

MS in Medical Pharmacology and Physiology

Degree Requirements

The master's program is two years. The first year consists of required coursework, teaching assistantships and laboratory experiences. By the end of the first semester, students are expected to have selected a laboratory and mentor for either the thesis or non-thesis track and to form their thesis advisory committee. The second year consists of a continuation of coursework, teaching assistantships, ongoing thesis work and the defense of the thesis project. Students are required to present at the annual departmental student research update day each year that they are enrolled in the program. To satisfy requirements for the MS degree, a student must complete the professional plan of study with an average grade of B or better and pass an oral examination over an acceptable master's thesis. Candidates also must comply with other regulations governing master's degrees. MS degree students should normally complete their studies and thesis project within 2-3 years of admission to the degree program.

Required Coursework

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| MPP 8411 | Mammalian Pharmacology and Physiology | 5 |
| MPP 7422 | Medical Physiology | 4 |
| MPP 7424 | Medical Pharmacology | 4 |
| MPP 8420 | Skills in Biomedical Research | 2 |
| MPP 9422 | Medical Pharmacology and Physiology Journal Club (every semester) | 1 |
| MPP 8412 | Seminar in Medical Pharmacology and Physiology (every semester) | 1 |
| MPP 8415 | Responsible Conduct of Research thru Engagement, Enactment and Empowerment NIH and other Federal Age | 2 |
| STAT 7070 or STAT 7530 or STAT 7510 | Statistical Methods for Research Analysis of Variance Applied Statistical Models I | 3 |

Electives

Two upper-level MPP electives must be taken by non-thesis students. Suggestions include:

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| MPP 9426 | Transmembrane Signaling | 4 |
| MPP 9430 | Cardiovascular Physiology | 3 |
| MPP 9431 | Control of Energy Metabolism | 3 |
| MPP 9432 | Mammalian Membrane Physiology | 1-3 |
| MPP 9434 | Microvascular Physiology | 4 |
| MPP 9435 | Molecular Exercise Biology | 1-3 |
| MPP 9437 | Neural Cardiorespiratory Control | 3 |

Application Deadlines

Fall deadline: December 15

Admission Criteria

- Minimum GPA: 3.0 in the last 60 hours
- Bachelor's degree from an accredited college

- Background in biology and chemistry and an understanding of mathematics and physics
- Course work in biochemistry and physiology is highly recommended
- Previous lab or research experience preferred
- Minimum English proficiency scores, one of the following (International applicants only):
 - TOEFL Test of English as Foreign Language (internet based) = 80
 - IELTS International English Language Testing System (overall academic score) = 6.5
 - PTE Pearson Test of English = 59
 - C1A Cambridge C1Advanced = 180
 - Duolingo English Test = 105

Students are usually admitted to begin their program in the Fall semester.

Students with an appropriate educational background are encouraged to apply for entrance into the PhD program. A master's degree is not a prerequisite for admission to the doctoral program. Deficiencies in course work may be remedied during the first years of the graduate program.

An application submitted through the University of Missouri Graduate School. The application will include the following:

1. Copies or official copies of transcripts from all colleges and universities attended.
2. Three letters of recommendation - written by individuals with knowledge of the student's academic capability
3. Statement of Purpose - Provide in 400 words or less a brief description of research experience (abstract and paper citations preferred) and a statement of how the (M.S./Ph.D.) program will facilitate your career goals.
4. International students must submit copies or official copies of English proficiency test scores from either the TOEFL, IELTS, PTE, Cambridge C1 Advanced, or Duolingo examinations. MU's minimum test scores are:
 - TOEFL 80 (internet-based)
 - IELTS 6.5 (academic)
 - PTE 59
 - Cambridge C1 Advanced 180
 - Duolingo 105

Admission Contact Information

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