

School of Pharmacy

Michael C. Gerald, Ph.D., *Dean, School of Pharmacy*

Donna J. Fournier, Ph.D., *Associate Dean for Academic Affairs, School of Pharmacy*

Henry A. Palmer, Ph.D., *Associate Dean for Professional Affairs, School of Pharmacy*

Irene C. Burke, M.S., *Assistant Dean for Student Services, School of Pharmacy*

In 1941 the General Assembly took over the assets of the Connecticut College of Pharmacy and added this institution to the schools and colleges of the University of Connecticut. The pharmacy program, which had been "inaugurated under independent auspices" in New Haven in 1925, continued to operate there under State auspices until 1951, when the program was moved to Storrs.

The School of Pharmacy is phasing out the three-year professional B.S. in Pharmacy program (preceded by a two-year pre-professional course of study), the last class admitted to this program was fall 1996. The current professional doctor of pharmacy program (Pharm.D.) requires completion of the two years of pre-Pharmacy requirements, two years in the professional program leading to a Bachelor of Science with a major in Pharmacy Studies (BS Pharmacy Studies), followed by two additional years leading to a Doctor of Pharmacy (Pharm.D.). This professional BS/Pharm.D. program is a **full-time**, four-year professional program (132 credits professional program plus 64 credits pre-pharmacy for a total of 196 credits), making the Pharm.D. graduate eligible to stand for licensure. Students admitted to the University as freshmen in fall 1995 or thereafter should anticipate entering the Pharm.D. program rather than the B.S. in Pharmacy program. For the last two years of the professional program (Pharm.D. years), there will be additional tuition and required fees of approximately \$5000 per year (1996-97 dollars) for in-state students and proportional increases for New England Regional and out-of-state students.

The School of Pharmacy also offers a number of courses leading to the degrees of Master of Science and Doctor of Philosophy. Students holding the degree of Bachelor of Science may prepare for the Doctor of Philosophy degree with a major in pharmaceuticals, medicinal and natural products chemistry, pharmacology or toxicology. The Master of Science degree in pharmaceutical sciences may be awarded in the above subject areas and pharmacy administration (*see the Graduate School Catalog*.)

Regional Plan. In conformity with plans approved by the Boards of Trustees of the six New England land grant universities for regionalization of certain fields of specialized education, the University of Connecticut School of Pharmacy has been designated as a regional New England school for all other New England states except Rhode Island. To effectuate this policy, first priority in admission to the school is given to qualified applicants who are residents of Connecticut and second priority to qualified applicants from the other New England states with the exception of Rhode Island. Regional students receive a significant tuition savings over out-of-state tuition rates.

Admission. Admission to the professional program in Pharmacy is competitive. Students should apply for admission to the School of Pharmacy after completion of their third semester of study for entry into the professional program in the following September. All required math and science courses must be completed by May for entry into the professional program in the following September. Students must have 24 of the 30 general education course credits completed, including Soc 107, Econ111 and Coms 105, before admission into the fall semester. Students who have not fulfilled the University General Education requirements (Groups IVa, IVb, V and VI) before they enter the professional program will have to complete those courses during the summer sessions. Students entering the University after fall 1995 will complete their first two years in one of the schools or colleges of the University of Connecticut or in some other institution. Students may enter the College of Liberal Arts and Sciences as freshmen and identify themselves as pre-Pharmacy majors. Pre-Pharmacy students will be advised through the Academic Center for Exploratory Students (ACES).

Those students who meet all the following criteria will be considered for admissions first: 1) completion of all freshmen-sophomore course requirements at the University of Connecticut; 2) Earned a minimum of 3.0 grade point average (GPA) in all required math and science classes; 3) Earned a minimum GPA of 3.0 in English 105 and 109 or a grade of 3.0 in English 250; 4) Have no grade less than 2.0 in any of the above classes.

All other students will be considered on a competitive basis depending on seats available. To be competitive, students should have a total GPA and a science GPA of 2.7 or better. All required prerequisite science courses should have been passed with a grade of 2.0 or better.

Application deadline is **March 1** for September admission. Applications received after the deadline will be reviewed on a space available basis.

Communication Skills. It is essential that Pharmacy students have good written and oral communication skills. Students must be able to communicate effectively with patients, physicians and with other members of the health care team. The final applicant pool will be interviewed.

A Test of Spoken English (TSE) is required of all international applicants and U.S. citizens or permanent residents for whom English has not been the primary language. A minimum score of 50 is required for admission to the program.

Scholastic Standards. Students admitted to the professional pharmacy program must maintain the following standards of scholastic achievement to continue and/or complete the program:

- 1) A semester grade point average of 2.0 or above in required Pharmacy courses. (Students are subject to dismissal if there is more than one semester in which they earn a semester grade point average below 2.0 in required Pharmacy courses.)
- 2) A cumulative grade point average of 2.0 or above in all required Pharmacy courses is required to enroll in clinical clerkships/rotations.
- 3) A cumulative grade point average of 2.0 or above in all Pharmacy/University courses is required for graduation.

In addition, to demonstrate effective written and oral communication skills in English, the student must receive a grade of 2.0 or above in *Interpersonal Skills Development* (PHRM 206) and in *Prescription Processing Lab* (PHRM 210) to continue into the clinical experience sequence.

All required Pharmacy courses must be taken for a grade (*i.e.* may not be taken on Pass / Fail or Satisfactory / Unsatisfactory).

Failure to meet any of the requirements may result in dismissal of the student from the program.

The student has the right to appeal in writing to the Office of the Dean of the School of Pharmacy any dismissal decision.

Honors Program. Students in the School of Pharmacy may be eligible to participate in a variety of enrichment programs. These include independent research projects with a faculty mentor, the Degree with Distinction Program, the Honors Program, and the University Scholars Program. Each of these programs offers the motivated student a way of individualizing their intellectual environment to better meet their needs while providing distinction to their academic record. For more information on these programs, ask to speak with a Pharmacy Honors Advisor.

Accreditation. The University of Connecticut's Baccalaureate in Pharmacy program is accredited by The American Council of Pharmaceutical Education (ACPE), 311 West Superior Street, Suite 512, Chicago, IL 60610, 312/664-3575, 800/533-3606; FAX, 312/664-4652. The Board of Governors of the Department of Higher Education has licensed the University of Connecticut to accept students into the BS/Pharm.D. professional program. The University of Connecticut's Doctor of Pharmacy program is scheduled to be evaluated for candidate status during the academic year 1998-99 by the American Council on Pharmaceutical Education.

Physical Examination Requirements. All students, by the end of the first semester in the professional phase of their program, are required to have an initial physical examination including CBC and urinalysis. Additionally, all students are required to have Rubella Titer; a Varicella Titer; a Rubella Titer (note: even though you may have already had measles and/or chicken pox as a child, you still need titers); a DT (Diphtheria/Tetanus) shot; Hepatitis B immunization (a series of three injections for Hepatitis B and mandatory post-titer level); and a PPD. **The tuberculin Test or PPD must be repeated annually. In addition, a medical release form must be signed annually.** Rubella immunization is necessary if the titer is absent. You must have had an updated Tetanus immunization within the last 10 years.

Students may have the health requirements conducted by Health Services OR may elect to have the physical examination and required tests performed by a private physician.

In addition, the School of Pharmacy will provide, in compliance with the OSHA Blood Borne Pathogen Standard, mandatory annual educational sessions for all students.

Transportation. Students must provide their own transportation to clerkship or externship sites during the professional program. They should allow for transportation expenses, which would include cost of gasoline and parking fees

where necessary.

Health Insurance. All students in the professional phase of their pharmacy education are required to carry health insurance as stated in the University's health policy. It is the student's responsibility to present a completed Verification of Health Form to the Coordinator of Professional Experience Program, School of Pharmacy, Room 255. This must be done **annually**, prior to the start of classes. It is also the student's responsibility to re-present proof of coverage (by filling out a Verification of Health Insurance Form) to the Coordinator of Professional Experience Program in advance of the expiration date should it occur sometime in the middle of any semester.

Any medical expenses incurred by the student while participating in the clinical portion of the program will be assumed by the student.

Professional Liability Coverage. All students in the professional phase of the curriculum are required to carry specific professional liability (malpractice) coverage. You will automatically be billed for this on your University fee bill. Although the State of Connecticut has statutory protection for students in "field placement programs" (Chapter 53 of the Connecticut General Statutes), there are sites that will not accept this as adequate protection. Therefore, the School of Pharmacy has required II students to have the blanket University malpractice coverage.

Additional Degrees. Students wishing to take a second degree in another school or college should consult the associate dean of the School of Pharmacy early in their professional program.

Intern Registration. It is mandatory that all Pharmacy students register with the Connecticut Board of Pharmacy upon admission to the Pharmacy professional program. Failure to receive and maintain a valid Pharmacy intern card will result in students not being allowed to participate in clerkship, externship, or any of the other practica component of the curriculum.

License to Practice Pharmacy. Any request for information concerning Connecticut internship training requirements and other qualifications for examination and licensure as a pharmacist should be addressed to The Board Administration, Commission of Pharmacy, State Office Building, Hartford, Connecticut.

Degree Requirements for the Pharm.D. (B.S., B.S.P.) Upon recommendation of the faculty, the degree of Doctor of Pharmacy (Bachelor of Science in Pharmacy Studies, Bachelor of Science in Pharmacy) is awarded by vote of the Board of Trustees to students who have met the following requirements: (1) earned a total of 196 (125, 155) credits; (2) completed all requirements for the professional years and the Professional Program; (3) completed at least 30 credits of general education courses, defined as behavioral, social, and humanistic areas of knowledge; (4) satisfied the University's General Education Requirements; (5) earned at least a 2.0 grade point average for all calculable Upper Division course work; and (6) earned a 2.0 average for all calculable required Pharmacy courses.

Required Courses for the Professional Degree

I. General Education Requirements

The University Senate has adopted General Education Requirements in a variety of curricula areas, which must be satisfied as part of every degree program. These requirements are listed in the Appendix of this *Catalog*. The course requirements listed are those of the School of Pharmacy and also satisfy the University requirements.*

Group 1. Foreign Languages

This requirement is met if the student enters the University with three years of a single language in high school,** or the equivalent. With anything less, a student must complete two semesters of a single language at the University.

Group 2. Expository Writing

English 105 and 109 are required, and must be followed by two W courses. Students passing English 250 will be exempted from the English 105, 109 requirement.

* For the purpose of school and college curricula, skill code designations (W, Q, C) have not been applied to the respective courses. Skill code identification will be restricted to the Directory of Courses section.

** When the years of study have been split between high school and earlier grades, the requirement is met if the student has successfully completed the third-year high school level course.

Group 3. Mathematics

All students must complete Math 113 or 115, an additional Q course, and one C course. Required Pharmacy courses will satisfy the Q and C requirements. (Note: Mathematics 101 or a passing grade on the Q-Course Readiness Test is a prerequisite to all Q courses.) In order to take Math 115 students must pass either the Calculus Readiness Test, or a precalculus course. Students who fail the Calculus Readiness Test must take Math 112 and 113.

Group 4. Literature and the Arts

All students must take two courses, one emphasizing major works of literature, and the other major achievements in art or music.

Group 5. Culture and Modern Society

All students must take History 100 or 101, and a course emphasizing non-Western culture.

Group 6. Philosophical or Ethical Analysis

All students must take one course in philosophical or ethical analysis.

Group 7. Social Scientific and Comparative Analysis

All students must take Economics 111 and one 100's level sociology course.

Group 8. Science and Technology

Required pre-Pharmacy courses will satisfy this group requirement.

II. Required Courses and Recommended Sequences for the Pre-professional Years

First College Year First Semester

	Credits
CHEM 127 General Chemistry	4
BIOL 107 Principles of Biology	4
ENGL 105 English Composition	3
MATH 115 Calculus I.....	4

First College Year Second Semester

	Credits
CHEM 128 General Chemistry	4
HIST 100 or 101***	3
PHYS 121 General Physics	4
ENGL 109*** Literature and Composition	3

Second College Year First Semester

	Credits
CHEM 243 Organic Chemistry	3
ECON 111*** Principles of Economics	3
MCB 229 Fundamentals of Microbiology	4
COMS 105*** Principles of Public Speaking	3
General Education Requirement	3

Second College Year Second Semester

	Credits
CHEM 244 Organic Chemistry	3
SOCI 107*** Introduction to Sociology	3
MCB 203 Biochemistry	4
General Education Requirements	6

Total pre-professional credits - 64

I. The Professional Program

Students entering the professional program before fall 1997 will be following the three- year plan of study set out in previous catalogs leading to the B.S. degree in Pharmacy

Students will be admitted to the Pharmacy Studies degree program after completion of the two year pre-Pharmacy program (64 credits).

*** These courses need not be taken in the semester indicated but must be completed during the first two years.

First Professional Year - 30 credits**Fall**

	Credits
219 General Principles and Organ System Overview	3
233 Bio-Organic Chemistry I	3
201 Pharmaceutical Care	1
202 Health Care Organization	1
203 Social Behavioral Aspects of Pharmacy	2
204 Administrative Aspects of Pharmacy Practice & Principles of Pharmacoeconomics	4
	14

Spring

	Credits
220 Nervous System	5
234 Bio-Organic Chemistry II	3
235 Bio-Organic Lab	1
201 Pharmaceutical Care	1
206 Interpersonal Skills Development	2
Electives	5
	16

Second Professional Year - 31 credits**Fall**

	Credits
221 Cardiovascular/Renal/Respiratory	4
242 Solution & Solid Dosage Dosage Forms	4
244 Dosage Forms Prep Lab I	1
245C Pharmacokinetics	3
253 Therapeutics I	2
207 Pharmaceutical Care	1
	15

Spring

	Credits
222 Endocrine/GI Systems	3
246 Dispersed Systems	3
208 Pharmacy Law and Ethics	3
254 Therapeutics II	3
207 Pharmaceutical Care	1
297 Pathobiology	3
247 Dosage Forms Prep Lab II	1
	16

Total Credits for Bachelor of Science in Pharmacy Studies - 125 credits**Doctor of Pharmacy - 71 credits**

Students will be admitted to the Pharm.D. degree program after earning the BS in Pharmacy Studies at the School of Pharmacy, University of Connecticut

Third Professional Year - 35 credits**Fall**

	Credits
225 Toxicology	2
224 Chemotherapy	2
255 Therapeutics III	2
257 Clinical Pharmacokinetics	3
223 Pharmacology Discussion/Lab	1
209 Pharmaceutical Care	1
200 Evaluation Skills	3
Electives	3
	17

Spring

	Credits
226 Immunology	3
256 Therapeutics IV	3
211 Introduction to Clinical Practice	2
212 Prescription Processing (Lab)	3
210 Non-Prescription Medication	3
209 Pharmaceutical Care	1
Electives 2	4
	18

Fourth Professional Year

Students must have completed the BS in Pharmacy Studies and the first year of the Pharm.D. program

36 credits**Rotating Professional Experiences (1 credit = 40 hours)****Required (one month each) 16 credits**

	Credits
262 Prof. Experience in Community Pharmacy	4
263 Prof. Experience in Hospital Pharmacy	4
264 Prof. Exp. in Ambulatory Care Pharmacy	4
265 Prof. Experience in General Medicine	4
(may substitute Pediatrics or Geriatrics for Ambulatory Care and General Medicine)	

Electives, Group 1, minimum of 3 (one month each) 12 credits

	Credits
266 Professional Experience in Cardiology	4
267 Professional Experience in Infectious Disease	4
268 Professional Experience in Oncology	4
269 Professional Experience in Psychiatry	4
270 Professional Experience in Pediatrics	4
271 Professional Experience in Geriatrics	4

Electives, Group 2, minimum of 2 (8 credits)

	Credits
272 Professional Experience in Community Practice II	2 - 4
273 Professional Experience in Critical Care	2 - 4
274 Professional Experience in Dermatology	2 - 4
275 Professional Experience in Drug Control	2 - 4
276 Professional Experience in Emergency Medicine	2 - 4
277 Professional Experience in Home Health Care	2 - 4
278 Professional Experience in Hospital Pharmacy II	2 - 4
279 Professional Experience in Industry	2 - 4
280 Professional Experience in Managed Care	2 - 4
281 Professional Experience in Nuclear Pharmacy	2 - 4
282 Professional Experience in Nutrition	2 - 4
283 Professional Experience in Obstetrics/Gynecology	2 - 4
284 Professional Experience in a Skilled Care Nursing Facility	2 - 4
285 Professional Experience Surgery	2 - 4
PHAR 298 Special Topics in Pharmacy	2 - 4
PHAR 299 Research Experience (GPA 2.8)	2 - 4

Total credits for Doctor of Pharmacy - 196

Exemptions and Substitution. Students who desire to be excused from any of these requirements or to substitute other courses for those prescribed, should consult the associate dean of the school. Such exemptions or substitution must be approved by the Associate Dean of the School of Pharmacy.