Pharmacy Interest Guide
2021-2022

Pharmacists help patients with almost anything related to the use of medications. Pharmacists are one of the most accessible members of the healthcare team. Pharmacists are a key member in the medication distribution process to ensure patients receive medications safely. They advise patients, as well as physicians and other health practitioners, on the selection, dosages, interactions, and side effects of medications. Pharmacists monitor the health and progress of patients to ensure the medications are working safely and effectively. Many pharmacists work in a community setting, such as a drugstore, or in a health care facility, such as a hospital.

Some pharmacists specialize in specific drug therapy areas, such as oncology, nuclear pharmacy, nutrition support, geriatrics, pediatrics and psychiatric pharmacy. Some conduct research for pharmaceutical manufacturers, developing new drugs and therapies and testing their effects on people. Others work in marketing or sales, providing expertise to clients on a medication’s use, effectiveness, and possible side effects. Some pharmacists work for health insurance companies, developing pharmacy benefit packages and carrying out cost-benefit analyses on certain drugs. Other pharmacists work for the government, managed care organizations, public health care services, or the armed services. Finally, some pharmacists are employed as college faculty, teaching classes and performing research in a wide range of areas. (Some content taken from the Occupational Outlook Handbook)

Students attend a four year professional pharmacy program after completing two or more years of undergraduate pre-pharmacy coursework. The University of Iowa offers a Doctor of Pharmacy (Pharm.D.) degree, which is fully accredited by the Accreditation Council for Pharmacy Education (ACPE). Some graduates may further their education by applying to pharmacy residency programs.

Sample Pre-Pharmacy Four-Year Academic Plans

Plan A: Starting with General Chemistry and Pre-Calculus

Year 1
RHET:1030 Rhetoric
CHEM:1070 General Chemistry I
MATH: based on UI math placement
CHEM:1110 Princ. of Chemistry I
MATH:1460 Calculus for Bio. Sciences
General Education Elective

Year 2:
CHEM:1120 Princ. of Chemistry II
BIOL:1411 Found. of Biology
General Education Elective
CHEM:2210 Org. Chemistry I
BIOL:1412 Div. of Form & Function
Statistics (any except STAT:1010)
General Education Elective

Year 3:
CHEM:2220 Org. Chem II
ACB:3110 Human Anatomy
BIOC:3110 Biochemistry
HHP:3500 Human Physiology
MICR:3164 Microbiology
PHYS:1400 Basic Physics*
General Education Elective
General Education Elective
Plan B: Starting with Principles of Chemistry I and Calculus

Year 1:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Summer:</th>
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<tbody>
<tr>
<td>RHET:1030</td>
<td>Rhetoric</td>
<td>CHEM:1120</td>
<td>Princ. of Chem II</td>
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<tr>
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<td>Princ. of Chemistry I</td>
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<td>Found. of Biology</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>MATH:1460</td>
<td>Calculus for Bio. Sciences</td>
<td>Statistics</td>
<td>(any except STAT:1010)</td>
<td>Take PCAT</td>
</tr>
</tbody>
</table>
|             | General Education Elective **         |             |                                       | in July or Sept.
|             | General Education Elective            |             |                                       | Apply to        |
|             |                                       |             |                                       | Pharmacy Schools|

Year 2:

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CHEM:2210</td>
<td>Organic Chemistry I</td>
<td>CHEM:2220</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>ACB:3110</td>
<td>Human Anatomy</td>
<td>HHP:3500</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>BIOL:1412</td>
<td>Diversity Form &amp; Funct.</td>
<td>MICR:3164</td>
<td>Microbiology</td>
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<tr>
<td></td>
<td>General Education Elective</td>
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*The UI College of Pharmacy requires one year of high school physics, PHYS:1400 Basic Physics with or without a laboratory, or a physics course equivalent to PHYS:1400 with or without a lab.

** For application to the UI College of Pharmacy, completion of the College of Liberal Arts and Sciences General Education Program is not required, but it is highly encouraged. However, certain courses are not accepted by the UI College of Pharmacy; a list of these courses may be found at the end of this guide.

UI College of Pharmacy Admissions Profile 2021

Approximately 88 students matriculated
Cumulative GPA: 3.3
PCAT Raw Score: 410 composite
48 students had a Bachelor’s Degree or higher

The Application Process

Students should begin researching schools early in their academic careers as programs have different admission requirements. Students can apply to over 100 pharmacy schools, including the UI College of Pharmacy, by completing their initial application through the web-based Pharmacy College Application Service (PharmCAS) at pharmcas.org. Programs not participating in PharmCAS accept applications directly to their schools. Schools using PharmCAS may or may not require a supplemental application; check with each program. PharmCAS also has in-depth information about preparing to apply, a list of pharmacy schools, and important deadlines.

UI Pharmacy applicants must have a minimum of 16 General Education credits to apply, although completion of 24 General Education credits is required to graduate with a PharmD. For UI admission in Fall 2022, applications are accepted between mid-July 2021 through February 1, 2022. Each applicant must complete the PharmCAS application which includes letters of reference and transcripts. A supplemental application and fee is not required. Applicants must also meet UI’s technical standards.

Assured Admissions

UI does offer an assured admissions program for high school candidates. Students need to apply by February 1 with the class being selected by March 15. To learn more, visit https://pharmacy.uiowa.edu/pharmd/admissions/high-school
Diversity in the Pharmacy Profession
Many pharmacy schools, including the UI College of Pharmacy, seek a diverse class of students. Programs seek to recruit individuals from diverse ethnicities, socioeconomic backgrounds, and life experiences to the Pharmacy profession and to equip them with the necessary clinical and professional knowledge, skills and abilities to provide high quality, compassionate medical care to diverse patient populations. Students may contact individual pharmacy schools for more information. For more information about the UI’s commitment to diversity, visit https://pharmacy.uiowa.edu/about/diversity_equity_inclusion

Entrance Examination Requirement (PCAT)
For the 2021-2022 application cycle only, UI has made the PCAT optional. However, if a candidates’s math and science GPA are below a 3.0, the PCAT is highly recommended as a way to strengthen the application. The Pharmacy College Admission Test (PCAT) can be found at www.pcatweb.info. Scores must be sent to PharmCAS whose code number is 0104. It is recommended to take the PCAT in July and retest in the fall only if needed. It must be taken no later than November prior to the application deadline (be aware that the number of fall test seats are limited). Pre-registration for the exam is required; dates are listed on the PCAT web site. Students register for the test online. The UI College of Pharmacy accepts PCAT scores for two years. The registration fee is $210. Study guides and practice tests are strongly recommended and can be purchased at the PCAT site.

Letters of Reference
Two letters of reference are required; additional letters will also be accepted. Letters are processed through the PharmCAS application service and may be submitted electronically. These letters can be from an employer, professor, pharmacist, supervisor of a community service project, etc. They may not come from a family member or friend.

Interviews
Interviews vary by school; students should check with their individual schools for interview timelines. The UI College of Pharmacy requires individual interviews either online or in person. Applicants selected for an interview will be contacted via email. Interviews are held September-May. Interview day consists of a 30-minute closed-file interview with 2 or 3 interviewers, a written essay, a tour of the Pharmacy Building given by current pharmacy students, a faculty panel, current student panel, and overview of the PharmD program. Practice interviews are available through the UI Career Center in C310 Pomerantz Center.

Criminal Background Checks
The PharmCAS requires applicants to report any felony and misdemeanor convictions. The UI College of Pharmacy performs criminal background checks on newly enrolled students. Other schools may participate in a centralized criminal background check and drug screening as well. Applicants using PharmCAS will also need to sign a Code of Conduct.

Citizenship/International Students
Pharmacy schools differ as to whether they accept U.S. permanent residents and/or foreign citizens. Applicants are encouraged to check PharmCAS (under School Directory>PharmD Directory>International Applicants) for each school’s admission policy. The UI College of Pharmacy will consider applications from U.S. citizens, U.S. permanent residents, Canadian, and other foreign citizens.
**Student Organization**

Students wanting to learn more about the profession should attend Pre-Pharmacy Club meetings which provide educational and social opportunities for pre-pharmacy students. Meetings feature pharmacy student and alumni panels, a review of Iowa’s admission requirements, and talks by pharmacists. Contact Liz Davis, Director of Admissions, elizabeth-tjaden@uiowa.edu to learn more.

**Websites**

UI College of Pharmacy: pharmacy.uiowa.edu
Pharmacy College Application Service (PharmCAS): pharmcas.org
American Association of Colleges of Pharmacy: www.aacp.org

**Pre-Pharmacy Coursework Checklist***

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<td>BIOL:1411</td>
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<td>BIOL:1412</td>
<td>Diversity of Form &amp; Function**</td>
</tr>
<tr>
<td>ACB:3110</td>
<td>Human Anatomy, HHP:3105 Anatomy for Human Physiology, or HHP:1100 Human Anatomy</td>
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<tr>
<td>STAT:XXXX</td>
<td>Statistics (any course except STAT:1010)</td>
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<tr>
<td>MICR:3164</td>
<td>Microbiology &amp; Human Health</td>
</tr>
<tr>
<td>HHP:3500</td>
<td>Human Physiology(preferred),***</td>
</tr>
<tr>
<td>or HHP:3550</td>
<td>Human Phys. with Lab</td>
</tr>
<tr>
<td>PHYS:1400</td>
<td>Basic Physics if needed****</td>
</tr>
</tbody>
</table>

16 credits General Education Electives are needed to apply with 6 of those 16 sh from within the Social Sciences (ANTH, ECON, POLI, PSY, or SOC). 24 sh General Education Electives are needed to graduate from the Pharm.D. program. It is recommended that students complete the College of Liberal Arts and Sciences General Education Program.

Applicants are strongly encouraged to choose Gen Ed credits in the following areas: oral communication skills, psychology, genetics, medical humanities, cultural perspectives, and an experience in service learning. See your advisor for suggestions. Note that classes may not be in the following areas:

- No additional math or science classes
- No activity-based classes or CPR classes
- No P.E. classes such as jogging, weight lifting, etc.
- No performance-based classes such as vocal or instrumental music classes
- No vocational/technical classes from a community college or junior college

* Students must earn a C- or higher on each course listed above for the UI College of Pharmacy.
**The UI College of Pharmacy recommends that students take their biology sequence at the same school, and recommends an additional genetics course from BIOL:1311, 2211, 2512, 3713, or 3716 or HHP:4450.
***Preferred. Only take different course if time conflict.
****One year of high school physics or PHYS:1400 Basic Physics with or without a lab must be completed, or a physics course equivalent to PHYS:1400 with or without a lab.

**Please note:** The above are prerequisites for the UI College of Pharmacy. Other pharmacy programs may have different requirements. Check the websites of individual schools or contact your pre-pharmacy advisor for more information.