Master of Science in Microbiology

Molecular Biosciences Masters Programs

Molecular Biosciences is an interdisciplinary group of faculty, postdoctoral fellows and graduate students who perform cutting edge research across a wide range of areas (https://molecularbiosciences.ku.edu/research-areas/), including biochemistry, biophysics, structural biology, bioinformatics, cancer biology, genetics, genomics, immunology, microbiology, virology, neurobiology, molecular, cellular and developmental biology. Our researchers investigate fundamental biological and biomedical problems on all levels, from molecules to cells to organisms. Our research labs collaborate to solve complex questions using a range of approaches, and make use of the world-class core facilities at KU. The Department of Molecular Biosciences at the University of Kansas is an excellent environment for research and graduate training in biology.

The department offers Master of Science degrees in Biochemistry and Biophysics (http://molecularbiosciences.ku.edu/biochemistry-graduate-program/), in Molecular, Cellular, and Developmental Biology (MCDB (http://molecularbiosciences.ku.edu/mcdb-graduate-program/)), and in Microbiology (http://molecularbiosciences.ku.edu/microbiology-0/). General information about the department, our faculty and students, and alumni of our graduate programs can be found on our website (http://molecularbiosciences.ku.edu/). Detailed information about admission (https://molecularbiosciences.ku.edu/graduate-admissions/) to our graduate program and financial support (http://molecularbiosciences.ku.edu/stipend/) is also available.

Note that the various B.A. and B.S. undergraduate degree programs in biology are listed at the Biology Undergraduate Programs (http://catalog.ku.edu/liberal-arts-sciences/biology/) page.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (https://catalog.ku.edu/graduate-studies/) section of the online catalog.

Please consult the Departments & Programs (https://catalog.ku.edu/liberal-arts-sciences/) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

The Department of Molecular Biosciences (http://molecularbiosciences.ku.edu/) recognizes the importance of investing in the careers of future biomedical scientists. We welcome graduate students into our vibrant scientific community, where they have the opportunity to become outstanding researchers and prepare for an exciting future in science.

All students seeking a graduate degree must submit a formal application to the Molecular Biosciences graduate program. Full information on the application process, and a link to apply online can be found on our website (https://molecularbiosciences.ku.edu/graduate-admissions/). Application materials for the Molecular Biosciences graduate program include:

1. An application form
2. 1 official copy of all academic transcripts (international students must also provide a translated copy);
3. A Curriculum Vitae or résumé (1 to 2 pages);
4. 3 letters of recommendation from qualified individuals using the Graduate Letter of Recommendation form;
5. A Statement of Research Interests and Goals. A strong statement will include: (a) A description of previous research experiences, if applicable, discussing how these have prepared you for graduate school both professionally and personally, (b) A discussion of your broad research interests, and (c) A description of your future career goals, discussing how a PhD from our department will help further these goals. (1-2 pages)
6. Application Fee
7. Non-native speakers of English must meet the English proficiency requirements for employment as a GTA/GRA: minimum TOEFL (iBT) SPEAKING score of 22, AND all other parts scores at least 20; or IELTS SPEAKING score of 8, with no other part score below 5.5. Scores must be less than 2 years old from the time of initial enrollment.

   More information can be found here: https://gradapply.ku.edu/english-requirements (https://gradapply.ku.edu/english-requirements/)

GRE scores are not required for your application. You may submit your official GRE scores if you feel it will help the admissions committee better understand your academic capabilities. But electing not to submit scores will not impact your chance of admission.

Complete applications received by **December 1st** are reviewed by the Molecular Biosciences graduate admissions committee. Admission into our program is competitive, and we receive a large number of applications each year. Students will be informed of admission decisions early in the new year, admissions decisions are finalized by April 15, and newly admitted students matriculate in August.

Our holistic evaluation is based on several criteria, including grades, the strength of recommendation letters, previous research experience, and the fit of your career goals with our educational program.

The department is committed to enhancing diversity (https://molecularbiosciences.ku.edu/dei-statement/) in the life sciences, encourage participation from individuals with diverse life experiences, and strive to foster an inclusive research and training environment for all our faculty, students, and staff.

All supporting documentation should be uploaded online when you apply. If this is not possible, please send documentation to:

Cassandra Jim
Graduate Program Coordinator
The University of Kansas
Department of Molecular Biosciences
Haworth Hall
1200 Sunnyside Ave., Room 2034
Lawrence, KS 66045

Microbiology

General Requirements for All M.S. Students

Refer to each discipline for specific course requirements. General requirements include

1. A minimum of 30 hours of graduate credit;
2. A minimum of 1 laboratory rotation during the first semester of graduate study;
3. Enrollment every semester in BIOL 701 Topics in Molecular Biosciences Seminar;
4. Completion of the following courses: BIOL 807 Graduate Molecular Biosciences and BIOL 817 Rigor, Reproducibility, and Responsible Conduct in Research.
5. A graduate committee established by the beginning of the spring semester of the first year;
6. A minimum of 1 annual graduate committee meeting until completion of the degree.

The following thesis options are available:

1. Write a thesis resulting from original research on a laboratory problem.
2. Publish a research paper in a national, refereed journal. Acceptance of the paper for publication constitutes publication for conferral of the degree.
3. Write a library thesis on a topic approved by the student's graduate committee.

Specific M.S. Requirements:

Code	Title	Hours
Select at least three graduate courses from the following:		6
BIOL 811	Advanced Molecular and Cellular Immunology	
BIOL 812	Mechanisms of Host-Parasite Relationships	
BIOL 814	Advanced Molecular Virology	
BIOL 815	Advanced Molecular Genetics	
Plus electives to satisfy the 30-hour course requirement. No more than 6 of these hours can be below the 700 level. Electives are determined in consultation with the graduate advisor and graduate committee.		