GRADUATE STUDIES
MASTER OF SCIENCE IN BIOLOGY

BIOLOGY

PFW.EDU/GRADUATE
The Department of Biology at Purdue University Fort Wayne offers a Master of Science degree with coursework and research opportunities covering the wide breadth of the biological sciences. Faculty within the department teach courses and conduct research in areas of population and community biology, organismal biology and genetics, cellular, and molecular biology.

We offer two pathways to completion of an M.S. degree in Biology: thesis and non-thesis. The thesis option M.S. is a research degree that requires completion of a thesis as an original contribution to the field. The non-thesis option is coursework intensive. In both, students develop and design their own plan of study in cooperation with their faculty advisor and committee.

Our graduate students and faculty conduct research in both the lab and field, as well as at local sites and around the world. Many of our graduate students receive financial support through teaching or research assistantships, both of which are competitively awarded to students. Graduates from our program follow diverse career paths from employment in private and governmental jobs to acceptance into medical schools and Ph.D. programs.

Interested applicants should contact individual faculty with similar interests to discuss research opportunities. Regardless of what aspect of biology excites you, there is a faculty member here who is equally excited.

Jordan M. Marshall, Ph.D
Associate Professor
Biology Graduate Program Director
marshallj@pfw.edu
BENEFITS

ACHIEVE YOUR ACADEMIC AND PROFESSIONAL GOALS

Our graduate program offers a Master of Science degree in Biology. The research interests of our faculty cover a wide range of specific disciplines. Students may take graduate courses and perform their own research projects in a variety of areas, including developmental biology, behavioral biology, ecology, forestry, genetics, immunology, microbiology, physiology and toxicology. Both thesis and nonthesis options are available in all of these areas. Graduate students enrolled in any thesis option are eligible to receive teaching assistantships, which are awarded on a competitive basis.

Our program is designed to prepare an individual to work towards one or more of the following goals:

- Become a research scientist in academia or industry
- Obtain advanced training in a professional or graduate school

TEACHING ASSISTANTSHIPS

A limited number of teaching assistantships (TAs) are available from the Department of Biology. These are awarded on a competitive basis, thus acceptance into the program does not guarantee receipt of a TA position. Research assistantships (RAs) are also available as a result of external funding for faculty. The RA positions are awarded to accepted graduate students by individual faculty members rather than the department. Application deadlines differ for students interested in attaining these positions:

- Fall admission: February 15
- Spring admission: August 15

THE PURDUE FORT WAYNE DIFFERENCE

Stand out with a graduate degree that enhances your qualifications through:

- Small class sizes
- Personal attention from dedicated faculty
- Course offerings designed for working adults
- Internationally recognized degree at a fraction of the cost

"During my last year of undergrad, Dr. Nachappa was talking to her Entomology class about getting involved in research and how it could be helpful in the future. I attended a meeting where different biology professors were talking about the research through their labs. Afterward, I emailed Dr. Nachappa letting her know that I was interested in working in the lab. I started working in her lab the summer and that fall she convinced me to apply for grad school!"

Geral’n McGee

"I appreciate that my degree will be from Purdue. We have such a strong biology department and talented professors. Students really connect with their advisors and they can provide guidance with our research. They get to know you and provide valuable input on your research process. The biology department has done some top notch research, it’s impressive."

Lauren Hall
The plan of study for each student is variable and is decided on by the student and their committee in order to ensure students gain the necessary skills and tools to advance their research and professional goals. There are no required courses. Students may pursue a non-thesis or a thesis option.

### ORGANISIMAL BIOLOGY
- BIOL 50100 Field Botany
- BIOL 50500 Biology of Invertebrate Animals
- BIOL 51810 Biomedicine
- BIOL 52000 Contemporary Parasitology
- BIOL 52710 Comparative Biomechanics
- BIOL 53300 Medical Microbiology
- BIOL 53700 Immunobiology
- BIOL 54400 Principles of Virology
- BIOL 55600 Physiology I
- BIOL 55900 Endocrinology
- BIOL 56500 Immunobiology Laboratory
- BIOL 56600 Developmental Biology
- BIOL 56700 Laboratory in Developmental Biology
- BIOL 57710 Emerging Infectious Diseases
- BIOL 57810 Biology of Disease Vectors
- BIOL 57900 Fate of Chemicals in the Environment
- BIOL 58000 Evolution
- BIOL 58600 Topics in Behavior and Ecology
- BIOL 59200 The Evolution of Behavior
- BIOL 59500 Special Assignments
- FNR 50500 Molecular Ecology and Evolution
- FNR 52300 Aquaculture

### POPULATION AND COMMUNITY BIOLOGY
- BIOL 50100 Field Botany
- BIOL 50200 Conservation Biology
- BIOL 50500 Biology of Invertebrate Animals
- BIOL 52000 Contemporary Parasitology
- BIOL 54110 Invasion Biology
- BIOL 54300 Population Ecology
- BIOL 57710 Emerging Infectious Diseases
- BIOL 57810 Biology of Disease Vectors
- BIOL 58000 Evolution
- BIOL 58200 Ecotoxicology
- BIOL 58600 Topics in Behavior and Ecology
- BIOL 59200 The Evolution of Behavior
- BIOL 595 Special Assignments
- BIOL 59800 Biology of Fish
- FNR 50500 Molecular Ecology and Evolution
GENETICS, CELLULAR, AND MOLECULAR BIOLOGY

BIOL 50600 Human Molecular Genetics
BIOL 50900 Molecular Biology and Applications
BIOL 51500 Molecular Genetics
BIOL 51600 Molecular Biology of Cancer
BIOL 52410 Bacterial Diversity and Systematics
BIOL 53300 Medical Microbiology
BIOL 53700 Immunobiology
BIOL 54000 Biotechnology
BIOL 54300 Population Ecology
BIOL 54400 Principles of Virology
BIOL 55110 Proteins: Structure And Function
BIOL 55600 Physiology I
BIOL 55900 Endocrinology
BIOL 56500 Immunobiology Laboratory
BOL 56600 Developmental Biology
BIOL 56700 Laboratory in Developmental Biology
BIOL 57710 Emerging Infectious Diseases
BIOL 57810 Biology of Disease Vectors
BIOL 58000 Evolution
BIOL 58400 Molecular Biology and Applications Laboratory
BIOL 59500 Special Assignments
FNR 50500 Molecular Ecology and Evolution

NON-THESIS OPTION

The non-thesis option is for students who want to complete the program without completing a written thesis. At least 30 credit hours of course work are required. Of these, 15 credit hours must be at the 500 level within the Department of Biology. The remaining 15 hours can be fulfilled by some combination of the following:
- Additional BIOL courses at the 500 level
- Up to 9 credit hours of BIOL 59500 (Special Assignments)
- Up to 6 credit hours of undergraduate courses at the 300 or 400 level taken from other departments (students must earn a grade of no lower than B); or up to 15 credits of 500-level courses in other departments. This option includes a final exam in the last semester, prepared by the student’s committee, focused on the student’s area of concentration.

THESES OPTION

The thesis option is for students who are interested in preparing a written thesis for their area of research. Students will submit a research proposal to their thesis committee prior to the beginning of their third semester in the program. Students selecting the thesis option must obtain a minimum of 30 credit hours in formal course work and research credit combined. A minimum of 18 credit hours of formal course work approved by the student’s committee is required. The remaining 12 credits can be:
- Exclusively BIOL 69800 Research M.S. Thesis, or;
- A combination of at least 9 credits in BIOL 69800 and up to 3 credits in BIOL 59500 Special Assignments
BIOL 59500 credit cannot be included in the 18 credit hours of formal course work.
**APPLICATION DEADLINES**

- **Feb 15**: U.S. Citizen: fall admission seeking TA position
  International: regular fall admission
- **Apr 15**: U.S. Citizen: regular fall admission
- **Aug 15**: U.S. Citizen: spring admission seeking TA position
  International: regular spring admission
- **Oct 15**: U.S. Citizen: regular spring admission

**STEPS TO APPLY**

1. **Application**: To begin your application create an account through the portal at pfw.edu/grad-apply. Applicants can make and save changes before submitting by logging in with the username and password used to create the account.

2. **Application Fee**: The Graduate School application fee is $60 (U.S. dollars) for domestic applicants and $75 (U.S. dollars) for international applicants. Your application will not be processed until your nonrefundable application fee has been paid.

3. **Transcripts**: Through the application portal, you must upload transcript(s) and/or academic document(s) for every institution of higher education you attended regardless of whether or not a degree was received. If a degree was received then it must be printed on the transcripts. If no degree conferral is printed on the transcripts then a copy of the original diploma (degree certificate) is needed. If the documents are not in English, you must upload an English translation certified by the college or university that issued it. For those who have completed degrees in the People's Republic of China, you will also be required to submit the Graduation Certificate.

4. **Statement of Purpose (Essay)**: The statement of purpose should be 300-500 words concerning your purpose for undertaking or continuing graduate study, your reasons for wanting to study at Purdue Fort Wayne, and your research interests, professional plans, and career goals. You also may explain any special circumstances applicable to your background and elaborate on your scholarly publications, awards, achievements, abilities, and/or professional history.

5. **Recommendations**: Submit names of three individuals who are qualified to evaluate your academic or on-the-job performance who can attest to your ability to pursue a graduate degree. In the online application to the Purdue Graduate School, once you click "Send to Recommender," each individual will receive an email with instructions for submitting their recommendation online. Once submitted, the graduate program to which you applied will have access to view your recommendation(s).

6. **Official Standardized Exam Scores**: Suitable exams include one of the following: general Graduate Record Exam (GRE), Medical College Admission Test (MCAT), or Dental Admission Test (DAT).
   - **Graduate Record Exam (GRE)**: For both Quantitative Analysis and Verbal Reasoning, applicants must score at or above the 25th percentile on the general GRE. Additionally, applicants must achieve a raw score at or above 2.5 on the Analytical Writing section of the general GRE.
   - **Medical College Admission Test (MCAT)**: Applicants must achieve a total score at or above the 20th percentile on the MCAT.
   - **Dental Admission Test (DAT)**: Applicants must achieve a total score at or above the 20th percentile on the DAT.

**OFFICIAL TRANSCRIPTS**

You must provide official transcripts and/or academic records at the request of the graduate program or if you are admitted and choose to enroll. An official transcript bears the original signature of the registrar and/or the original seal of the issuing institution. An unofficial transcript printed from your current/previous institution(s) student system is not an acceptable document. Official documents should be submitted to:

Purdue University Fort Wayne
Office of Graduate Studies
2101 E Coliseum Blvd., KT 140
Fort Wayne, IN 46805

Domestic transcripts must be mailed directly from a Registrar’s office to the Office of Graduate Admissions. (You can choose to send the transcripts yourself, but the transcripts must be in an envelope sealed by the Registrar).
All international applicants must also submit the following items to be considered for admission:

1. English Proficiency Scores
   TOEFL for Non-Native English Speakers
   Minimum Paper-Delivered Test - no overall score reported with the following minimum section requirements:
   - Reading: 19
   - Writing: 18
   - Listening: 14
   Minimum Internet-Based Test (IBT) Overall Score: 80 with the following minimum section requirements:
   - Reading: 19
   - Speaking: 18
   - Listening: 14
   - Writing: 18

   IELTS (Academic Module): An alternative to the TOEFL, overall band score of 6.5 or higher with minimum section requirements:
   - Reading: 6.5
   - Listening: 6.0
   - Speaking: 6.0
   - Writing: 5.5

   ELS - Certificate Level 112

   Routine waivers of an English Proficiency exam are granted for applicants who have been conferred a baccalaureate or graduate or professional degree within the last 24 months from an institution where English is the primary language of instruction in a country/location where English is the native language.

2. Transcript Evaluation
   International Applicants must submit original and certified copies for every institution of higher education attended. All documents must be submitted in both English and in the original language. All candidates must hold a four-year undergraduate degree or equivalent in any discipline from a recognized institution.

3. Proof of Financial Support
   An official letter and financial statement from a bank, company, or government sponsor indicating the availability of sufficient funds to pay for your tuition and living expenses is required.

4. Visa and/or Permanent Resident Card (PRC)

INTERNATIONAL TRANSCRIPTS SHOULD BE MAILED DIRECTLY TO THE OFFICE OF INTERNATIONAL EDUCATION

Purdue University Fort Wayne
International Education
2101 E. Coliseum Blvd, Walb Union 145
Fort Wayne, IN 46805-1499, USA
Phone: +1-260-481-6034
Email: intladmissions@pfw.edu