

BIOMEDICAL SCIENCES - PHARMACOLOGY - M.S.

College of Arts and Sciences
School of Biomedical Sciences
www.kent.edu/biomedical

About This Program

The Master of Science in Biomedical Sciences-Pharmacology program provides a comprehensive education in pharmacology and toxicology, preparing you for a wide range of careers in industry, government and academia. With access to cutting-edge research facilities, experienced faculty, and real-world opportunities, you'll gain the skills and knowledge needed to make an impact in this exciting field. Read more...

Contact Information

- Director: **John Johnson** | BMS@kent.edu | 330-672-3849
- Connect with an Admissions Counselor: U.S. Student | International Student

Program Delivery

- **Delivery:**
 - In person
- **Location:**
 - Kent Campus

For more information about graduate admissions, visit the graduate admission website. For more information on international admissions, visit the international admission website.

Admission Requirements

- Bachelor's degree from an accredited college or university
- Minimum 2.750 undergraduate GPA on a 4.000-point scale
- Official transcript(s)
- Curriculum vitae/résumé is required starting with the fall 2024 admission term
- Goal statement indicating the applicant's interests in pharmacology, their research experience and career aspirations
- Academic preparation adequate to complete graduate coursework (recommended courses in general chemistry, biochemistry and physiology)
- Three letters of recommendation
- English language proficiency - all international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning one of the following:
 - Minimum 600 TOEFL PBT score
 - Minimum 100 TOEFL IBT score
 - Minimum 85 MELAB score
 - Minimum 7.0 IELTS score
 - Minimum 68 PTE score
 - Minimum 120 Duolingo English score

Application Deadlines

- **Fall Semester**
 - Application deadline: December 1

Applications submitted after this deadline will be considered on a space-available basis.

Program Requirements

Major Requirements

| Code | Title | Credit Hours |
|------------------------------------|---|--------------|
| Major Requirements | | |
| ANTH 68637 or BSCI 60104 | BIOANTHROPOLOGICAL DATA ANALYSIS I BIOLOGICAL STATISTICS | 4-5 |
| BMS 60440 | CELLULAR AND MOLECULAR SIGNALING | 3 |
| BMS 60502 | MOLECULAR PHARMACOLOGY | 4 |
| BMS 60503 | PHARMACOLOGY JOURNAL REVIEW | 1 |
| BMS 61000 | RESPONSIBLE CONDUCT OF RESEARCH | 1 |
| BMS 61001 | INTRODUCTION TO BIOMEDICAL SCIENCES | 1 |
| Electives ¹ | | 11-12 |
| <i>Culminating Requirement</i> | | |
| BMS 60199 | THESIS I | 6 |
| Minimum Total Credit Hours: | | 32 |

¹ Elective courses and research must be approved by the student's thesis committee.

Graduation Requirements

- Minimum 17 credit hours of overall hours must be letter graded (required and elective courses).

Program Learning Outcomes

| Code | Title | Credit Hours |
|------------------------------------|---|--------------|
| Major Requirements | | |
| ANTH 68637 or BSCI 60104 | BIOANTHROPOLOGICAL DATA ANALYSIS I BIOLOGICAL STATISTICS | 4-5 |
| BMS 60440 | CELLULAR AND MOLECULAR SIGNALING | 3 |
| BMS 60502 | MOLECULAR PHARMACOLOGY | 4 |
| BMS 60503 | PHARMACOLOGY JOURNAL REVIEW | 1 |
| BMS 61000 | RESPONSIBLE CONDUCT OF RESEARCH | 1 |
| BMS 61001 | INTRODUCTION TO BIOMEDICAL SCIENCES | 1 |
| Electives ¹ | | 11-12 |
| <i>Culminating Requirement</i> | | |
| BMS 60199 | THESIS I | 6 |
| Minimum Total Credit Hours: | | 32 |

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Full Description

The Master of Science degree in Biomedical Sciences–Pharmacology provides substantial opportunity to conduct research in molecular targeting, drug design and drug delivery in developing new approaches to treat disease. The multidisciplinary program enrolls a select group of

graduate students interested in research-based careers in pharmacology, and provides a balance of classroom and laboratory work involving faculty at Kent State University and Northeast Ohio Medical University (NEOMED). Strong research foci exist in the areas of cardiovascular and metabolic diseases, neurodegenerative and blood brain barrier pharmacology. Interdisciplinary approaches to research and theoretical problems are strongly emphasized.

The M.S. degree in Biomedical Sciences–Pharmacology is offered in consortium with Cleveland Clinic and Northeast Ohio Medical University.