Students electing microbiology as a major for an advanced degree should have had a total of at least 15 credit hours of physical or biological sciences, including general biology or microbiology, chemistry through organic chemistry and biochemistry, and mathematics through calculus. Admission requirements include: a bachelor's degree with course work in biological sciences, chemistry, and physics; Graduate Record Examination (GRE) scores. In addition to the above requirements, international students must attain a minimum Test of English as a Foreign Language (TOEFL) score of 96 on the internet-based test (iBT), with a score of 24 on the speaking section, is also accepted. The department does not admit students into the M.S. program.

**Graduate Teaching Experience**
Experience in teaching is considered to be a vital part of the graduate program and is required as part of the academic work of all Ph.D. degree candidates. For the Department of Microbiology, a minimum of two semesters of teaching experience is a degree requirement.

**Faculty Research Interests**
Major areas of research interest are gene expression and regulation in prokaryotes and eukaryotes; viral function and development including virus-host cell interactions; membrane biogenesis, including protein insertion; Lipid and polysaccharide synthesis in bacteria and yeast; cell wall biogenesis; bacterial pathogenesis and bacteria-host interactions; immunology; DNA replication, recombination, and repair; anaerobic microbiology; the biochemistry and physiology of methane formation; mechanisms of oxygen toxicity; bacterial and archaeal phylogeny, genomics, and evolution; and archaea. For further details, please consult the Department of Microbiology's website (www.mcb.illinois.edu/departments/microbiology/index.html).
books and on-line scientific journals. The Writers Workshop offers free, personal writing assistance for class assignments, scientific manuscripts, and theses. Graduate students also have access to laboratory computers, which are connected via the network maintained by the Office of Information Technology. Please visit the School of Molecular and Cellular Biology (http://www.mcb.uiuc.edu) to learn about these and other resources available to graduate students.

Financial Aid
All students admitted into the Ph.D. program receive financial support throughout their graduate training. Incoming graduate students are supported by the School of Molecular and Cellular Biology. Several University Fellowships are awarded to outstanding applicants on a competitive basis. Financial support is usually in the form of a research assistantship, teaching assistantship, and/or fellowship. In addition to this stipend, we offer a tuition and service fee waiver. A health insurance fee and other miscellaneous fees, must be paid by the student.

Master of Science in Microbiology
Students are not admitted to the M.S. program; these requirements are completed as part of the Ph.D. program.

Thesis Option
Coursework (not including MICR 590) 8
Research/Project Hours (4 min applied toward degree) 4
MICR 599 Thesis Research (0 min applied toward degree) 0
Total Hours 32

Other Requirements 1
Other requirements may overlap
Minimum Hours Required Within the Unit: 8 (500 level)
Minimum Number of 500-level Hours Required Overall in Program: 12
Completion of one of the following and approval by the research advisor and head of the department:
a research thesis; submission of a manuscript with the candidate as first author and to which the candidate has made the major contribution; the successful passing of the departmental preliminary exam.
Minimum GPA: 3.0

1 For specific information, visit our Web site at mcb.illinois.edu/departments/microbiology/gradcurrent.html and refer to the department's Graduate Student Handbook and the Graduate College Handbook (http://www.grad.illinois.edu/gradhandbook).

Non-Thesis Option
Coursework (not including MICR 590) 8
Research/Project Hours (4 min applied toward degree) 4
Total Hours 32

Other Requirements 1
Other requirements may overlap
Minimum Hours Required Within the Unit: 8 (500 level)
Minimum Number of 500-level Hours Required Overall in Program: 12
Completion of one of the following and approval by the research advisor and head of the department:
a research thesis; submission of a manuscript with the candidate as first author and to which the candidate has made the major contribution; the successful passing of the departmental preliminary exam.
Minimum GPA: 3.0

1 For specific information, visit our Web site at mcb.illinois.edu/departments/microbiology/gradcurrent.html and refer to the department’s Graduate Student Handbook and the Graduate College Handbook (http://www.grad.illinois.edu/gradhandbook).

Doctor of Philosophy in Microbiology
The requirements for receiving a Ph.D. from the Department of Microbiology include successful completion of course work, teaching, publication of 2 first-author manuscripts in peer-reviewed journals, passing preliminary/qualifying examinations, and writing and depositing of a research thesis.

Master's level requirements 32
Core coursework: 19
  MCB 501 Advanced Biochemistry
  MCB 502 Advanced Molecular Genetics
  MCB 580 Res Ethics & Responsibilities
  MCB 581 Laboratory Rotation I
  MCB 582 Laboratory Rotation II
  MCB 583 Laboratory Rotation III
  MCB 585 Current Topics in Microbiology
Registration in MICR 595 every semester of enrollment (9 min) 9
400- or 500-level discussion-based courses (3 min) 3
400- or 500-level lecture-based courses (12 min) 12
Research/Project Hours (min/max applied toward degree): before prelim
MICR 599 Thesis Research (min/max applied toward degree) after prelim
Total Hours 96

Other Requirements 1
Other requirements may overlap
At least two first author publications in which the candidate has made the major scientific research contribution. At the time of graduation at least one of these manuscripts must be accepted to a peer-reviewed journal and a second paper must, at minimum, be ready for submission.

Information listed in this catalog is current as of 04/2016
<table>
<thead>
<tr>
<th>Requirement</th>
<th>Requirement Details</th>
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<tbody>
<tr>
<td>Masters Degree Required for Admission to PhD?</td>
<td>No, but Masters level requirements must be met.</td>
</tr>
<tr>
<td>Qualifying Exam Required</td>
<td>No</td>
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<tr>
<td>Preliminary Exam Required</td>
<td>Yes</td>
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<tr>
<td>Final Exam/Dissertation Defense Required</td>
<td>Yes</td>
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<tr>
<td>Dissertation Deposit Required</td>
<td>Yes</td>
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<tr>
<td>Minimum GPA:</td>
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</tbody>
</table>

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