Microbiology

Department Information

- **Department Head:**
  John McEvoy, Ph.D.

- **Graduate Coordinator:**
  Glenn Dorsam, Ph.D.

- **Department Location:**
  Van Es Hall

- **Department Phone:**
  (701) 231-7512

- **Department Web Site:**
  www.ndsu.edu/microbiology/ (http://www.ndsu.edu/microbiology/)

- **Application Deadline:**
  December 15 for fall

- **Credential Offered:**
  Ph.D., M.S.

- **Test Requirement:**
  GRE

- **English Proficiency Requirements:**
  TOEFL iBT 71, IELTS 6

M.S. in Microbiology

The master's program requires 24 months of full-time study, completing a minimum of 30 semester credits with an overall GPA of 3.0 or better.

Students are required to select from a list of core courses for eight to nine didactic credits toward their degree.

**Plan A (Thesis-based) MS:** Of the 30 credits, 16 credits must be in didactic graduate courses. Plan A (Thesis-based) MS students can apply 6 to 10 credits towards MICR 798 research. This degree in microbiology requires a research-based thesis, a public seminar of the thesis research, and a final oral defense of the thesis. The supervisory committee administers the oral thesis examination.

**Plan B (Paper-based) MS:** Of the 30 credits, 21 credits must be in didactic graduate courses. Plan B (Paper-based) MS students can apply 2 to 4 credits towards MICR 797 paper-based research. This degree in microbiology requires the presentation of a thoroughly researched paper. The supervisory committee administers a oral examination at the culmination of the student's progress.

Students with inadequate undergraduate training in microbiology will be required to complete undergraduate courses in microbiology in addition to the required minimum 30 semester credits.

Examinations

**Final Thesis Exam (Plan A, M.S. only):** The final examination will be an oral defense of the student’s research results. The students research advisory (thesis) committee will administer the exam after a public presentation of the work.

**Paper-based Exam (Plan B, M.S. only):** M.S. students in this option will produce an in-depth research paper on a specific topic in Microbiology. The paper will be reviewed by the student’s graduate committee and approved when completed.

Ph.D. in Microbiology

The Ph.D. program is based on defined training outcomes. Degree requirements are in agreement with NDSU Graduate School requirements. The student and major adviser will prepare a plan of study by the end of the first year in residence. The Graduate School requires the plan of study for the Ph.D. degree to include no less than 90 semester graduate credits (60 credits for students matriculating with a master’s degree). An overall GPA of 3.0 or higher must be maintained. Please refer to the department website for more information on requirements for this program.

Examinations

**Qualifying Exam:** Two preliminary examinations must be completed successfully before advancement to candidacy for the doctoral degree. The first examines fundamental areas of knowledge that will be essential for success as a doctoral candidate. The second requires the student to write a research proposal targeted at a program administered by NIH, NSF, or NIFA and defend the proposal in an oral examination. After successful completion of the comprehensive written and oral preliminary examinations, the student will be formally admitted to candidacy for the Doctor of Philosophy degree.
Final Exam: The final examination will be an oral defense of the student's research results. The students research advisory committee will administer the exam after a public presentation of the work.