The Pre-Pharmacy program of study at ETSU prepares students for application to a 3- or 4-year Doctor of Pharmacy (PharmD) degree program. Students may apply to some pharmacy schools after the successful completion of two years of undergraduate coursework. Completion of a bachelor's degree, however, is strongly recommended.

**Careers in Pharmacy**

Pharmacists dispense prescription medications to patients and offer advice on their safe use. Some pharmacists who own a store or manage a chain pharmacy spend a considerable amount of time on business activities such as inventory management.

Pharmacists also take part in continuing education throughout their careers to keep up with the latest advances in pharmaceutical science. Pharmacists who work in universities or for pharmaceutical manufacturers are involved in researching and testing new medications.

With most drugs, pharmacists use standard dosages from pharmaceutical companies. Some pharmacists, however, create customized medications by mixing ingredients themselves through a process known as compounding.

The majority of pharmacists work in community pharmacies, but demand is increasing for pharmacists in a variety of occupational settings, including:

- academic pharmacy
- consultant pharmacy
- informatics
- managed care pharmacy
- federal pharmacy (military/public health setting)
- ambulatory care pharmacy
- hospital and institutional pharmacy
- pharmaceutical sciences

**Employment Opportunities**

- 286,400 jobs in 2012
- 327,800 jobs projected in 2022
- Median Annual Wage $116,670 in 2012

For more information, see the Bureau of Labor Statistics [http://www.bls.gov/ooh/healthcare/pharmacists.htm](http://www.bls.gov/ooh/healthcare/pharmacists.htm)

**Pharmacists**

- dispense prescription medications to patients
- offer advice on their safe use
- may own a store or manage a chain pharmacy
- spend time on business activities like inventory management
- take part in continuing education
- use standard dosages from pharmaceutical companies
- may create customized medications

**Careers in Pharmacy**

- academic pharmacy
- consultant pharmacy
- informatics
- managed care pharmacy
- federal pharmacy
- ambulatory care pharmacy
- hospital and institutional pharmacy
- pharmaceutical sciences

**Timeline**

**Pre-pharmacy is not a major.** Therefore, you must choose a major (and minor, if appropriate) by the time you earn 60 credit hours. Pharmacy schools are interested in students who excel in the sciences and mathematics, but you do not have to major in these disciplines. Choose a major/minor that you enjoy and that plays to your strengths.

**You must meet with your advisor each semester.** You are required to meet with your pre-professional and major advisors each term before registering for the next. Students who receive scholarships or participate in specialized ETSU programs (such as athletics or Honors College programs) must also seek advisement from those departments. Serious consequences can occur if students fail to meet with advisors (e.g., failure to graduate on time, missing appropriate courses to prepare for the PCAT, etc.).
What does it take to get into pharmacy school?

Overall GPA

3.35

PCAT

62

average GPA for the 2014 entering class at the Bill Gatton College of Pharmacy

average composite PCAT score for the 2014 entering class at Gatton College of Pharmacy

Core Preparation Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Required by Gatton College of Pharmacy*</th>
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<tbody>
<tr>
<td>General Biology</td>
<td>BIOL 1110/1111, 1120/1121</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>CHEM 1110/1111, CHEM 1120/1121</td>
</tr>
<tr>
<td>Physics</td>
<td>PHYS 2010/2011</td>
</tr>
<tr>
<td>Microbiology</td>
<td>HSCI 3320/3321</td>
</tr>
<tr>
<td>Communication</td>
<td>ENGL 1010, Gen Ed Speech</td>
</tr>
<tr>
<td>Calculus</td>
<td>MATH 1910</td>
</tr>
<tr>
<td>Probability and Statistics</td>
<td>MATH 1530</td>
</tr>
<tr>
<td>Economics</td>
<td>ECON 2210 or 2220</td>
</tr>
<tr>
<td>Social Sciences or Humanities</td>
<td>ENGL 1020 recommended</td>
</tr>
<tr>
<td>Additional writing-intensive</td>
<td></td>
</tr>
<tr>
<td>oral communication-intensive</td>
<td></td>
</tr>
<tr>
<td>Elective (science recommended)</td>
<td></td>
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</tbody>
</table>

Additional Recommended Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Required by Gatton College of Pharmacy*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry</td>
<td>BIOL 4147/4157 or 4167/4177</td>
</tr>
<tr>
<td>Human Anatomy</td>
<td>HSCI 3000</td>
</tr>
<tr>
<td>Human Physiology</td>
<td>HSCI 3020</td>
</tr>
<tr>
<td>Calculus II</td>
<td>MATH 1920</td>
</tr>
<tr>
<td>Immunology</td>
<td>HSCI 3540</td>
</tr>
</tbody>
</table>

*Different schools may have different prerequisite requirements. It is up to the student to research and ensure the required courses are completed before application to the preferred school(s) of interest.

Most pharmacy schools participate in the Pharmacy College Application Service (PharmCAS) at http://www.pharmcas.org. An application will be completed through this service and will then be administered to the pharmacy school(s) of your choice. Most schools require a supplemental application that will be supplied by the school.

The application deadline is different for each school. It is important to be aware of the deadlines and submit your applications as early as possible. During the application process, most schools will require at least two letters of recommendation, one of which should be from a pharmacist. Therefore, it is important for you to establish a strong relationship with the person(s) you are shadowing.

Pre-Pharmacy Plus program

East Tennessee State University, in conjunction with Gatton College of Pharmacy, will offer a guaranteed interview and waiver of the supplemental application fee at the Gatton College of Pharmacy for any ETSU undergraduate or post-baccalaureate student who meets certain established eligibility criteria. For criteria and more information, visit http://www.etsu.edu/cas/mpa.

Suggested two-year schedule for pre-pharmacy students

Freshman

Fall

CHEM 1110/11
BIOL 1110/11
MATH 1720/1910
ENGL 1010
PREH 1350

Spring

CHEM 1120/21
BIOL 1120/21
ENGL 1020
MATH 1530
ELECTIVE

Sophomore

Fall

CHEM 2010/11
HSCI 3320/21
SPCH*
ELECTIVE
ELECTIVE

Spring

CHEM 2020/21
PHYS 2010/11
ECON 2210 or 2220
ELECTIVE
ELECTIVE

Students should maintain a minimum of 17-19 credit hours per semester.

* Consult your advisor before choosing a speech course
STUDENT ORGANIZATIONS

Alpha Epsilon Delta – National Pre-Health Honor Society (AED)
AED functions as a health pre-professional honor society encouraging excellence in scholarship. It emphasizes the importance of health education and promotes cooperation and contact among professionals.

Pre-Pharmacy Student Organization (PPSO)
The Pre-Pharmacy Student Organization allows pre-pharmacy students the opportunity to gain information on the steps leading to pharmacy school. Students also receive guidance to make themselves competitive applicants for pharmacy school and learn about the content of the PCAT exam. The organization also invites speakers from local pharmacies and pharmacy schools.

Health Occupations Students of America (HOSA)
HOSA provides students with knowledge and understanding of various health careers. It also allows students to compete in various state and regional competitions to learn about current health issues.

Minority Association of Pre-Health Students (MAPS)
This organization is open to all ETSU students. MAPS aims to provide students with valuable opportunities in the community to enhance their knowledge of the health care field they are planning to enter. Opportunities include job shadowing, volunteering, and research. MAPS is also geared toward forming friendships among members.

What can I do now to strengthen my application to pharmacy school?

RELATED EXPERIENCE
Students are encouraged to explore the field of pharmacy either through employment or as a volunteer. Pharmacy schools want to know that a student has worked in the field, observed what is involved, and still has the desire to continue in that profession. Students should gain as much experience as possible without sacrificing grades.

EXTRACURRICULARS
The admissions committees of pharmacy schools are interested in seeing a range of extracurricular activities, especially those demanding a significant leadership role. Students should demonstrate their ability to balance full academic schedules with extracurricular involvement on and off campus and/or through employment opportunities. ETSU has many organizations that students can join. Students should visit the SORC located on the first floor of the Culp center or www.etsu.edu/sorc for more information regarding extracurricular activities. It is not sufficient to simply join an organization; you must demonstrate leadership qualities!

VOLUNTEER EXPERIENCE
Pharmacy schools are looking for candidates who express a commitment to community service. Students should seek volunteer projects that focus on giving back to the community, especially those related to pharmacy.

ONLINE ETIQUETTE
Please consider personal email addresses when corresponding with professional schools. First impressions are often based on correspondence and email addresses should be appropriate for professional communication. Messages and images sent electronically are reflections of judgment and potential suitability for professional careers. Inappropriate behaviors shared on an accessible venue can be viewed and shared by anyone, possibly compromising your admission to pharmacy school.

WATCH WHAT YOU POST!