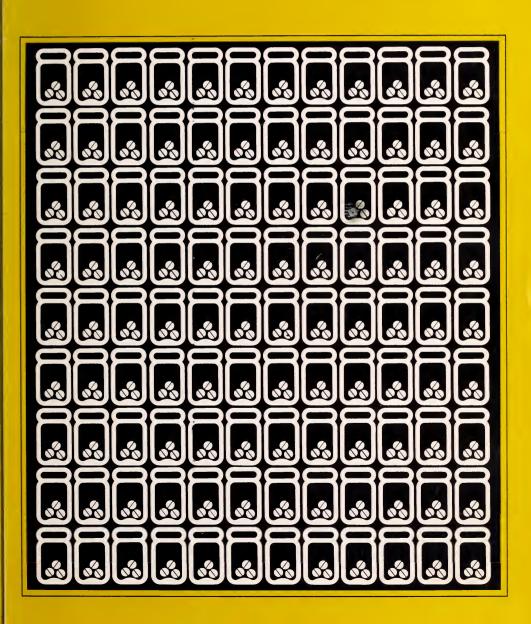
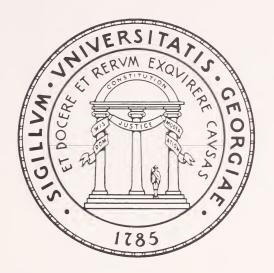
## The University of Georgia Bulletin 1977-78

School of Pharmacy

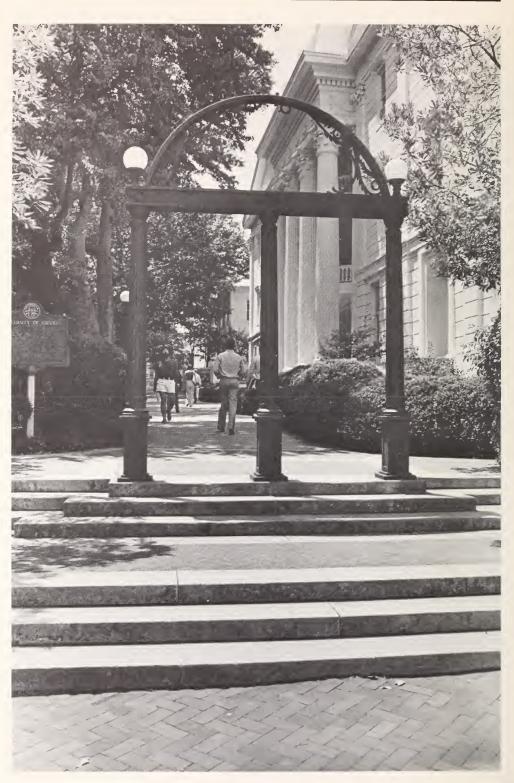


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## **CALENDAR** 1977 - 1978

#### Fall Quarter 1977

September 20 Residence halls open

September 21 Late Registration

September 22 Classes begin

November 23-27 Thanksgiving recess

December 1 Classes end

December 2 Reading day

December 5-8 Examinations

December 9 Vacation begins

#### Winter Quarter 1978

January 2 Residence halls open January 3

Late Registration

January 4 Classes begin

March 10 Classes end

March 11 Reading day

March 13-16
Examinations

March 17 Spring recess begins

#### Spring Quarter 1978

March 26 Residence halls open

March 27 Late Registration

March 28 Classes begin

June 1 Classes end

June 2 Reading day

June 5-8 Examinations

June 12 Graduation

#### Summer Quarter 1978

June 13 Residence halls open

June 14 Late Registration

June 15 Classes begin

June 3-4 Holiday

July 21 Short term classes end

July 22 Reading day

July 24-25 Short term examinations

August 11
Through term classes end

August 12
Reading day

August 14-16

Through term examinations

# UNIVERSITY SYSTEM OF GEORGIA

#### **BOARD OF REGENTS**

Jesse Hill, Jr., Atlanta State-at-Large (1973-1978)

Rufus Coody, Vienna State-at-Large (1976-1983)

Milton Jones, Columbus State-at-Large (1974-1981)

Lamar R. Plunkett, Bowdon State-at-Large (1974-1981)

O. Torbitt Ivey, Jr, Augusta State-at-Large (1977-1984)

Erwin A. Friedman, Savannah First District (1976-1983)

Charles T. Oxford, *Albany* Second District (1975-1982)

John H. Robinson, III, Americus Third District (1972-1979)

Scott Candler, Jr., Decatur Fourth District (1977-1984)

Elridge W. McMillan, *Atlanta* Fifth District (1975-1982)

David H. Tisinger, Carrollton Sixth District (1971-1978)

James D. Maddox, Rome Seventh District (1973-1980)

Charles A. Harris, Ocilla Eighth District (1971-1978)

P. Robert Smith, Winder Ninth District (1973-1980)

Carey Williams, Greensboro Tenth District (1972-1979)

#### OFFICERS AND STAFF

Charles T. Oxford, Chairman

Milton Jones, Vice Chairman

George L. Simpson, Jr., Chancellor

John W. Hooper, Vice Chancellor

Henry G. Neal, Executive Secretary

Shealy E. McCoy, Vice Chancellor – Fiscal Affairs and Treasurer

Frank C. Dunham, Vice Chancellor – Construction and Physical Plant

Mario J. Goglia, Vice Chancellor - Research

Howard Jordan, Jr., Vice Chancellor - Services

Harry B. O'Rear, Vice Chancellor - Health Affairs

W. Coye Williams, Jr., Vice Chancellor – Academic Development

Haskin R. Pounds, Assistant Vice Chancellor

James L. Carmon, Assistant Vice Chancellor – Computing Systems

Mary Ann Hickman, Assistant Vice Chancellor – Personnel

Robert M. Joiner, Assistant Vice Chancellor – Communications

# THE UNIVERSITY OF GEORGIA

## OFFICERS OF GENERAL ADMINISTRATION

#### President

Frederick Corbet Davison, President
J. Ralph Beaird, Counselor to the President
Albert Bruce Jones, Assistant to the President
James Benson Kenney, Assistant to the
President
James L. Carmon, Assistant to the President

#### Vice President for Academic Affairs

Virginia Y. Trotter, Vice President
Mary Louise McBee, Assistant Vice President
James H. Buck, Acting Assistant Vice
President
Lercy Engine In Acting Assistant Vice

Leroy Ervin, Jr., Acting Assistant Vice President

Fred Thurman Colhard, Assistant to the Vice President

Ernest W. Smith, Assistant to the Vice President

Sidney Edward Brown, Assistant to the Vice President

#### Vice President for Research

Robert Cletus Anderson, Vice President
Charles Herbert Douglas, Assistant Vice
President and Director of General Research
William Oates Burke, Assistant to the Vice
President and Director of University Research Park

#### Vice President for Services

S. Eugene Younts, Vice President
John D. Burke, Assistant Vice President
Robert Louis Rowan, Administrative Assistant

## Vice President for Development and University Relations

H. Perk Robins, Vice President
J. Donald Elam, Associate Vice President
Louis T. Griffith, Assistant Vice President

#### Vice President for Business and Finance

Allan Wedford Barber, Vice President
Jenkins Comer Whitehead, Assistant to the
Vice President

#### Student Affairs

Dwight O. Douglas, Dean

#### Libraries

Warren Norman Boes, Director

#### Registrar

Bruce T. Shutt, Registrar

#### Admissions

Morris Overton Phelps, Director of Admissions Claire Swann, Associate Director

#### **COLLEGES AND SCHOOLS**

College of Arts and Sciences (1801)
William Jackson Payne, Acting Dean

School of Law (1859) J. Ralph Beaird, Dean

School of Pharmacy (1903) Howard C. Ansel, *Dean* 

College of Agriculture (1906) Henry Wilbur Garren, Dean

School of Forest Resources (1906)
Allyn Marsh Herrick, Dean

College of Education (1908)
Joseph Anderson Williams, Dean

Graduate School (1910)
Hardy Malcolm Edwards, Dean

College of Business Administration (1912)
William Crawford Flewellen, Jr., Dean

School of Journalism and Mass Communication (1915) Scott M. Cutlip, *Dean* 

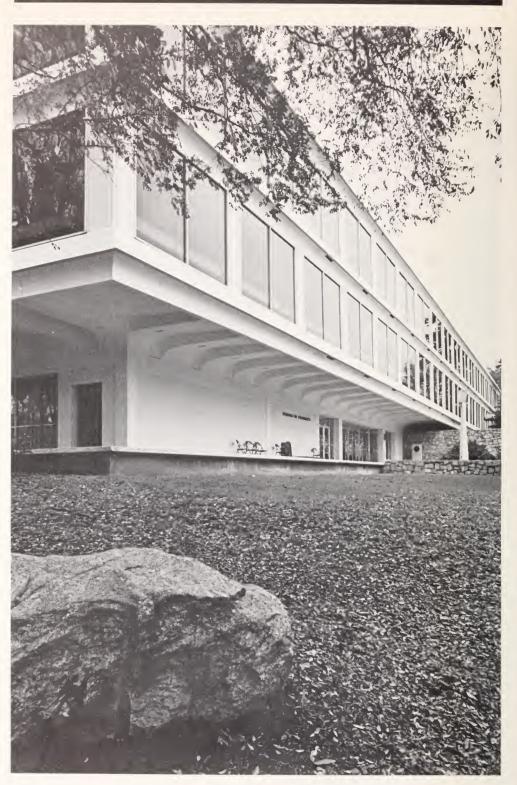
School of Home Economics (1933) Emily Quinn Pou, *Dean* 

College of Veterinary Medicine (1946)
David P. Anderson, Dean

School of Social Work (1964) Charles Ashley Stewart, *Dean* 

School of Environmental Design (1969)
Robert P. Nicholls, Dean





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## THE SCHOOL OF PHARMACY

#### OFFICERS OF ADMINISTRATION

- Ansel, Howard Carl, Professor of Pharmacy and Dean of the School of Pharmacy B.S. Pharmacy, Toledo: M.S., Ph.D., Florida
- Entrekin, Durward Neal, Professor of Pharmacy and Associate Dean of the School of Pharmacy

B.S., Pharmacy, Georgia; M.S., Ph.D., Florida

- Wickliffe, Billie Winell, Assistant to the Dean and Assistant Professor of Pharmacy B.S., B.S. Pharmacy, M.S., Ph.D., Georgia
- Hammond, Alfred Gene, Assistant to the Dean for Fiscal Affairs B.B.A., Georgia
- Waters, Kenneth Lee, Professor of Pharmacy and Former Dean of the School of Pharmacy A.B., Lynchburg; M.S., Georgia: Ph.D., Maryland
- Wilson, Robert Cumming, Dean Emeritus of the School of Pharmacy Ph.G. University of the South

#### THE FACULTY

#### Department of Pharmacy

- Baker, Raymond Stanley, Instructor in Pharmacy -Clinical Pharmacist, Part-time, Co-staffed with St. Marv's Hospital B.S. Pharmacy, Mercer
- Brackett, Colquitt Prater, Instructor in Pharmacy -Clinical Pharmacist B.S. Pharmacy, Georgia
- Cadwallader, Donald Elton, Professor of Pharmacy and Head. Department of Pharmacy B.S. Pharmacy, Buffalo; M.S., Georgia; Ph.D., Florida
- Capomacchia, Anthony C., Assistant Professor of Pharmacv B.S. Pharmacy, Ph.D., Florida
- Chaffin, James T., Jr., Pharmacist, University Health Services and Clinical Instructor, School of Pharmacy B.S. Pharmacy, Georgia
- Cooper, James W., Jr., Assistant Professor of Pharmacy B.S. Pharmacy, Ph.D., Georgia

- Dickerson, Joe Bill, Instructor in Pharmacy -Clinical Pharmacist B.S., Agriculture, B.S. Pharmacy, Georgia
- Fechtel, Edward John, Jr., Lecturer in Pharmacy, Part-time, Co-staffed with St. Mary's Hospital B.B.A., Notre Dame; M.B.A., Emory
- Jun, Hung Won, Associate Professor of Pharmacy B.S. Pharmacy, Taegu, Korea; Ph.D., Alberta
- Longe, Robert L., Assistant Professor of Pharmacv
  - B.S. Pharmacy, Georgia; Pharm. D., Tennessee
- McKeller, Billie Ray, Instructor in Pharmacy Clinical Pharmacist, Part-time, Co-staffed with Athens General Hospital B.S. Pharmacy, Auburn

Meunier, James Frank, Instructor in Pharmacy -Clinical Pharmacist, Part-time, Co-staffed with Athens General Hospital B.S. Pharmacy, Georgia

Needham, Thomas Edward, Jr., Associate Professor of Pharmacy

B.S. Pharmacy, M.S., Ph.D., Rhode Island

Price, James Clarence, Associate Professor of Pharmacv B.S. Pharmacy, Arkansas; M.S., Utah; Ph.D., Rhode Island

Singleton, James W., Lecturer in Pharmacy -Part-time, Co-staffed with Athens General Hospital B.B.A., Emory

Stegeman, John Foster, Special Lecturer in **Therapeutics** B.S., Georgia; M.D., Emory

Tebo, Lestina Smith, Instructor in Pharmacy and Advisor to Pre-Pharmacy Students B.S. Pharmacy, M.S., Georgia

Thomas, Patricia Cole, Instructor in Pharmacy -Clinical Pharmacist B.S. Pharmacy, Georgia

Vallner, Joseph J., Assistant Professor of Phar-B.S. Pharmacy, M.S., Ph.D., Wisconsin

Warren, Flynn Wilford, Instructor in Pharmacy -On Leave, Clinical Pharmacist B.S. Pharmacy, South Carolina; M.S., Georgia

Whitworth, Clyde Weydell, Professor of Pharmacy B.S. Pharmacy, M.S., Georgia; Ph.D., Florida

Wickliffe, Billie Winell, Assistant Professor of Pharmacy

B.S., B.S. Pharmacy, M.S., Ph.D., Georgia

#### Department of Medicinal Chemistry

LaRocca, Joseph Paul, Professor of Medicinal Chemistry and Head, Department of Medicinal Chemistry B.S. Pharmacy, Colorado; M.S., North Carolina; Ph.D., Maryland



Blanton, Charles DeWitt, Jr., Professor of Medicinal Chemistry

B.S., Western Carolina; Ph.D., Mississippi

Honigberg, Irwin Leon, Associate Professor of Medicinal Chemistry B.S. Pharmacy, Connecticut; Ph.D., North Carolina

Millikan, Francis Ford, Professor Emeritus of Medicinal Chemistry B.S. Pharmacy, M.S. Pharm., Colorado; M.S. Chemistry, Brooklyn Polytechnic Institute

Orchard, Robert W., Temporary Instructor in Medicinal Chemistry B.A., Westminster College

Ruenitz, Peter C., Assistant Professor of Medicinal Chemistry

B.S. Pharmacy, Minnesota; Ph.D., Kansas

Stewart, James Thomas, Associate Professor of Medicinal Chemistry B.S. Pharmacy, M.S., Auburn; Ph.D., Michigan

Stocklinski, Andrew W., Assistant Professor of Medicinal Chemistry B.S. Pharmacy, Rhode Island; M.S., Ph.D., lowa

Thompson, Bobby Blackburn, Associate Professor of Medicinal Chemistry B.S., Berry; M.S., Ph.D., Mississippi

## Department of Pharmacy Care Administration

- Jowdy, Albert Willoughby, Professor of Pharmacy Care Administration and Head, Department of Pharmacy Care Administration and Director of Pharmaceutical Services B.S. Pharmacy, M.S., Ph.D., North Carolina
- Braucher, Charles Landis, *Professor of Pharmacy Care Administration*B.S. Pharmacy, Philadelphia College of Pharmacy; M.A., Nebraska; Ph.D., Purdue
- Copp, Wayne M., Instructor in Pharmacy Clinical Pharmacist

B.S. Pharmacy, Pharm. D., Tennessee

- Dobbs, Willis Frank, Associate Professor of Pharmacy Care Administration B.S. Pharmacy, M.B.A., Georgia
- Frances, William Rankin, Assistant Professor of Pharmacy Care Administration B.S. Pharmacy, Loyola; M.S., Ph.D., Mississippi
- Gammill, Charles Goodrich, Public Service Associate, Co-staffed with the Georgia Center for Continuing Education
  B.S. Pharmacy, Sanford
- Kotzan, Jeffrey Anthony, Associate Professor of Pharmacy Care Administration B.S. Pharmacy, M.S., Ph.D., Purdue

#### **Pharmaceutical Services**

Moore, Robert Conley, Assistant Professor of Pharmacy Care Administration, Co-staffed with the Institute of Community and Area Development B.S. Pharmacy, Georgia; Pharm.D., Tennessee

#### **Department of Pharmacology**

- Wade, Adelbert Elton, Professor of Pharmacology and Head, Department of Pharmacology B.S. Pharmacy, M.S., Ph.D., Florida
- Brown, Walter John, Professor of Therapeutic Medicine, Part-time, Co-staffed with the University Health Service M.D., Medical College of Georgia
- Bunce, Rebecca, Assistant Professor of Pharmacology .B.S.A., M.S., Ph.D., Georgia

- Holl, James E., Assistant Professor of Pharmacology
  B.S. Pharmacy, M.S., Georgia; Ph.D., Medical
  - University of South Carolina
- Iturrian, William Ben, Associate Professor of Pharmacology
  - B.S. Pharmacy, Wyoming: Ph.D., Oregon State
- Johnson, Henry Douglas, Professor of Pharmacology
- B.S. Pharmacy, M.S., Ph.D., Florida
- Masters, Orlan Vincent Wade, Assistant Professor of Therapeutic Medicine, Part-time, Costaffed with the University Health Service B.A., M.D., Stanford
- Mokler, Corwin Morris, Associate Professor of Pharmacology B.A., Colorado College; M.S., Nevada; Ph.D.,
- Illinois

  Norred, William P., III, Adjunct Assistant Professor
- of Pharmacology
  B.A., Emory; B.S. Pharmacy, Ph.D., Georgia
- B.A., Emory; B.S. Pharmacy, Ph.D., Georgia
- Phillips, Lyman Alfred, Jr., Assistant Professor of Therapeutic Medicine, Part-time, Co-staffed with the University Health Service B.S., Stetson; M.D., Miami
- Reigle, Thomas G., Assistant Professor of Pharmacology
  - B.S. Pharmacy, Cincinnati; Ph.D., Ohio State
- Ziance, Ronald Joseph, Assistant Professor of Pharmacology
  - B.S. Pharmacy, Ph.D., Pittsburgh

#### Department of Pharmacognosy

Connecticut

- Schramm, Lee Clyde, Associate Professor of Pharmacognosy and Head, Department of Pharmacognosy B.S. Pharmacy, Ohio State; M.S., Ph.D.,
- Gibson, Coy Avery, Assistant Professor of Pharmacognosy B.S. Pharmacy, South Carolina; M.S., Georgia;

Ph.D., Rhode Island

# GENERAL INFORMATION

#### **HISTORY**

In 1903, the committee on laws and disciplines of the Board of Trustees authorized the organization of a School of Pharmacy at The University of Georgia at Athens. At the same time, Dr. S. C. Benedict was appointed to the chair of Materia Medica in the school. Space was allocated in Terrell Hall for the school and six students enrolled for the 1904-1905 year. The educational objective of those six registrants was to matriculate for two

years and receive a Ph.G. degree.

In January 1907, due to an illness of Dr. Benedict. Mr. Robert C. Wilson was elected Instructor in Pharmacy to relieve Dr. Benedict of many of the classroom activities. Dr. Benedict remained as dean until 1914, when Professor Wilson was placed in charge of the Department of Pharmacy as director. In 1924, Professor Wilson became dean of the School of Pharmacy and made his report to the Board of Trustees in that capacity. He noted, for the first time, that the school had included women students. Dean Wilson's continuous struggle to improve pharmacy in Georgia led to development of the first four year pharmacy degree in the nation, beginning in 1926. In 1939, the school moved to quarters in New College and was accredited by the American Council on Pharmaceutical Education, a rating which has been maintained continuously since that time.

Upon Dean Wilson's retirement in 1948, Dr. Kenneth L. Waters was named dean of the School of Pharmacy. Under Dean Waters' guidance the school grew to the point where a new facility was deemed essential. The building was completed in 1964. One year later the first students of the five year pharmacy program graduated.

The new facility presented an opportunity for student body and faculty growth with faculty expe-



riencing the greatest percentage increase. Academic programs were improved and research output was significantly increased. The service program developed rapidly to the point where several faculty members were involved. An externship and clinical program were required of undergraduate students in an effort to present the optimum learning experience.

Upon Dr. Waters' retirement from the position of Dean in 1977, Dr. Howard C. Ansel was named to lead the School

read the School

#### **PURPOSE**

The purpose of The University of Georgia School of Pharmacy is to provide for the comprehensive academic needs of the profession of pharmacy. Manpower needs of the profession are supplied through the school's undergraduate education program, which prepares students for the practice of pharmacy, and through its graduate program, which prepares individuals for professional specialization and for a career in teaching and research. The postgraduate educational needs of the profession are met by the school's continuing education and service programs. Faculty research supports all of these programs and contributes to the advancement of the body of pharmaceutical knowledge.

#### **FACILITIES**

The School of Pharmacy is housed in facilities completed and occupied in the spring of 1964. Two basic concepts were incorporated into the design of the new building: 1) that it should be a functional facility conducive to learning; 2) that as many laboratory and research areas as possible should be on display. The first was considered basic to any educational building; the second was intended to stimulate interest in pharmacy among nonpharmacy students and interest in graduate work among undergraduate students.

The three floors and penthouse of the building contain a total of 96,000 square feet of space. The overall dimensions of the structure are 300 ft. by 96 ft. Basic construction is reinforced concrete and concrete block, with exterior windows of gray-tinted glass. The cost of construction and equipment was in excess of two million dollars.

The building is heated and air-conditioned by three systems serving the auditorium, main building, and animal quarters, respectively. In addition, separate temperature control of the exterior halls allows these to be used as buffer zones both in winter and in summer. Utilities supplied throughout the building include electricity, gas, water, circulating hot water, distilled water, steam, compressed air, and vacuum. Communications are served by an internal telephone and paging sys-

tem in all areas, plus public telephone service in faculty offices.

## PROGRAM OF STUDY AND RESIDENCE

The Bachelor of Science in Pharmacy degree is awarded to students who successfully complete a 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 School of Pharmacy. Nine quarters of residence in the professional program are required by the American Council on Pharmaceutical Education.

The University of Georgia Graduate School offers the degree Master of Science and Doctor of Philosophy in various specialty areas of the pharmacy school. (See Graduate School Bulletin.)

#### INTERNSHIP

In order to become licensed to practice pharmacy in the state of Georgia, 1500 hours of full time internship must be served under the supervision of a pharmacist. Credit for internship may be received only after a student has completed his pre-pharmacy work. Students are encouraged to serve internship during the summers. Four hundred hours of credit toward internship will be given for work performed while registered for academic credit in an authorized externship program.

All intern pharmacists must notify the Joint Secretary, State Examining Boards, 166 Pryor Street, S.W., Atlanta, Georgia 30303. The pharmacist supervising the intern must also notify the joint secretary that the intern is under his supervision. Termination of any portion of the internship must be reported by the pharmacist and the intern.

Students may apply for an intern license and begin to satisfy this requirement upon completion of the pre-pharmacy curriculum. An intern license is required for participation in the externship program.

### **ADMISSIONS**

To be admitted to the professional program in the School of Pharmacy, a student must complete the 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. Students with high academic averages, having 90 hours of credit, may be admitted with not more than 5 quarter hours of deficiencies in non-science required courses, provided such deficiencies are cleared with their pre-pharmacy adviser and are completed during their first professional year.

Application to the School of Pharmacy should be submitted by February 1. Transcripts showing all college work taken should accompany the application. Students may make application to the Dean of the School of Pharmacy when they have completed four quarters of work and are currently enrolled for 15 hours.

In considering applications for admission to the School of Pharmacy first priority will be given to Georgia citizens, second priority to U.S. citizens and third priority to all others. Preference will be given to those persons having a 2.5 or above grade point average. Applicants must have earned a minimum average of 2.0 on all work taken. It is required that each applicant take the Pharmacy College Admission Test (PCAT). A personal interview is desirable. The school will furnish a recommendation form to be completed and returned by an individual familiar with the applicant's educational background.

The University of Georgia complies with the Civil Rights Act of 1964, and is an Affirmative Action / Equal Employment Opportunity institution.

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student and this institution.

While the provisions of this bulletin will ordinarily be applied as stated, the University of Georgia 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 of changes will be available in the office of Dean Howard C. Ansel, School of Pharmacy, University of Georgia, Athens, Georgia 30602. 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.

## PRE-PHARMACY REQUIREMENTS CORE CURRICULUM

AREA 1

HUMANITIES English 101-102 Speech 108 Elective — (if literature is not included in the English courses, the elective must be chosen from Comparative Literature 121 or 122, English 131, 132, 203, 204 or foreign languages — intermediate level).	HOURS 10 5
AREA II MATHEMATICS AND NATURAL SCIENCE Mathematics 116 (or equivalent precalculus math) Chemistry 121, 122, 123	5 15
AREA III SOCIAL SCIENCE History 251 or 252 Political Science 101 Economics 105 Elective — Must be chosen from History 111, 112, 251, 252; Political Science 202, 203; Psychology 101, 258; Sociology 105, 260, 293; Anthropology 102	5 5 5
AREA IV MAJOR Chemistry 240-241 Biology 101-102 Physics 127-128 Physical Education	10 10 10

## PROFESSIONAL PROGRAMS First Professional Year

Pharmacy I 320¹ Pharmacy II 321 Int. Medicinal Chemistry 324-25 Biopharmacy 347 Medical Physiology 349-50 Pharmacy Law 390 Elective Microbiology 350-52	Hours 5 5 8 5 8 3 5 8
Microbiology 350-52	8

#### Second Professional Year<sup>2</sup>

	Hours
Pharmaceutics I, II, III 406-7-8	12
Principles of Drug Action 433-4-5	17
Biopharmacy 447	3
Pharmacognosy 404	4
Chemotherapy 475	5
Elective	5
Pharmaceutical & Health Care Service 495	5 3
Public Health 501	3

#### Third Professional Year<sup>2</sup>

inira Professional Year-	
	Hours
Externship 500	15
Dispensing Pharmacy 537-8	8
Disease and Therapeutics 585-6	6
Pharmacy Practice I, II 596-7	7
Professional Electives	9

<sup>&</sup>lt;sup>1</sup> Students must acquire proficiency in typing to satisfactorily complete this course.

<sup>&</sup>lt;sup>2</sup> Students generally must complete first year courses before beginning second year courses. A similar requirement exists for progression from second to third year.

### REGULATIONS

#### HOURS

In order to receive the Bachelor of Science degree in the School of Pharmacy, a student must have completed not less than 234 quarter hours of work with a cumulative average of at least 2.0.

#### **ACADEMIC LOAD**

All professional students in the School of Pharmacy must take a minimum academic load of twelve credit hours per quarter unless excused by the dean.

## PHARMACY EXTERNSHIP AND CLINICAL PROGRAMS

As a part of the curriculum, pharmacy students are required to participate in externship and clinical programs which provide the student with educational experiences in practice settings such as community pharmacies, hospital pharmacies, clinics, and teaching hospitals. During the course of their academic program, students may be required to obtain their externship and/or clinical education at an out-of-town location deemed by the faculty to be most suitable for the desired experience and training. Among the facilities presently being used are the teaching hospitals and clinics associated with the Medical College of Georgia, located in Augusta.

#### SCHOLARSHIP REQUIREMENTS

In addition to the general University requirements relative to scholarship, the following requirements must be met by all pharmacy students.

All first professional year students must have earned a minimum grade point average of 1.8 in not more than four quarters constituting their first professional year. Progress to the second professional year will not be allowed unless the minimum

grade point average is met or exceeded. During the first four quarters in the pharmacy school students must complete all deficiencies in prepharmacy courses as well as all 300-numbered pharmacy courses and two microbiology courses.

For students in academic difficulty, conditions for readmission and continuance in the pharmacy program will be set during a personal interview with the Dean and/or the pharmacy faculty academic committee.

Similarly, all students must have earned at least a 2.0 average since entering the School of Pharmacy by the end of their second professional year in order to progress to the third professional year.

A student will not be permitted to register for the same pharmacy course more than twice within any twelve month school year.

At least a grade of 2.0 must be earned in all required pharmacy courses before credit for the course will be given toward graduation.

#### REGENTS TESTS

All undergraduate students enrolled at the University of Georgia, native or transfer, are required to take and pass the Regents Testing Program (Rising Junior Exam) as a requirement for graduation.

An Exit Examination is required of all graduating seniors.

#### CLASSIFICATION OF STUDENTS

All professional students will be classified as six (6).

## LIMITATION OF STUDENT EMPLOYMENT

Since it is realized that classroom work must receive major emphasis in the student's program for securing an education, he should not accept employment which will interfere with his scholastic program. A student who makes a poor scholastic record as a result of working will be required to reduce his work load.



ACADEMIC PREPARATION

Students are expected to maintain a schedule of home study so they are prepared for daily classes and are always up to date in their course work. This requires students to establish early study habits best suited to their own capabilities and to adjust to the demands of the prescribed curriculum. The successful study of pharmacy necessitates the assimilation of a large amount of subject matter. The curriculum is arranged in a sequence to insure a progression of courses

which result in a meaningful correlation between the basic sciences and clinical areas of study and application. Courses do not end with final examinations each quarter, but supplement all others in the total professional curriculum.

#### CLASS ATTENDANCE

Regular attendance at classes, laboratories (including clinics) and examinations is a student obligation, and the unexcused absence, or "cut," is not recognized as a student privilege by the faculty of the School of Pharmacy. The student is expected to give reason for his absence to his individual instructor and to make up all work missed due to the absence. If a student is absent for five consecutive class meetings, the instructor will determine the reason and report the student to the dean's office, with a record of total absences and the tentative grade earned in the class to date.

#### **Excessive Absences**

If the student, after being counseled and reminded of the seriousness of his absences, shows insufficient improvement in class attendance, the instructor may request his withdrawal from the course and assign a "WF" grade.

#### **Excused Absences**

Under certain conditions and at the discretion of the dean, absences may be excused. Students anticipating absences or who experience unanticipated absences should report such to the dean's office as soon as practical before or after the absence, as appropriate.

#### **DRESS**

Students of pharmacy are expected to dress neatly and to otherwise exemplify professional men and women at all times.

#### ATTITUDE AND CONDUCT

A student whose attitude, actions or conduct, either on or off campus, are of a type which could discredit himself, the School of Pharmacy, The University of Georgia, and/or the pharmacy profession shall be subject to dismissal from the School of Pharmacy. Students in the school are also governed by the rules and regulations of The University of Georgia as outlined in the current general catalog. Special attention is directed to provisions in the general catalog and the student handbook concerning class attendance.

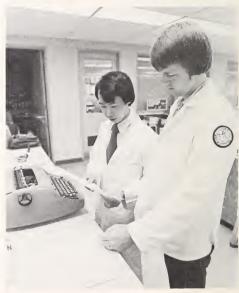
As a future member of the profession of pharmacy each student has the duty to observe the law, uphold the honor of the profession and accept its ethical standards of conduct. Adhering to these principles is an integral part of the training. For these reasons the students of the School of Pharmacy have established a code of ethics so that no student will bring discredit or dishonor to our profession. A pharmacy ethics court comprised of pharmacy students will review breaches of ethical conduct by students and propose disciplinary action where necessary. On admission, students will be required to sign a pledge adhering to the code of ethics of the school and to abide by the decisions of the ethics court.

Any student dismissed from the school, but not by the University, may within 30 days submit a written request to the school's academic committee for a review of his case. Each student is limited to one such review. The reviewing board's decision, after review by the dean, is final.

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

A student who was dismissed for academic reasons may apply for re-admission to the school after proper consultation with his academic counselor. His application, however, will be considered as a first application along with those of other new applicants.





### **GRADING SYSTEM**

For purposes of computing quarterly, yearly, and cumulative grade point averages, letter grades must be converted into numerical equivalents. The equivalents are:

Α	4.0
В	3.0
C	2.0
D	1.0
F	0
WF	0

The following symbols are used in the cases indicated, but will not be included in the determination of the grade point average.

- I This symbol indicates that a student was doing satisfactory work but, for non-academic reasons beyond his control, was unable to meet the full requirements of the course. The requirements for removal of an "I" are left to the respective institutions; however, if an "I" is not satisfactorily removed after three quarters of residence, the symbol "I" will be changed to the grade "F" by the appropriate official.
- W This symbol indicates that a student was permitted to withdraw without penalty. Withdrawals without penalty will not be permitted after a specified date except in cases of verified hardship.
- S This symbol indicates that credit has been given for completion of degree requirements other than academic course work.
- U This symbol indicates unsatisfactory performance in an attempt to complete degree requirements other than academic course work.
- V This symbol indicates that a student was given permission to audit this course. Students may not transfer from audit to credit status or vice versa.
- K This symbol indicates that a student was given credit for the course via a credit by examination program approved by the faculty.

#### ACADEMIC PROBATION

A student is placed on academic probation at the end of *any* quarter in which his cumulative grade point average is below 2.0. A student may remove himself from academic probation by achieving a 2.0 cumulative average.

## CUMULATIVE GRADE POINT AVERAGE

The cumulative grade point average in each institution of the University System of Georgia will be calculated by dividing the number of hours scheduled in all courses attempted in which a grade of A, B, C, D, F, or WF has been received into the number of grade points earned on those hours scheduled. The cumulative grade point average will be recorded on the students' permanent record. Institutional credit shall in no way affect the cumulative grade point average.

#### ACADEMIC DISMISSAL

A student will not be subject to dismissal from the University for academic deficiencies until he has been enrolled for three or more quarters (A student will be considered enrolled for any quarter in which he received a grade(s) other than a "W"). Thereafter he will be dismissed from the University if the cumulative average is below that required for the following designated number of total hours attempted:

Hours	Required Minimum
Attempted	Cumulative Average
3 - 44	1.5
45 - 89	1.6
90 - 134	1.7
135 - 179	1.8
180 - 239	1.9
240 or more	2.0

A student will not be dismissed from the University for academic reasons if he earned an average of 2.3 or higher on all hours attempted for the last quarter in residence provided he was enrolled for a minimum of 10 hours for that quarter.

Upon receiving a First Dismissal, a student will be suspended from the University for a minimum of two quarters. At the end of the suspension, readmission may be granted at the discretion of his academic dean.

After a Second Dismissal, only through appeal to the University Faculty Executive Committee can permission to return to the University be granted. A minimum of one calendar year must lapse be-

fore a student on Second Dismissal may petition

for readmission.

Hours attempted — Total hours attempted consist of all hours attempted at the University (including all hours with grades of "F" and "WF") plus all hours transferred to the University. Grades of "I" and "W" are not included in hours attempted.

Cumulative Grade Average — The cumulative average is the arithmetic mean of grades on all courses taken in residence at the University, including failing grades and grades on courses, which have been repeated. Grades of "W", "I", "S", "U", and "AU" (Audit) are not computed. Grades of "WF" are computed as "F". A minimum cumulative average of 2.0 for all undergraduate degrees will be required of all students first admitted to Fall Quarter 1971 and thereafter.



### FINANCES AND AID

#### **EXPENSES**

Expenses for resident students at the University of Georgia vary from \$600 to \$900 per quarter. These costs do not include travel, clothing, and incidental expenses.

Matriculation Fees	\$234.00
Out-of-State Tuition	\$551.00
Residence Halls	\$162.00-177.00
Meals	\$195.00-232.00
.Books	\$100.00
Lab Clothing and Equipment	\$35.00

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

#### AID

Students attending the University have nearly half the actual expense of their college education shared by the state of Georgia. Through the tax support of Georgians, The University of Georgia can offer a quality education at an economic cost.

In addition, the University attempts to provide financial help for any student who needs aid and is progressing normally toward graduation. No qualified student need hesitate to apply for financial aid if money is needed to pursue an education in pharmacy.

#### SCHOLARSHIPS AND LOANS

#### Loans

University and Federal Loan Funds

Pharmacy students are eligible to apply to Financial Aid Office, Academic Bldg., University of Georgia, Athens, Ga. 30602.

Georgia Higher Education Assistance Corporation

The state will guarantee the loan of money made by banks. Detailed information available from GHEAC office at P.O. Box 38005, Capitol Hill Station, Atlanta, Ga. 30334.

Dargavel Foundation

Pharmacy students are eligible to apply for loan funds from John W. Dargavel Foundation of the National Association of Retail Druggists and should write directly to the Dargavel Foundation, 32 W. Randolph St., Chicago, Ill. 60601.

Woman's Auxiliary of Georgia Pharmaceutical Association

Pharmacy students are eligible to apply to the dean's office.

Certain Emergency Loans are available through the Dean's office.

#### PROFESSIONAL SCHOLARSHIPS

(For students who have completed 2 years of pre-pharmacy work).

Georgia Pharmaceutical Association

Pharmacy scholarship in amount of \$300. Apply to 2520 Carroll Avenue, Atlanta, Georgia 30341.

State of Georgia Scholarships

The State Scholarship Commission has a number of scholarships based on financial need. Apply to State Scholarship Commission, P.O. Box 38005, Capitol Hill Station, Atlanta, Ga. 30334.

Scholarships Awarded by School of Pharmacy — Apply to dean's office.

Jacob G. Smith, awarded to a Savannah Area resident; J.D.S. Coleman, awarded to a Macon Area resident; John W. Dargavel; Women's Auxiliary of Georgia Pharmaceutical Association; Phi Delta Chi; Kappa Psi; Eckerd Drugs, Inc.; Pharmacy Wives; Randolph-Mercer; Mary Lou Gilleland Memorial.

## LOCAL SCHOLARSHIPS AND LOANS

Certain home-town firms and organizations offer scholarships and loans to deserving students. Students are urged to investigate home town possibilities

Applications for scholarships and loans should be made as soon as possible since funds are limited and six weeks are required for processing.

#### OFFICE WORK STUDY PROGRAM

Eligibility based on needs of student. Apply to Financial Aid Office, Academic Building, University of Georgia, Athens, Ga. 30602.



### STUDENT **ACTIVITIES**

#### PROFESSIONAL ORGANIZATIONS

During their academic career in the School of Pharmacy students are encouraged to begin to develop interest in professional activities. The primary route by which this interest may be expanded is through the Student Pharmaceutical Association which is affiliated with both the Georgia and American Pharmaceutical Associations. Active participation in this student function will not only stimulate interest in the profession but develop leadership and character.

Efforts to advance the pharmacy profession educationally, fraternally, and socially led to the installation of chapters of two professional fraternities, Phi Delta Chi and Kappa Psi; a sorority, Lambda Kappa Sigma; and a leadership fraternity, Phi Lambda Sigma. These organizations instill in their members a respect for diligence, sincerity, and brotherhood and assist in developing leadership characteristics. They sponsor activities beneficial to the School, the University, and the profession.

#### HONOR SOCIETIES

Pharmacy students who comprise the top twenty percent of their class academically may be invited to join Rho Chi, the national honorary pharmaceutical society. The invitation is usually extended during the last guarter of the second professional year. Pharmacy students are also eligible for membership in Phi Kappa Phi, national honor society, and various leadership societies on campus.

#### **AWARDS**

Beginning in 1948 and continuing annually thereafter, the School of Pharmacy has sponsored an awards banquet at which outstanding academic achievement, leadership and devotion to the profession by students are recognized. These awards may be scholarships, trophies, certificates, books or cash. By design, the majority of the awards presented at the banquet are to seniors but some are designated for first and second year students.





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# COURSES OF INSTRUCTION

#### **PHARMACY**

320. Pharmacy I. 5 hours.

Four hours lecture and three hours laboratory weekly.

Prerequisite: First Professional Year Standing. An introduction to pharmacy, including the history and literature of pharmacy, the types of professional practice, health care trends in the United States, drugs and dosage forms, the prescription and pharmacy calculations.

321. Pharmacy II. 5 hours.

Prerequisite: Pharmacy 320.

The various dosage forms, classes of pharmaceutical preparations, general methods of preparation and appropriate examples of currently used products are introduced. Pharmaceutical calculations involving dilutions and concentrations and special compounding procedure are included. The laboratory stresses compounding techniques.

406, 407, 408. Pharmaceutics I, II, III. 4 hours each

Three hours lecture and three hours laboratory weekly.

Prerequisite: Pharmacy 321, 325, 350, 347.

The general consideration of the underlying principles of dosage form design, compounding, and technology. Laboratory work involves the preparation and evaluation of the various dosage forms and the dispensing of compounded prescriptions. Prescription handling and dispensing experience at the University Health Service is a part of this sequence.

**500. Pharmacy Externship.** 15 hours.

Prerequisite: Pharmacy 435, 475 and 537.

A structured course conducted by selected pharmacy practitioners (preceptors) in off-campus community and institutional pharmacies. Each student will spend an entire academic quarter in the externship course at a designated location in Georgia. Normally, each student will spend five weeks in a community pharmacy and five weeks in an institutional pharmacy setting. A limited number of students will be selected to attend the clinical pharmacy externship program conducted at the Medical College of Georgia. Liability insurance and a Pharmacy Intern License are required for this course.

537. Dispensing Pharmacy. 4 hours.

Three hours lecture and three hours laboratory weekly.

Prerequisite: Pharmacy 407, 434, 390, 447.

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

538. Dispensing Pharmacy. 4 hours.

Three hours lecture and three hours laboratory weekly.

Prerequisite: Pharmacy 500.

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

#### PHARMACOGNOSY

#### 404. Pharmacognosy. 4 hours.

Prerequisite: Microbiology 352, Pharmacy 325, 347, 350.

The study of drugs of plant and animal origin with emphasis on their chemistry, pharmacological action, pharmaceutic and therapeutic uses. Major consideration is given to immunizing biological products, vitamins and those alkaloids, glycosides and enzymes currently used as drug products.

#### 475. Chemotherapy. 5 hours.

Prerequisite: 404, 433, 447.

A discussion of the chemistry, mechanism of action, pharmacology and therapeutic applications of antiseptic, antibiotic, antifungal, and antiprotozoan, anthelminitic, antiviral and oncolytic agents.

#### **PHARMACOLOGY**

**349, 350. Medical Physiology.** 4 hours each. Prerequisite: For 349, First Professional Year Standing.

Principles of physiology are studied with consideration given to those functions altered by drugs.

#### 354. Pharmacology of Drugs. 3 hours.

Prerequisite: Junior Standing.

Lectures and discussion designed to increase the nonpharmacy major's awareness of the general actions, uses and dangers of drugs.

#### 433, 434, 435. Principles of Drug Action.

Five hours lecture weekly for three quarters and three hours laboratory per week for 434 and 435. Prerequisite: Pharmacy 325, 347, 350; for 434, 404

A study of the actions of drugs in current use, emphasizing the chemical and pharmacological principles related to stability, bioavailability, structure-activity relationship, pharmacologic action, therapeutic application and toxicology.

### **585, 586. Disease and Therapeutics.** 3 hours each

Prerequisite: Pharmacy 434 for 585; Pharmacy 435 for 586.

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

## PHARMACY CARE ADMINISTRATION

#### 390. Pharmaceutical Law. 3 hours.

Prerequisite: First Professional Year Standing. A review of the various laws involved in pharmaceutical prescription practice and a study of the state and federal regulations including organization enforcement procedures. Consideration is also given to case histories involving negligence and malpractice.

### **495. Pharmaceutical and Health Care Service.** 3 hours

Prerequisite: Second Professional Year Standing. 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.

#### 501. Public Health. 3 hours.

A broad perspective of the philosophy of public health, the need for health services, and the efforts to provide those services through health and health-related programs in the United States.

#### 596. Pharmacy Practice I. 4 hours.

Prerequisite: Third Professional Year Standing. A study of the application of managerial principles to the professional practice of pharmacy.

#### 597. Pharmacy Practice II. 3 hours.

Prerequisite: Pharmacy 435.

This course intensively examines the behavior of the patient or consumer of pharmaceutical and health care services. A study of the psychological, sociological and demographic make-up of the patient is undertaken and related to the communicative process necessary in professional practice. Role playing, utilizing video tapes, is used for demonstration and evaluation.

#### MEDICINAL CHEMISTRY

### 324, 325. Intermediate Medicinal Chemistry. 4 hours each.

Prerequisite: First Professional Year Standing. An introduction to the basic principles of inorganic and organic chemistry as they apply to pharmaceutical systems. Discussions concerning physiochemical properties in pharmaceutical and biological systems is presented with emphasis on the nature of the roles played by inorganic and organic compounds on drug activity. Brief discussions of radiopharmaceuticals, organic nomenclature and drug analysis are also presented.

347-447. Biopharmacy. 8 hours.

Prerequisite: For 347, First Professional Year

Standing; for 447, 347.

A study of intermediary metabolism and metabolic regulation. Drug interaction with biochemical systems will be introduced.

**433, 434, 435. Principles of Drug Action.** (See listing under Pharmacology)

#### **HONORS COURSES**

496H, 497H, 498H, 499H. Independent Study and Honors Thesis. 5 hours each.

Prerequisite: Honors student in pharmacy. Individually directed study which will satisfy requirements for graduation with general honors. Project or study must be directed by approved assistant professor or higher.

## REQUIRED NON-PHARMACY COURSES

The following courses in the pharmacy curriculum are taught by the faculty of the College of Arts and Sciences. A description of the courses may be found in the College of Arts and Sciences section of The University of Georgia General Bulletin.

MIB 350, General Microbiology; MIB 352, Microbiology and Disease.

## UNDERGRADUATE PROFESSIONAL ELECTIVES

Prerequisite for all undergraduate professional electives: completion of first professional year requirements or consent of instructor.

504. Drug Dependency Education. 3 hours.

Prerequisite: Pharmacy 404.

A professional course covering various aspects of drug dependency and abuse including most types of drugs currently abused.

505. Non-Prescription Drugs. 3 hours.

Prerequisite: Second Professional Year Standing or consent of instructor.

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

**506. Microscopic Pharmacognosy.** 3 hours. Prerequisite: Pharmacy 404 or consent of instructor.

Application of microchemical and specialized techniques in the detection, separation and microscopic identification of drugs.

**521. Special Topics in Pharmacy.** 3 or 5 hours. Three or five lecture periods or the equivalent in laboratory periods.

#### 522. Industrial Pharmacy I. 3 hours.

Prerequisite: Pharmacy 407.

Two lecture and three laboratory hours weekly. Lectures to include a study of equipment used in pharmaceutical manufacturing. Laboratory work to involve pilot plant scale manufacturing.

#### 523. Industrial Pharmacy II. 3 hours.

Prerequisite: Pharmacy 407.

Two lectures and three laboratory hours weekly. To acquaint students with specialized pharmaceutical systems, processes and control procedures involved with liquid, semisolid, and aerosol dosage forms.

#### 524. Institutional Pharmacy. 3 hours.

Prerequisite: Pharmacy 321, 390.

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.

#### 549. Radio-Pharmaceuticals. 3 hours.

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

#### 560. Clinical Seminar. 3 hours.

Two lectures and three laboratory hours weekly. Prerequisite: Third Professional Year Standing or consent of department.

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.

#### 570. Clinical Clerkship. 3 hours.

Prerequisite: Third Professional Year Standing or consent of department.

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. Additional credit permitted on consent of instructor.

#### 584. Toxicology. 3 hours.

A study of the toxic mechanisms, toxic syndromes, antidotes, and emergency and supportive therapy for substances commonly implicated in accidental poisonings.

#### 590. Pharmacy Ethics. 3 hours.

This course deals with the problems faced by the community pharmacist as he strives to strike a balance between the demands of economic competition on the one hand and the demands of professional ethics on the other.

### **591. Problems in Pharmacy Management.** 3 hours.

An individualized computerized model of practice that permits student analysis of community pharmacy oriented managerial reports.

**594. Prescription Accessory Products.** 3 hours. A study of accessory products related to prescriptions, sickroom needs, rehabilitation and convalescent equipment, surgical supports and other appliances, and miscellaneous products of a general nature.

### 595. Household and Animal Health Products. 3

Three hours lecture and recitation.

Prerequisite: Second Professional Year Standing or consent of department.

The study of fumigants, rodenticides, insecticides, fumicides, weedicides, parasiticides and toxins, serums, vaccines, and related products commonly sold in the drug store. Ethics, economic and legal aspects will be stressed.

## **598. Undergraduate Research Problem.** 3 or 5 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 laboratory work necessary to prepare an acceptable report.



Inquiries and requests for information and application forms should be addressed as follows:

Office of the Dean School of Pharmacy University of Georgia Athens, Georgia 30602 Telephone: (404) 542-1911

#### Information about graduate programs:

Graduate Coordinator School of Pharmacy University of Georgia Athens, Georgia 30602 Telephone: (404) 542-4410

#### Housing for single students:

Department of University Housing University of Georgia Athens, Georgia 30602 Telephone: (404) 542-1421

#### Housing for married students:

Married Student Housing Office University of Georgia Athens, Georgia 30602 Telephone: (404) 542-1473

#### Payment of fees and deposits:

Treasurer's Office University of Georgia Athens, Georgia 30602 Telephone: (404) 542-1625

#### Scholarships and loans:

Office Student Financial Aid University of Georgia Athens, Georgia 30602 Telephone: (404) 542-6147