MUSC College of Pharmacy

Cathy Worrall, BSN, PharmD, BCPS, FAPhA
Associate Dean for Admissions & Student Affairs

Changing What’s Possible | MUSC.edu
Is Pharmacy Right for You?

I specialize in pediatrics.
I improve the lives of my patients.
I am an essential member of the health care team.

So you want to be a doctor?
My name is Dr. Garner.
I AM A PHARMACIST.
What Do You Think of When You Hear the Word “Pharmacy”?
Are These Images That Came to Your Mind?
What Do You Think of When You Hear the Word “Pharmacist”?
Are These Images That Came to Your Mind?
Expanding Role of Pharmacists

Product Centered  

Patient Centered
Contemporary Images of a Pharmacist
10 Reasons to Become a Pharmacist

1. I Want to Help People Get Well
2. I Like to Work Directly with Patients
3. I Enjoy a Wide Variety of Career Opportunities
4. I Can Benefit from the Demand For Pharmacists
5. I Want to be an Important Member of the Healthcare Team
6. I Can Have Job Mobility, Stability, and Flexibility
7. I Can Be Part of Major Innovations in Medication Therapy
8. I Want to Work with State-of-the-Art Technology
9. I Can Help Defend Against Bioterrorism
10. I Would Like to Be a Highly Respected Member of My Community

https://www.aacp.org/resource/top-ten-reasons-become-pharmacist
Responding to COVID: Compounding Pharmacist – Making Hand Sanitizer
Responding to COVID
Ambulatory Care Pharmacists - Curbside Service
Responding to COVID
Providing COVID Immunizations
Careers in Pharmacy

- Academia
- Ambulatory Care
- Chain Community Pharmacy
- Compounding Pharmacy
- Corporate Management
- Government/Federal Pharmacy
- Home Health Care
- Health System Pharmacy: Inpatient & Outpatient
- Independent Community Pharmacy

- Long-Term Care
- Mail Order Pharmacy
- Managed Care
- Medical Communications & Drug Information
- Nuclear Pharmacy
- Pharmaceutical Industry: Medical Liaison, Research & Development, Marketing
- Pharmacy Benefit Management
- Specialty Pharmacy
How Do I Become A Pharmacist?
MUSC College of Pharmacy Early Assurance Program (EAP)

A highly competitive admission program designed for exceptional high school seniors

Earn conditional acceptance to the MUSC Doctor of Pharmacy (Pharm.D.) program

Accelerate education, reduce debt, and jumpstart success in health care career
Early Assurance Program (EAP) Criteria

3.2 or higher unweighted GPA at the end of the fall semester of senior year

Minimum of 26 on the ACT or 1250 on the SAT

Achieve admittance to an accredited undergraduate program of your choice by the end of the spring semester

Commit to pursuing a career in pharmacy by taking the most demanding science and math courses available
PharmDirect Application Process

Application opens August 31st
Application deadline June 1st
Submit qualifying ACT/SAT scores to MUSC Enrollment Management
• ACT school code 6440; SAT school code 5407
Submit three letters of recommendation through PharmDirect
Submit personal statement/essay through PharmDirect
Meet with MUSC College of Pharmacy Admissions Manager
Meet the MUSC College of Pharmacy Technical Standards
Conditions to Maintain Program Eligibility

Successfully complete all pre-requisite coursework in a maximum of two academic years while maintaining a GPA of 3.2 or higher

Attend the MUSC College of Pharmacy PREP+ program the summer prior to completion of pre-requisites for the program

Work/shadow a minimum of 20 hours in pharmacy or complete the MUSC College of Pharmacy Pre-pharmacy Certificate Program

Submit a PharmCAS and supplemental applications by October 1 the fall semester prior to starting the Pharm.D. program

Successfully interview with the College in the fall semester prior to starting the Pharm.D. program

Successfully pass the required background check

Continue to satisfy the technical standards for the admission, progression and graduation of the Pharm.D. Program
Early Assurance Program Prerequisites

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Chemistry</td>
<td>8</td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td>8</td>
</tr>
<tr>
<td>Physics</td>
<td>3</td>
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<tr>
<td>Calculus</td>
<td>3</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Biology</td>
<td>8</td>
</tr>
<tr>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>English Literature/Composition</td>
<td>3</td>
</tr>
<tr>
<td>Verbal Skills</td>
<td>3</td>
</tr>
<tr>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Liberal Arts Electives</td>
<td>9</td>
</tr>
<tr>
<td>Anatomy/Physiology</td>
<td>6</td>
</tr>
<tr>
<td>Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>66</td>
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</table>
# Early Assurance Program Course of Study

## Pre-Pharmacy First Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>Hours</td>
</tr>
<tr>
<td>Biology&lt;sup&gt;1&lt;/sup&gt;</td>
<td>4</td>
</tr>
<tr>
<td>General Chemistry&lt;sup&gt;2&lt;/sup&gt;</td>
<td>4</td>
</tr>
<tr>
<td>English</td>
<td>3</td>
</tr>
<tr>
<td>Liberal Arts Elective&lt;sup&gt;3&lt;/sup&gt;</td>
<td>3</td>
</tr>
<tr>
<td>Calculus</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

<sup>1</sup>Biology must be for science majors & include lab component  
<sup>2</sup>Chemistry must be for science majors & include lab component  
<sup>3</sup>Liberal art electives accepted include humanities and social science courses. Examples of commonly accepted humanities include: art, business, ethics, creative writing, fine arts, languages, music, religion, and theatre. Examples of social sciences include anthropology, additional economic courses, child development, geography, history, management, political science, social work, sociology, and women's studies.

## Pre-Pharmacy Second Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>Hours</td>
</tr>
<tr>
<td>Human Anatomy &amp; Physiology I&lt;sup&gt;5&lt;/sup&gt;</td>
<td>3</td>
</tr>
<tr>
<td>Organic Chemistry I&lt;sup&gt;2&lt;/sup&gt;</td>
<td>4</td>
</tr>
<tr>
<td>Physics&lt;sup&gt;5&lt;/sup&gt;</td>
<td>3</td>
</tr>
<tr>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<sup>1</sup>Will accept separate anatomy & physiology courses (no lab required)  
<sup>2</sup>Chemistry must be for science majors & include lab component  
<sup>5</sup>We do not require a physics lab component  
<sup>6</sup>Liberal art electives accepted include humanities and social science courses. Examples of commonly accepted humanities include: art, business, ethics, creative writing, fine arts, languages, music, religion, and theatre. Examples of social sciences include anthropology, additional economic courses, child development, geography, history, management, political science, social work, sociology, and women's studies.
Benefits of the Early Assurance Program

Definite educational and career plan from high school graduation

Ability to complete prerequisites at any accredited college or university of your choice
  • Four-year college or technical college

Ability to use LIFE and Palmetto Fellows scholarships for graduate school
  • South Carolina residents only

Early access to career mentors, peer mentors, and shadowing opportunities

Formal press release announcing acceptance into MUSC College of Pharmacy Early Assurance Program
Early Assurance Program Timeline

1. Submit PharmDirect application (by June 1, 2021)
2. Applications reviewed by admissions office; candidates selected for campus/virtual visit
3. Conditional acceptance letters to the Early Assurance Program sent to qualifying candidates ($200 seat fee due to reserve spot)
4. Complete first year of required prerequisite courses (August 2021 – April 2022)
5. Attend PREP+ Program (Summer 2022)
Early Assurance Program Timeline

1. Submit PharmCAS & supplemental applications by October 1, 2022 (applications open July 2022)
2. Participate in Pharm.D. interview process (late September/early October 2022)
3. Conditional acceptance into Pharm.D. program (by early November 2022)
4. Submit remaining $285 seat fee within 2 weeks of acceptance
5. Submit official final transcripts to MUSC Enrollment (end of spring 2023 semester)
Education of a Pharmacist

Early assurance program (HS seniors) - 4+ years college

4 Years of Professional Graduate Education
(didactic, co-curricular, laboratory, simulation, experiential)

NAPLEX & MJPE

Practice

Post-graduate residency or fellowship training

Continuing Education

Board Certification (optional)
# First Academic Year

<table>
<thead>
<tr>
<th>Course/Fall semester I</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COP-601 Foundations of Pathophysiology &amp; Pharmacology I</td>
<td>2</td>
</tr>
<tr>
<td>COP-609 Foundations of Pharmaceutical Chemistry &amp; Pharmacogenomics I</td>
<td>3</td>
</tr>
<tr>
<td>COP-607 Dosage Forms and Drug Delivery Systems</td>
<td>4</td>
</tr>
<tr>
<td>COP-615 Pharmaceutical Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>COP-605 Introduction to Pharmacy Practice</td>
<td>2</td>
</tr>
<tr>
<td>COP-625 Pharmacy Calculations</td>
<td>1</td>
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<tr>
<td>COP-627 Medical Terminology</td>
<td>1</td>
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<tr>
<td>COP-620 Intro to Drug Information</td>
<td>1</td>
</tr>
<tr>
<td>COP-630 Compounding &amp; Applied Pharmaceutics Lab</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Semester Hours</strong></td>
<td><strong>18</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course /Spring semester I</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COP-603 Foundations of Pathophysiology &amp; Pharmacology II</td>
<td>4</td>
</tr>
<tr>
<td>COP-611 Foundations of Pharmaceutical Chemistry &amp; Pharmacogenomics II</td>
<td>3</td>
</tr>
<tr>
<td>COP-616 Pharmaceutical Biotechnology</td>
<td>2</td>
</tr>
<tr>
<td>COP-618 Self-Care &amp; Complementary Medicines</td>
<td>4</td>
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<tr>
<td>IP-710 Transforming Health Care</td>
<td>2</td>
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<tr>
<td>COP-640 Clinical Applications I</td>
<td>1</td>
</tr>
<tr>
<td>COP-632 Intro to Community Pharmacy Lab I</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Semester Hours</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>
Introductory Pharmacy Practice Experience

- Summer after first year
  - Four-week community pharmacy experience

- Summer after second year
  - Four-week health-systems pharmacy experience
Fourth Academic Year
Advanced Pharmacy Practice Experiences (APPEs)

• Nine calendar-month rotations

• Combination of required and elective rotations

• Rotations
  • 2 acute medicine
  • 1 ambulatory care
  • 1 community
  • 1 hospital
  • 4 electives

• International opportunities available in South Africa, Argentina, Australia, Bolivia, Ecuador, Ghana, India, Italy, Mexico, the Philippines, South Africa, Spain, Tanzania, Uganda, United Kingdom
Required APPEs

Acute/General Medicine
- Cardiology
- Critical Care & Subspecialties
- Emergency Medicine
- Geriatrics
- Gastroenterology
- General Medicine
- Infectious Disease
- Oncology
- Pediatrics & Subspecialties
- Psychiatry
- Pulmonary
- Transplant & Subspecialties

Hospital/Health System
- Hospital/Health System
- Home infusion
- Med Red/Transitions of Care

Community
- Clinic
- Compounding
- Chain
- Independent
- Discharge Counseling

Ambulatory Care
- Medicine
- Clinic
- Geriatrics
- HIV Clinic
- Indian Health Services
- Oncology
- Pain Management
- VA & Subspecialties
Elective APPEs

Academia
Acute/General Medicine
Administration
Ambulatory Care
Antimicrobial Stewardship
Community
Drug information
Hospital/Health System
Industry
Informatics
International
Investigative Drug Services
Long Term Care
Mail Order
Managed Care
Nuclear
Poison Control
Research
Veterinary
Admissions Application Criteria (Non-EPA Applicants)

- Cumulative GPA
- Key GPA
- PCAT (Optional)
- Interview (Multiple Mini)
- Letters of Reference
- Personal Statement (Writing Score)
- Diversity Statement
- Additional attributes
  - Extracurricular activities & leadership
  - Working/shadowing in a pharmacy or interviewing pharmacists
  - Bachelor’s degree or higher
  - Research experience
Admissions Information

- Class size: 80 students
- Rolling acceptance process
- Acceptance
  - Contingent on fulfilling prerequisites and background check
Admission Tips

Carefully review information posted on our prospective student website at [https://pharmacy.musc.edu/students-and-admissions/prospective-students](https://pharmacy.musc.edu/students-and-admissions/prospective-students)

Submit both PharmCAS and Supplemental Applications

• Submit early in the recruitment cycle

Consider taking the PCAT if your cumulative and/or key GPA is < 3.2

Practice interviewing prior to your interview

• Attend summer programs, which include multiple mini-interview exposure and practice
Admission Tips

Choose references who can speak to your academic abilities, work ethic, and character (no family, friends, pastors, etc.)

Treat your personal statement like a writing assignment from an English professor

Complete the diversity statement on the supplemental application

Be well-rounded – academics, co-curricular involvement, and pharmacy exposure

Utilize resources like AACP’s Future Pharmacy Students website and/or complete MUSC’s Pre-pharmacy Certificate Program to gain an understanding of the pharmacy profession
## Tuition & Scholarships

<table>
<thead>
<tr>
<th>2020-2021 Tuition</th>
<th></th>
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<tbody>
<tr>
<td>Resident</td>
<td>$26,826</td>
</tr>
<tr>
<td>Non-Resident</td>
<td>$40,056</td>
</tr>
</tbody>
</table>

- Dean’s Scholarship Program
- Out of State Tuition Waivers
- Endowed & Annual Scholarships

- Nearly $1 million in combined student financial support awarded for the 2020-2021 academic year
Points of Pride

- 98% of faculty rated as effective teachers by students
- 96% of graduating students believe they received a high-quality education
- 96% employed within 6 months of graduation
- 97% first time pass rate on the NAPLEX *(national average 88%)*
- 83% residency match rate *(national average 63%)*
- Nearly $1 million in financial support awarded for 2020-2021 academic year
Employment: 2020 Graduates

Post-graduate training includes residencies, fellowships & PhDs
Other includes consulting, informatics, managed care, medication adherence, nuclear, industry, & research
Summer Programs for High School Students
PharmDmentals

Summer program specifically designed to engage high school students interested in STEM or healthcare careers and provide a fundamental understanding of the pharmacy profession

Registration is open (no fee)
• https://redcap.musc.edu/surveys/?s=AJCKW7ETPN

Program date: July 30, 2021 (virtual)
AHEC Virtual Summer Careers Academy

Presented by South Carolina AHEC in collaboration with the MUSC’s Colleges of Dental Medicine, Health Professions, Medicine, Nursing, Pharmacy and the MUSC Library

A one-week summer program designed to help underrepresented minorities and disadvantaged students prepare for entry into health professions programs in South Carolina

Program dates: June 7-11, 2021

Now accepting applications!

• Application fee waived for 2021
• For more information, visit South Carolina AHEC Virtual Summer Careers Academy
Questions?

Dr. Cathy Worrall, Associate Dean for Admissions
(worrcl@musc.edu)

Jenny Bagg, Admissions Manager
(baggjs@musc.edu)