

CAREER PATH

PHARMACEUTICAL SCIENTIST VS REGISTERED PHARMACIST

GEORGIA

College of Pharmacy

B.S. PHARMACEUTICAL SCIENCES

PROGRAM DESCRIPTION

The B.S. in Pharmaceutical Sciences is a 4-year undergraduate degree program designed to provide an education in drug development, drug discovery and laboratory-centered research.

ADMISSIONS REQUIREMENTS

Students must first be admitted by the Office of Undergraduate Admissions. Students in the Intended Pharmaceutical Sciences major must complete 60 credit hours of required courses, have a 2.5 cumulative GPA and complete all CHEM, BIOL, PHYS, ENGL and MATH courses with a grade of C or higher before they can be admitted into the major.

DEGREE REQUIREMENTS

Students admitted to the Pharmaceutical Sciences major must complete 60 credit hours of major requirements and complete all PMCY courses with a grade of C or higher. Students must also complete all other undergraduate degree requirements as mandated by the University.

NOTABLE EDUCATIONAL EXPERIENCES

Students in the Pharmaceutical Sciences program will learn Good Manufacturing Practices in a state-of-the-art laboratory. Students will also complete hands-on research directed by faculty members.

CAREER OPPORTUNITIES

Graduates from the Pharmaceutical Sciences program will be well prepared to fill critical roles in the pharmaceutical industry. These roles can be in pharmaceutical production, research laboratories, medical device development, biotechnology and drug development and discovery.

EXCELLENT GATEWAY FOR APPLYING TO...

PROFESSIONAL SCHOOLS – Medical, Pharmacy, Dental, Veterinary, Physician Assistant GRADUATE STUDIES – MS, PhD Pharmaceutical Sciences, Regulatory and Clinical Programs

DOCTOR OF PHARMACY (PHARMD)

PROGRAM DESCRIPTION

The Doctor of Pharmacy is a 4-year professional degree program that requires 69 hours of prerequisite courses (may take 3 years depending upon AP credits). It is designed to provide an education to those individuals who wish to become a pharmacist.

ADMISSIONS REQUIREMENTS

The Doctor of Pharmacy program requires completion of 69 credits of pre-pharmacy coursework at an accredited institution, completion of the PCAT, an admissions application submitted through PharmCAS, and an online application submitted to the College of Pharmacy. Selected applicants are also required to participate in an admissions interview. Applicant pool size determines the competitiveness of admission to the program.

DEGREE REQUIREMENTS

Students admitted to the Doctor of Pharmacy program must complete 148 credits of required coursework. Students must also become licensed Pharmacy Interns by the Georgia Board of Pharmacy.

NOTABLE EDUCATIONAL EXPERIENCES

Students will work in specially designed spaces that simulate environments and experiences found in pharmacies. In their 4th year, students will have the opportunity to take part in rotations in retail, hospital and community-based pharmacies throughout the State of Georgia.

CAREER OPPORTUNITIES

Graduates from the program will be eligible to become pharmacists. Pharmacists play a crucial role in the healthcare industry by dispensing medicines, administering vaccines, providing information to patients, and managing complex medication regimens.



BS PHARMACEUTICAL SCIENCES VS. PRE-PHARMACY (PHARMD)

College: Pharmacy

Department: Pharmaceutical and Biomedical Sciences

Major: Pharmaceutical Sciences (BS)

Years: 4

Description: Designed to prepare students to work in the pharmaceutical industry, this major consists of core classes in chemistry, biology, math and physics and then progresses to advanced classes in pharmacology, toxicology, drug discovery, development, manufacturing, quality assurance and regulatory compliance.

College: None **Department:** None

Major: Any

Years: 69 prerequisite hours (approx. 3 years undergraduate study)

+ 4 (PharmD study)

Description: The pre-pharmacy curriculum consists of the courses required for admittance into the PharmD program in UGA's College of Pharmacy. The PharmD degree is the minimum requirement to

become a pharmacist.

REQUIRED ENGLISH COURSES

ENGL 1101 English Composition I 1st yr Fall **ENGL 1102 English Composition II** 1st yr Spring

REQUIRED COMMUNICATION COURSE

COMM 1100 Public Speaking

REQUIRED MATH COURSES

STAT 2000 or BIOS 2010 Statistics or Biostatistics 1st or 2nd yr Calculus I 1st or 2nd yr MATH 2250 Calculus II 1st or 2nd yr or 3rd yr Fall MATH 2260

REQUIRED CHEMISTRY COURSES

CHEM 1211/1211L Freshman Chemistry I 1st yr Fall Freshman Chemistry II CHEM 1212/1212L 1st yr Spring Organic Chemistry I CHEM 2211/2211L 2nd yr Fall Organic Chemistry II 2nd yr Spring CHEM 2212/2212L

REQUIRED PHYSICS COURSE

PHYS 1211/1211L **Physics for Scientists** before 4th yr

REQUIRED BIOLOGY COURSE

BIOL 1107/1107L Biology I 1st or 2nd yr

BCMB 3100 Riochemistry & Molecular Biology 3rd yr Fall

REQUIRED MAJOR COURSES

DCIVID 3 100	biochemistry & Molecular biology	Siu yi rali
BCMB 3600	Genomics & Bioinformatics	3rd or 4th yr
ENGL 3590W	Professional Communication	3rd or 4th yr
PMCY 3000	Human Physiology	3rd yr Fall
PMCY 3200	Intro to the Pharmaceutical Sciences	3rd yr Spring
PMCY 3300L	Pharmaceutical Techniques	3rd yr Spring
PMCY 3500	Pharmaceutical Analysis	3rd yr Spring
PMCY 3800	Introduction to Pharmacology	3rd yr Spring
PMCY 4200	Pharmaceutical Sciences II	4th yr Fall
PMCY 4300	Medicinal Chemistry	3rd or 4th yr
PMCY 4500/4500L	Drug Development I	4th yr Fall
PMCY 4510/4510L	Drug Development II	4th yr Spring
PMCY 4960	Pharmaceutical Sciences Research I	4th yr Fall

Three elective courses from: BCMB 4030, BCMB 4200, CBIO 3010, CBIO 3710, CHEM 4113, CHEM 4120, EPID 2010, MIBO 3500

Pharmaceutical Sciences Research II

SYSTEM REQUIREMENTS REMAINING

PEDB

FYOS Seminar

PMCY 4970

US and GA History e.g. HIST 2111 or 2112 Federal and Georgia Constitution e.g. POLS 1101

Cultural Diversity

REQUIRED ENGLISH COURSES

ENGL 1101 English Composition I English Composition II ENGL 1102

REQUIRED COMMUNICATION COURSE

COMM 1100 or 1500 **Public or Interpersonal Communication**

REQUIRED MATH COURSES

MATH 2200 or 2250 Calculus I **Statistics** STAT 2000

REQUIRED CHEMISTRY COURSES

CHEM 1211/1211L Freshman Chemistry I CHEM 1212/1212L Freshman Chemistry II CHEM 2211/2211L Organic Chemistry I Organic Chemistry II CHEM 2212/2212L

REQUIRED PHYSICS COURSE

None

REQUIRED BIOLOGY COURSE

BIOL 1107/1107L Biology I BIOL 1108/1108L Biology II

OTHER REQUIREMENTS

BCMB 3100 or 4010 Biochemistry & Molecular Biology MIBO 2500 or 3000 or 3500 Microbiology CBIO* 3010 Anatomy

VPHY* 3100 or PMCY* 3000 or CBIO* 3710 Physiology ECON 2105 or 2106 Macroeconomics or Microeconomics

*The sequence CBIO 2200 and CBIO 2210 can substitute for CBIO and VPHY or PMCY

Two Social Science courses from: ANTH, HIST, INTL, PHIL, POLS, PSYC, SOCI, WMST

Three World Languages & Culture courses from: AFAM, AFST, AMHA, ARAB, ARHI, BENG, CHNS, CLAS, CMLT, FREN, GEOG, GREK, GRMN, HEBR, HIST, INDO, ITAL, JPNS, KREN, LACS, LAND, LATN, LING, MAND, NAMS, PASH, PERS, PORT, QUEC, RELI, ROML, RUSS, SCAN, SEMI, SLAV, SPAN, SWAH, TURK, URDU, VIET, YORB

SYSTEM REQUIREMENTS REMAINING

Not Applicable

4th yr Spring

PharmD Admissions Counselor

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