRAMM, THOMAS, WARREN

PHR 500ABCDE. Pharmacy Externship.

5 hours each, 15 hours (three courses) required.

At least 40 hours per week for 12 weeks.

Prerequisite: PHR 538, 540, 585.

An integrated course applying all prior material into pharmacy practice. Experience will be obtained in community, hospital and clinical rotations at selected extramural practice sites. The student should check with the Department for the regulations concerning this course series.

MORTON AND STAFF

PHR 538. Dispensing II. 5 hours.

Four hours lecture and three hours lab weekly.

Prerequisite: PHR 435/635, 437.

A relationship of factual and conceptual knowledge to prescription practice material emphasizing the most common drug-related problems. Development of a concept of the significance of these problems and formulation of problem anticipation approach for the pharmacy in community and institutional practice. A review of significant regulatory changes is included.

COBB, COOPER, SCHRAMM, THOMAS, WARREN

PHR 540. Patient Assessment. 2 hours.

Prerequisite: PHR 435/635, 437.

An introduction to physical and laboratory assessment of the patient and patient survival management.

McCALL, MORTON

PHR 585. Disease States and Therapeutics. 5 hours.

Prerequisite: PHR 435/635 and 405.

A discussion of disease states with emphasis on procedures involved in restoring the patient to normal health.

STAFF

Elective Courses

PHR 505. Nonprescription Drugs. 3 hours.

Prerequisite: Second Year Pharmacy Student.

A discussion of the nonprescription drug products sold in pharmacies and intended primarily as self-medication drugs.

McCOMBS

PHR 508. Parenteral Therapy. 3-5 hours.

Prerequisite: PHR 350, 434/634, 447, or P.O.D.*

Procedures for establishing and administering an IV admixture service, technical aspects of compounding and administering parenteral preparations and the principles of patient care, e.g., principles involved in diagnosis of imbalance, prescribing effective parenteral therapy and monitoring results.

COBB

PHR 510. Women's Health Care. 3 hours.

Prerequisite: PHR 349, 350 and Second Year Pharmacy Student.

This course emphasizes patient education of the medication and over-the-counter products used in obstetrics and gynecology.

McCOMBS

PHR 524. Institutional Pharmacy. 3-5 hours.

Prerequisite: Third Year Pharmacy Student; graduate students by P.O.D.*

A study of the history, organization, structure, and operational policies and procedures of various types of health care institutions.

Consideration is given to the pharmaceutical services rendered in hospitals, extended care facilities, and nursing homes.

WARREN

PHR 560. Clinical Seminar. 3-5 hours. May be repeated for a maximum of 20 credit hours.

Prerequisite: Third Year Pharmacy Student; graduate students by P.O.D.*

Lectures involve clinical case presentations including aspects of etiology, pathology, prognosis and treatment of disease.

Laboratories involve teaching rounds and case work-up at local hospitals.

STAFF

PHR 570. Clinical Clerkship. 3-5 hours.

May be repeated for a maximum of 20 credit hours.

Prerequisite: Third Year Pharmacy Student; for graduate students: P.O.D.*

The clerkship involves instruction in pharmacy practice in a clinical setting under the direct supervision of a professional practitioner.

Clerkships are available in a number of community and institutional settings.

STAFF

PHR 594. Prescription Accessory Products.

3 hours.

Prerequisite: Second Year Pharmacy Student.

A study of accessory products related to prescriptions, sickroom needs, rehabilitation and convalescent equipment, surgical supports and other health-related appliances.

THOMAS

PHR 595. Household and Animal Health

Products. 3 hours.

Prerequisite: Second Year Pharmacy Student.

The study of fumigants, rodenticides, insecticides, fungicides, weedicides, parasitocides and toxins, serums, vaccines, and related products commonly sold in the drugstore. Ethics, economic and legal aspects will be stressed.

KEMP

*Permission of department

DOCTOR OF PHARMACY

Required Professional Courses

PHR 550-550L. Physical Assessment.

3 hours.

Prerequisite: PHR 540.

Advanced techniques of physical assessment of drug and disease effects.

LONGE, WINECOFF

PHR 552. Advanced Drug Information.

4 hours.

Prerequisite: Admission to Pharm.D. program.

Practical methods of retrieval, analysis and elucidation of drug information.

MAY

PHR 554AB. Applied Pharmacokinetics and Drug Analysis. 3 hours each.

Prerequisite for 554A: Admission to Pharm.D. program.

Prerequisite for 554B: PHR 554A.

Application of pharmacokinetic principles to design a dosing regimen, new drug evaluation, and analytical technique selection and evaluation.

WADE, COBB, SPRUILL AND STAFF

PHR 555. Clinical Conference. 2 hours.

May be repeated for a maximum of 12 credit hours.

Prerequisite: Admission to Pharm.D. program.

Presentation of patient case and pertinent literature in grand rounds fashion.

WINECOFF

PHR 572ABCDEFJK. Advanced Clerkship II. 5 hours each.

Prerequisite: PHR 552, 554B, 589.

Clinical practice in outpatient and inpatient settings; externship in community and hospital pharmacy settings. Course will satisfy PHR

500 requirement for Pharm.D. tracking students.

STAFF

PHR 573ABC. Advanced Clerkship III. 5 hours each.

Prerequisite: PHR 552, 554B, 589.

Clinical practice in inpatient and outpatient settings.

STAFF

PHR 587, 588, 589. Advanced Therapeutics and Pathophysiology. I, II, III. 6 hours each.

Not open to students with credit in PHR 561.

Prerequisite for 587: PHR 538, 585.

Prerequisite for 588: PHR 587.

Prerequisite for 589: PHR 588.

Advanced pathophysiologic and pharmacotherapeutic principles and concepts applied to human disease states and conditions.

STAFF

Pharm.D. Elective Courses

PHR 512. Survey of Clinical Drug Therapy in the Elderly. 3 hours.

Prerequisite: Senior pharmacy student, graduate student, gerontology certificate student, P.O.D.*

A survey course on the use of drug therapies in a nursing home. Using clinical cases and direct patient contact, the student will develop a broad understanding of medical problems and their treatment.

LONGE

PHR 528. Clinical Epidemiology. 3 hours.

Prerequisite: Admission to Pharm.D. program.

Scientific basis for making and evaluating clinical decisions regarding normality/abnormality, diagnosis, risk factors,

prognosis, treatment, prevention, and causation.

HAWKINS

PHR 551. Seminar in Medical Care Problems.

1 hour.

Prerequisite: Admission to Pharm.D. program.

An orientation to medical care problems for the Doctor of Pharmacy student.

LONGE

PHR 574. Pharmacy Problem Solving I.

5 hours.

Prerequisite: Admission to Pharm.D. program.

A comprehensive presentation of basic research methods, study design, pilot and feasibility studies and techniques of evaluation and justification applied to patient situations.

STAFF

PHR 580. Clinical Toxicology. 3 hours.

Prerequisite: Admission to Pharm.D. program.

General toxicologic management principles, as well as specific treatment approaches to selected poisons. Mechanisms of toxicity, expected clinical course, and appropriate therapy will be emphasized.

STAFF

*Permission of department

INTERDEPARTMENTAL COURSES

Required Courses

PHM 310. Pharmacy Skills Lab I. 3 hours.

Prerequisite: First Year Pharmacy Student.

Corequisite: PHM 301, 340, 362.

Development of knowledge base, skills and techniques necessary to render effective pharmaceutical care in a variety of settings.

PHM 311. Pharmacy Skills Lab II. 3 hours.

Corequisite: PHM 320, 341, 394.

Development of knowledge base, skills and techniques necessary to render effective pharmaceutical care in a variety of settings.

PHM 347, 348. Pathophysiology I, II.

4 hours each.

Prerequisite for PHM 347: First Year Pharmacy Student or P.O.D.*

Prerequisite for PHM 348: PHM 347.

Corequisite for PHM 347: PHM 305, 340.

Corequisite for PHM 348: PHM 341, 306.

347: Fundamental mechanisms of human disease process, including manifestation, diagnosis and treatment. Emphasis on cardiovascular, renal, oncological, and neurological diseases. 348: A fundamental knowledge of the human disease process including manifestations, diagnosis and treatment of endocrine, metabolic immunological and respiratory diseases. BUNCE, WINECOFF, AND STAFF

PHM 380. Clinical Applications I. 1 hour.

Prerequisite: First Year Pharmacy Student.

Corequisite: PHM 340, 347, 305.

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

PHM 385. Clinical Applications II. 1 hour.

Corequisite: PHM 341, 348, 306.

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

Elective Courses

PHR 498H. Directed Study and/or Projects

(Honors). 5 hours.

Prerequisite: Honors Student in Pharmacy.

This course affords Honors students the opportunity to engage in individual study, reading or projects under the direction of a project director.

STAFF

PHR 499H. Honors Thesis. 5 hours.

Prerequisite: Honors Student in Pharmacy.

This course provides the opportunity for an Honors student to undertake individual research in the field of his/her major or in a closely related field.

STAFF

PHR 521/721. Special Topics in Pharmacy.

3-5 hours. May be repeated for a maximum of 20 credit hours.

A study of specialized pharmaceutical systems, processes and techniques, including assignment of current literature and student presentations.

STAFF

PHR 598. Undergraduate Research Problem.

3-5 hours. May be repeated for a maximum of 20 credit hours.

Prerequisite: Second Year Pharmacy Student.

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
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 prevention and the procedures to follow in reporting crimes. The report also contains 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: \$1,657/Quantity: 3,000 copies

