



IUP Graduate Handbook

M.S. in Biology
Department of Biology

Handbook Updated 2020-2021

M.S. in Biology

Department of Biology

975 Oakland Ave

114 Weyandt Hall

Indiana PA 15705

724-357-2352 (office)

724-357-5524 (fax)

Program Website: <https://www.iup.edu/biology/>

TABLE OF CONTENTS

Introduction..... 1
 IUP’s Civility Statement 1
 Affirmative Action 1
 Title IX Reporting Requirement 1
 Student Conduct and Student Rights 1
 Department of Biology..... 2
 Mission Statement and Program Objectives 2
 Faculty and Staff..... 2

Admission 3
Financial Assistance..... 4
Academic Advisement..... 4
Campus Resources & Student Support 4
IUP Email 5
Graduate Student Assembly..... 5

Programs and Degrees 5
 Master’s 5
Evaluation of Students..... 6
 Competency Exam 6
 Program Level Examination Appeals..... 7
 Reexamination Policy [*in departments which require*] 8

Degree Completion 8

University Policies and Procedures (See Graduate Catalog www.iup.edu/gradcatalog) 14

Research 15

Resources 16

Grants and Awards..... 16

Signature Page 19

INTRODUCTION

Welcome to the M.S. in Biology program! Expanding your career opportunities is an inherent part of our graduate program. Many destinations await you in medicine, private industry, government, and higher education. Your M.S. experience may provide a ladder to doctoral studies. Our 19 full-time biology graduate research faculty bring a breadth of scholarly knowledge and practical experience. Deeply committed to educating their students, these professors conduct a wide variety of research and service programs associated with the department.

IUP's Civility Statement

As a university of different peoples and perspectives, IUP aspires to promote the growth of all people in their academic, professional, social, and personal lives. Students, faculty, and staff join together to create a community where people exchange ideas, listen to one another with consideration and respect, and are committed to fostering civility through university structures, policies, and procedures. We, as members of the university, strive to achieve the following individual commitments:

To strengthen the university for academic success, I will act honestly, take responsibility for my behavior and continuous learning, and respect the freedom of others to express their views.

To foster an environment for personal growth, I will honor and take care of my body, mind, and character. I will be helpful to others and respect their rights. I will discourage intolerance, hatred, and injustice, and promote constructive resolution of conflict.

To contribute to the future, I will strive for the betterment of the community; myself, my university, the nation, and the world.

Affirmative Action

www.iup.edu/gradcatalog

Title IX Reporting Requirement

www.iup.edu/gradcatalog

Student Conduct and Student Rights

www.iup.edu/studentconduct/policies/
www.iup.edu/gradcatalog

Department of Biology

The Department of Biology offers a M.S. in Biology that is intended both for the student who wishes to pursue further graduate work leading to the PhD degree and for the student who desires the M.S. degree as a means to seek a career as a biologist in a number of different professions. The M.S. in Biology has two alternatives, the thesis and non-thesis options. The thesis option is research oriented, with an emphasis on a comprehensive research project under the supervision of a thesis advisory committee. The non-thesis option also requires a research component that is under the direction of a faculty member. Both alternatives are intended to provide the student with a well-rounded biology background, as well as furnish the research skills required for postgraduate positions.

Mission Statement and Program Objectives

From biomolecules to biomes, this is the place to study biology. Our department has the academic size and diversity to offer opportunities found at larger research institutions, yet maintain the personal and intimate learning community found at smaller liberal arts colleges. The M.S. in Biology allows you to prepare for employment in the public or private sector, continuing on to a doctoral program, or acceptance to a medical, dental, or veterinary school. Your graduate degree will train you for an academic career or jobs that are expanding in the workforce.

Faculty and Staff

With 19 graduate research faculty, students have the opportunity to work with a diverse group of advisors and committee members. Below is a list of current graduate research faculty with contact information and profiles of faculty research interests available at:

<https://www.iup.edu/biology/faculty/>

N. Bharathan (Ph.D., University of Maine); Professor and Department Chair

Joseph Duchamp (Ph.D., Purdue University); Professor and Department Assistant Chair

Seema Bharathan (Ph.D., University of Maine); Associate Professor

Shundong Bi (Ph.D., Howard University); Professor

Cuong Diep (Ph.D., Penn State University); Associate Professor and Graduate Coordinator

Sarah Emel (Ph.D., Washington State University); Assistant Professor

David Janetski (Ph.D., University of Notre Dame); Associate Professor

Megan Knoch (Ph.D., Kent State University); Associate Professor

Jeffrey Larkin (Ph.D., University of Kentucky); Professor

Robert Major (Ph.D., Rider University); Associate Professor

Eric Morschhauser (Ph.D., University of Pennsylvania); Assistant Professor

Paul Nealen (Ph.D., University of Pennsylvania); Professor

Christina Ruby (Ph.D., Kent State University); Associate Professor

Thomas Simmons (Ph.D., Saint John's University); Professor

Josiah Townsend (Ph.D., University of Florida); Associate Professor

Holly Travis (D.Ed., Indiana University of Pennsylvania); Professor

Michael Tyree (Ph.D., Virginia Tech University); Associate Professor

Daniel Widzowski (Ph.D., University of Rochester); Associate Professor

Ellen Yerger (Ph.D., University of Illinois Urbana-Champaign); Associate Professor

Admission

Students must possess a bachelor's degree (BA or BS) from an accredited college or university. The degree should include a major in biology or a branch of biology, one year of inorganic chemistry, one semester of organic chemistry, and one semester of calculus or statistics. Applicants with undergraduate deficiencies may be required to register for appropriate courses. The applicant's grade point average must be at least 2.6, or submit a Miller Analogies Test score greater than 47. Keep in mind that these are the minimum scores to be eligible to apply. The Graduate Records Exam (GRE) is not required for admission, but scores may be considered by the graduate committee during the review of applications.

International applicants must take either the Test of English as a Foreign Language (TOEFL) and receive a score greater than 500 on the paper-based test (PBT), 173 on the computer-based test (CBT), or 61 on the internet-based test (iBT), or take the International English Language Testing System (IELTS) exam and score greater than 5.0. Keep in mind that these are the minimum scores to be eligible to apply, and students are expected to have a strong proficiency in both spoken and written English.

The deadline to submit your application with full consideration for the upcoming academic year is 1 March. Applications received after this date may still be considered for the upcoming academic year on a case-by-case basis, or may be deferred to the next academic year. Applications for admission during the Spring semester will be reviewed on a case-by-case basis.

For more information on Graduate Admissions: www.iup.edu/admissions/graduate/

For more information on Admission Requirements for International Graduate Students: <https://www.iup.edu/admissions/international/graduate-student-requirements/>

Financial Assistance

Graduate Assistantships

A limited number of graduate assistantships (GAs) are selectively awarded to highly qualified graduate students, often on the basis of academic excellence and having selected a thesis mentor. Full time students can be eligible for 20-hour or 10-hour per week GAs. For more information, visit: <http://www.iup.edu/admissions/graduate/financialaid/assistantships-and-scholarships/>

For more information about loans, the Federal Work Study program, and other financial aid, visit the **Office of Financial Aid** at www.iup.edu/financialaid/

Academic Advisement

The Graduate Coordinator serves as the academic advisor for all Biology graduate students (not to be confused with the thesis or research advisor, who supervises the student's research and chairs the supervisory committee of thesis students). Each graduate student will meet with the graduate coordinator once per semester to discuss progress towards their degree, prepare for registration for the upcoming semester, and receive their ALT PIN number for registration.

During the first four weeks of each semester, continuing students will complete the IUP Biology Graduate Student Semester Evaluation Form and meet with their supervisory committee chair to discuss their progress to date and their objectives for the upcoming semester. Once the advisor has completed and signed their Semester Evaluation Form, they submit it to the Graduate Coordinator. Students that have not completed their semester evaluation may have a hold put on their registration until it is submitted.

Campus Resources & Student Support

The School of Graduate Studies and Research: www.iup.edu/graduatestudies/

Graduate Catalog: www.iup.edu/gradcatalog

Office of the Bursar: www.iup.edu/bursar/

Office of the Registrar: www.iup.edu/registrar/

Disability Support Services: www.iup.edu/disabilitysupport/

Office of Social Equity: www.iup.edu/social-equity/

IUP Campus Library www.iup.edu/library/

MyIUP: www.iup.edu/myiup/

IT Support Center: www.iup.edu/itsupportcenter/

Veterans and Service Members: www.iup.edu/veterans/resource-center/

IUP Writing Center: www.iup.edu/writingcenter/

IUP Career and Professional Development Center: www.iup.edu/career/

IUP Parking Services and Visitor Center <http://www.iup.edu/parking/>

University Police <http://www.iup.edu/police/> | 724-357-2141

Crisis Intervention 24/7 Hotline: 1-877-333-2470

Student Registration: www.iup.edu/registrar/students/registration/

IUP Email

IUP offers an email account to all active students. **Your IUP email address is the primary means by which the university will contact you with official information and you should use for all IUP official communications. It is your responsibility to check your IUP email regularly.** Visit www.iup.edu/itsupportcenter/howTo.aspx?id=23401 to learn more about setting up this account. For more information regarding University policy on email communication, view the Graduate Catalog: www.iup.edu/gradcatalog

Graduate Student Assembly

The Graduate Student Assembly (GSA) represents the graduate student body's interests at IUP and within the Indiana community. The GSA makes recommendations related University-wide and graduate-specific policies and in areas of concern in the cultural, intellectual, and social life of the part- and full-time graduate student. Visit www.iup.edu/graduatestudies/gsa for more information.

Programs and Degrees

M.S. in Biology Program

The Department of Biology offers a Master of Science (M.S.) degree that serves both the student who plans to pursue further graduate work leading to a Ph.D. degree and the student who plans to seek a career following the completion of their M.S. degree.

The M.S. in Biology program has two alternatives, the thesis and non-thesis option. The thesis option is research oriented, requiring a comprehensive research project under the supervision of a thesis advisory committee and culminating in a publicly defended thesis. The non-thesis option requires a research component that is supervised by a single faculty member and is oriented towards students pursuing professional training and experience. Both options are intended to provide the student with a well-rounded biology background and furnish the desired research skills for postgraduate positions.

What Can You Expect from Faculty?

The faculty members are here to help you, especially your Graduate Coordinator. You can expect assistance in making timely progress towards your degree. Your Graduate Coordinator and thesis advisor will communicate regularly with you and will provide intellectual guidance and support for your scholarly efforts. Your thesis advisor will also facilitate participation in scholarly and professional experiences that will add depth and breadth to your skills.

Your Graduate Coordinator will provide you with accurate and timely information about academic requirements and academic evaluation. The faculty should tell you about the availability of courses you wish to take and the program of study requirements. There should be regular communication and meetings between you and your coordinator and advisor so that you receive the guidance you need to progress.

What Can You Expect from the School of Graduate Studies and Research (SGSR)?

Graduate education and research are critical components of IUP. The SGSR personnel are responsive and supportive and can assist with a range of questions or concerns. Areas the SGSR can assist with include: registration, University-wide policies and procedures, research funding, conducting responsible research, formatting your thesis or dissertation, deadlines, graduation, graduate assistantships, transfer credits, and more. Visit www.iup.edu/graduatestudies for additional information and a link to personnel who can assist.

The SGSR will also field any questions or concerns you may have about your graduate experience and will work with you to resolve challenges that may arise.

What Can the Faculty and SGSR Personnel Expect from You?

We expect that you will work hard to earn your degree, complete work and course assignments by the deadlines provided by faculty members, and demonstrate professional integrity and academic honesty at all times. Civility is a valued trait at IUP and we expect every student to exhibit this trait.

We expect you to be aware of happenings outside of your project and thesis topic. You should be aware of current world events and significant changes occurring at the university. Our goal is to produce well-rounded alumni whose knowledge and awareness has both breadth and depth.

It is critically important that you communicate regularly with your thesis advisor and Graduate Coordinator. These are the most important people for helping ensure your success at IUP.

Evaluation of Students

For information regarding School of Graduate Studies and Research policies on grading, view the Graduate Catalog: www.iup.edu/gradcatalog

Competency Exam (non-thesis)

Students pursuing a Non-thesis option are required to take and pass a competency exam administered by the candidate's supervisory committee (advisor plus two biology faculty). The purpose of this examination is to assure that all graduates have a broad-based knowledge of biology, as well as a mastery of the subject matter pertaining directly or indirectly to their research project. The examination may be written, oral, or both and is not necessarily limited to areas in which the candidate has taken course work.

This examination should be scheduled after completion of **18** credits but before completion of **27** credits. Students will receive written feedback on the exam from their advisor, including recommendations on how to improve if the exam results are not satisfactory. If a student fails this exam, a second exam will be administered which, at the discretion of the committee, can be oral, written, or both. This exam must be taken within a four-month period following the first exam. Failure of the second exam will result in dismissal from the program.

Thesis Completion

A student pursuing the thesis option must conduct original research under the direction of the thesis supervisory committee and present a research thesis at the conclusion of the program. The candidate registers for 6 credits of BIOL 795 (Thesis) while engaged in research and preparation of the thesis. BIOL 795 is typically registered for during the Fall and/or Spring terms of the students 2nd year and can be divided between the 2 semesters or taken in a single semester.

The candidate will prepare a written thesis and then present an open public seminar, reporting results and implications of the research. Following the public seminar, the candidate also must complete an oral defense of the research before the supervisory committee.

Evaluation Outcome for Thesis

At completion of the thesis defense, the advisor and committee members will evaluate the defense using a rubric emphasizing the areas of research conduct, thesis quality, presentation quality, responses to questioning, ethic and integrity, and diversity. Students will receive oral and written feedback on the exam from their advisor and committee members, including recommendations on how to improve if the results of the defense are not satisfactory. The defense may be evaluated as pass, pass with revisions, revise and resubmit, or fail. If a student fails in his or her defense, a second defense will be scheduled with the committee after criticisms and deficiencies have been addressed. Failure of the second defense will result in removal from the thesis option. The student will still be eligible to pursue a non-thesis degree. In the case of dissenting committee members, students should first speak with their thesis advisor and then, if needed, seek the advice of the graduate coordinator to help achieve an agreeable solution.

Program Level Examination Appeals

Appeals for Program Level Exam, such as, candidacy, comprehensive, or qualifying examinations, are made to the dean of the School of Graduate Studies and Research (SGSR) based on policy and/or procedural violations. The appeal can be based only on policy and/or procedural violations; and not simply on the outcome of the examination. Procedural violations would be cases in which the program /department failed to follow program/department and/or University policies and/or procedures relating to the administration and/or evaluation of the exam.

The appeal must be made in writing to the dean of the School of Graduate Studies and Research. Documentation of the policy(ies)/procedures in question must be provided, along with a detailed description of the alleged violation(s). All evidence supporting the alleged violation should also be provided. The student must submit the written appeal to the dean of the SGSR within 30 days of receipt of the outcome of the examination. Upon receipt of the written appeal to the dean of the SGSR, the dean will conduct an investigation of the allegation, review the documentation and render a final decision which completes the appeal process. The final decision rendered by the dean of the SGSR may not be appealed.

If it is found that policy/and/or procedure has been violated, the dean of the SGSR will instruct the program/department to allow the student to retake the exam, fully adhering to policy and procedures. In the event of a finding in support of the student allegation, the reexamination may not be counted as one of the attempts permitted under the University or Department's Reexamination Policy.

Reexamination Policy

No student is permitted a “third” examination without a recommendation to that effect from the degree program’s sponsoring department per their adopted written procedures and the approval of the School of Graduate Studies and Research dean (or designee). Exceptions to this policy for programs can be made only with the approval of the School of Graduate Studies and Research. In the event a student does not successfully complete the comprehensive re-examination according to program requirements and the failure results in program dismissal, the program must notify the School of Graduate Studies and Research (SGSR) of the dismissal in writing. The SGSR will send an official notification of the dismissal to the student.

For students admitted after Fall 2017 -- Dissertation and thesis credits will be assigned Pass or Fail as the final evaluation outcome for the taken credits and carry no quality points weighted towards a student’s CGPA.

For students admitted before Fall 2017 – Dissertation and thesis credits will be assigned a letter grade as the final evaluation outcome for the credits taken and carry quality points weighted towards a student’s CGPA for the number of dissertation credits required for the program. “Extended” dissertation credits are not calculated into a student’s CGPA.

For more information, view the view the Graduate Catalog: www.iup.edu/gradcatalog

Degree Completion

Supervisory Committee

Each thesis-track student will form a supervisory committee that consists of a committee chair (the primary thesis advisor) and at least two other faculty members in the Department of Biology. The supervisory committee should be formed by the end of the first semester. In addition to the chair and two departmental committee members, outside committee members are permitted from other departments at IUP or from outside of IUP with permission of the committee chair. Justification for appointment of a committee member from outside IUP should be provided to the Graduate Coordinator and should include a vitae or resume. Non-thesis students should identify a research advisor during their first semester and will form a supervisory committee to administer their competency exam before the end of their second semester.

All students should complete and submit a Supervisory Committee Form by the end of their second semester.

IUP/SGSR Deadlines

Know the deadlines for submitting your Research Topic Approval Form (RTAF), applying for graduation, and final submission of your thesis and accompanying forms. Missing one of these deadlines will impact your plans for graduation. The RTAF is due by the end of the semester before you intend to defend and graduate. All SGSR deadlines are posted here:

<https://www.iup.edu/graduatestudies/resources-for-current-students/research/thesis-dissertation-information/deadlines/>

Departmental Deadlines

You must publicly defend your thesis at least two weeks prior to the deadline for final submission of your thesis. The date, time, and location of the defense must be reported to the department secretary at least two weeks prior to the defense. The final pre-defense draft of your thesis should be provided to your committee members at least two weeks prior to the defense.

Applying for Graduation

For details on how to apply for graduation, visit:

<http://www.iup.edu/commencement/graduate/how-to-apply-for-graduation/>

Access forms processed through the SGSR, click on *Current Students*:

<http://www.iup.edu/graduatestudies/>

Degree Requirements

Thesis-Option

Total Credits Required = **32 credit hours**

Required Core Courses = 11 credit hours

BIOL 602 Biometry	3 cr.
BIOL 611 Biology Seminar I	1 cr.
BIOL 612 Biology Seminar II	1 cr.
BIOL 795 Thesis	6 cr.

Elective Courses = 21 credit hours

Twenty-one credit hours of courses to be selected from the 500- and 600-level biology elective courses. Up to 6 credit hours may be selected from related science and mathematics courses.

Required Graduate Thesis

Includes both a written thesis and public oral defense.

Non-thesis Option

Total Credits Required = **35 credit hours**

Required Courses = 8 credit hours

BIOL 602 Biometry	3 cr.
BIOL 611 Biology Seminar I	1 cr.
BIOL 612 Biology Seminar II	1 cr.
BIOL 699 Independent Study	3 cr.

Elective Courses = 27 credit hours

Twenty-seven credit hours to be selected from the 500- and 600-level biology elective courses. Up to 6 credit hours may be selected from related science and mathematics courses.

Required Competency Exam

Includes an oral, written, or combined exam given by supervisory committee.

Timeline for Successful Program Completion

Fall Semester Year 1

- 1) Enroll in required courses BIOL 602 Biometry and BIOL 611 Seminar I
- 2) Enroll in 6 additional credit hours of coursework at the 500 or 600 level.
- 3) Identify thesis advisor
- 4) Write RTAF with thesis advisor
- 5) Form Thesis Committee*
- 6) Complete required laboratory safety training

Spring Semester Year 1

- 1) Enroll in required course BIOL 612 Seminar II
- 2) Enroll in 9 additional credit hours of coursework at the 500 or 600 level
- 3) Meet with thesis advisor and committee to present research topic
- 4) Complete RTAF and submit to the SGSR
- 5) Complete appropriate protocols for research involving humans (IRB) or vertebrate animals (IACUC)
- 6) Begin research activities (following completion of items 3 and 4, completion of safety training, and with approval of IRB or IACUC if applicable)

Fall Semester Year 2

- 1) Enroll in 9 additional credit hours of coursework at the 500 or 600 level

This may include up to 6 credits of the required BIOL 795 (thesis research) or 3 credits of the required BIOL 699 (Independent Study for non-thesis) with approval of your thesis/research advisor

- 2) Begin writing thesis
- 3) Form Advisory Committee for Competency Exam (for non-thesis)
- 4) Schedule Competency Exam (for non-thesis)

Spring Semester Year 2

- 1) Enroll in 3 (Thesis) or 6 (Non-Thesis) additional credit hours of coursework at the 500 or 600 level
 - a. This may include required BIOL 795 or BIOL 699 with approval of your thesis/research advisor
 - b. Students need to take remaining credit hours to reach 32 (Thesis) or 35 (Non-Thesis) total credit hours
- 2) Submit Application to Graduate (file with Graduate School)
- 3) Complete writing thesis
- 4) Schedule thesis defense

Deadlines for degree completion

For more information, view the Graduate Catalog: www.iup.edu/gradcatalog

For a May Graduation

December 15: Master's candidates have filed their RTAF.

March 1: Draft of thesis has been provided to all committee members to review ahead of the defense (Biology departmental deadline).

March 15: Master's candidates have successfully defended thesis (Biology departmental deadline).

April 1: Master's candidates have successfully defended thesis (SGSR deadline).

April 1: Draft copy of thesis submitted to the School of Graduate Studies and Research (grad-research@iup.edu) for review.

April 1: Copies of signed thesis signature pages and necessary forms submitted to the School of Graduate Studies and Research.

April 15: Electronic thesis/dissertation submitted to ProQuest.

May 1: Master's candidates have applied for graduation through URSA.

For an August Graduation

May 15: Master's candidates have filed their RTAF.

June 1: Draft of thesis has been provided to all committee members to review ahead of the defense (Biology departmental deadline).

June 15: Master's candidates have successfully defended thesis (Biology departmental deadline).

July 1: Master's candidates have successfully defended thesis (SGSR deadline).

July 1: Draft copy of thesis submitted to the School of Graduate Studies and Research (grad-research@iup.edu) for review.

July 1: Copies of signed thesis signature pages and necessary forms submitted to the School of Graduate Studies and Research.

July 15: Electronic thesis submitted to ProQuest.

August 1: Master's candidates have applied for graduation through URSA.

For a December Graduation

August 15: Master's candidates have filed their RTAF.

October 1: Draft of thesis has been provided to all committee members to review ahead of the defense (Biology departmental deadline).

October 15: Master's candidates have successfully defended thesis (Biology departmental deadline).

November 1: Master's candidates have successfully defended thesis (SGSR deadline).

November 1: Draft copy of thesis submitted to the School of Graduate Studies and Research (grad-research@iup.edu) for review.

November 1: Copies of signed thesis signature pages and necessary forms submitted to the School of Graduate Studies and Research.

November 15: Electronic thesis submitted to ProQuest.

December 1: Master's candidates have applied for graduation through URSA.

University Policies and Procedures

University policy is the baseline policy. Programs may have policy that is more stringent than the University baseline policy; however, not less stringent than the University baseline policy. For questions regarding this statement, please contact [Program Coordinator] or the School of Graduate Studies and Research.

Academic Calendar

View the IUP Academic Calendar: www.iup.edu/news-events/calendar/academic/

The following University and SGSR policies can be found at www.iup.edu/gradcatalog

Academic Good Standing

www.iup.edu/gradcatalog

Academic Integrity

www.iup.edu/gradcatalog

The Source: A Student Policy Guide: www.iup.edu/studentconduct/thesource/

Bereavement-Related Class Absences

www.iup.edu/gradcatalog

Continuous Graduate Registration for Dissertation and Thesis

www.iup.edu/gradcatalog

Grade Appeal Policy

www.iup.edu/gradcatalog

Graduate Fresh Start Policy

www.iup.edu/gradcatalog

Graduate Residency Requirement

www.iup.edu/gradcatalog

Leave of Absence Policy

www.iup.edu/gradcatalog

Time Limitations

www.iup.edu/gradcatalog

Time-to-Degree Masters/Doctoral Dismissal Appeal Policy

www.iup.edu/gradcatalog

Time-to-Degree Extension for Master's Thesis and Doctoral Dissertation

www.iup.edu/gradcatalog

Transfer of Credits Policy

www.iup.edu/gradcatalog

Research

Graduate students are expected to comply with all applicable federal, state, and university research regulations. Before conducting research at IUP, you should review the [research policies](#), paying extra attention to several in particular:

Export Control

[Export Control](#) regulations are federal laws that prohibit the unlicensed export of certain commodities or information for reasons of national security or protections of trade. An export is any oral, written, electronic, or visual disclosure, shipment, transfer, or transmission of commodities, technology, information, technical data, assistance, or software codes to anyone outside the US, a non-US individual wherever they are, or a foreign embassy or affiliate.

Human Subjects Protection

[Human Subjects Protection](#) at IUP is overseen by the Institutional Review Board (IRB) for the Protection of the Human Subjects. The IRB is the regulatory body of IUP that is responsible for the review of research that involves human participants. The purpose of IRBs nationally is to protect participants in research as well as to protect researchers conducting research involving human participants.

Animal Care and Welfare

[Animal Care and Welfare](#) at IUP is overseen by the Institutional Animal Care and Use Committee (IACUC). This committee is charged with ensuring compliance with federal regulations concerning the use and welfare of animals in teaching and research. The IACUC also strives to ensure that all uses of animals under the auspices of IUP are held to highest ethical standard.

Research Misconduct

[Research Misconduct](#) means fabrication, falsification, plagiarism, or other practices that seriously deviate from those that are commonly accepted within the research community for proposing, conducting, or reporting research, including failure to comply with Federal regulations for protection of researchers, human subjects, the public, or the welfare of laboratory animals.

Copyright

[Copyright](#) information is available to help guide you in writing your thesis or dissertation.

Plagiarism

[Plagiarism](#) is a type of fraud that involves using someone else's words, ideas, or data as if it were one's own work, and is defined in the [Academic Integrity Policy](#). Visit the [Writing Center](#) for help understanding what constitutes plagiarism and how to avoid it.

Technology Transfer and Intellectual Property

[Technology Transfer and Intellectual Property](#) guidance and resources are available for students at IUP and through [PASSHE](#).

Resources

Biology Instructional Computing Lab: Graduate students will have access to the Biology Instructional Computing Lab (located in 120A Weyandt Hall), and the equipment therein. Graduate students may use this room, the computers therein, and the printer. Graduate students are expected to treat the equipment with care and respect. The printer, while available, should be used judiciously. Excessive amounts of printing in this room may result in restrictions on paper use. Additionally, this is a teaching classroom, and classroom activities will take priority and should not be infringed upon by other activities.

Biology Research Laboratories: Access to research laboratories will be at the discretion of the thesis/research advisor for the student. The policies and usage restrictions will be set by the thesis/research advisor. Unless specifically employed to do so, graduate students are not allowed to drive department vans or other vehicles.

Thesis Manual: The Thesis Manual, available as a downloadable PDF document, is intended to guide you through the process of completing your thesis. Your thesis is representative of your ability to conduct original research in your chosen field. As such, future employers may review your thesis or dissertation to make hiring or tenure decisions. For this reason, the School of Graduate Studies and Research and the graduate faculty have established standards in order to produce a publication of the highest quality. You are required to comply with the deadlines and procedures described in this manual.

<http://www.iup.edu/graduatestudies/resources-for-current-students/research/thesis-dissertation-manual/>

For more information, visit the website of the School of Graduate Studies and Research, click on *Research*: www.iup.edu/graduatestudies/

Biology Graduate Student Society (BiGSS): Connect with other graduate students in the Department of Biology. <https://www.facebook.com/IUP-Biology-Graduate-Student-Society-172130759604017/>

Grants and Awards

Research Grants

Grants are available from the SGSR and from the Biology Department to encourage and support graduate students as they undertake research and creative projects that will contribute new insights in their chosen academic field. The maximum amount of the grant that students may receive in support of their thesis research project is \$1,000 per year. Two grant competitions are held annually; proposals are due the first Monday in November and the first Monday in February. Departmental grants follow the same guidelines and deadlines as the SGSR grants. Students are eligible to receive a maximum of one departmental grant for a maximum of \$1,000 (amount varies annually).

Travel

Funds are available from the SGSR for graduate students presenting scholarly papers at professional meetings. Master's students may apply for up to \$750 in funding for the fiscal year and funds are distributed on a first-come, first-served basis.

Professional Development

Funds are available to support participation in scholarly and creative activities that add to professional development in a significant way. Applicants may request up to \$300 and must provide a clear description of the proposed activity. Examples of eligible activities include serving as a moderator, discussant, or session chair at a disciplinary conference; presenting research methodology for feedback at a roundtable discussion at a conference; or leadership activities related to professional or disciplinary associations. Simply attending a conference, while a valuable learning experience, is not eligible for support.

Publication Costs

Costs associated with the publication of articles in scholarly journals, which pay no royalty or fee to the author, will be funded up to a limit of \$500. These costs include: article submission fees, reasonable photographic reproduction fees, and page charges. This policy does not extend to any writing for which the student receives compensation or to vanity press charges.

For more information and instructions on how to apply for funding, visit the SGSR Internal Funding for Graduate Student Research website: <http://www.iup.edu/research/resources/funding-research/students/graduate/internal-iup-funding-for-graduate-student-research/>

Research Experiences for Summer Scholars (RESS)

Participate in the cutting-edge research being done at IUP this summer (Summer Sessions I and II) during the annual Research Experiences for Summer Scholars program.

The RESS program promises some of the best networking opportunities and professional development events during your time at Indiana University of Pennsylvania. You will be amazed by the resources available to you and the quality of research right here at IUP. Many exciting frontiers are being explored, and you can be a part of it all! Limited funding may be available to students as a summer salary.

<https://www.iup.edu/natsciandmath/events/ress/>

Graduate Student Outstanding Research Award

The School of Graduate Studies and Research recognizes graduate students who have completed what their academic departments believe to be outstanding research projects during the academic year. Three to five \$100 awards are made, on a competitive basis, to graduate students each spring, following the review of a faculty nomination letter and a completed proposal. Awards are presented at the annual university-wide Research Awards Luncheon.

The Thomas Smythe Memorial Scholarship

This award is open to any graduate student or any undergraduate student with junior standing during the Fall of the submission year. The student must be majoring in Biology (any track), Biology Education, or Environmental Health. This award is based on academic achievement, research within the Biology Department, community and/or university involvement, and involvement and/or leadership within the department.

Dr. Thomas Smythe was a biology faculty member and head of the Department of Science during the 1930s and 1940s before the Department of Science was split into separate science departments. He was an active biologist with interests in marine biology, birds, and small mammals.

Signature Page

My signature below indicates that I am responsible for reading and understanding the information provided and referenced in this department/program student handbook.

_____ [please initial] I understand my program coordinator may share this document with the School of Graduate Studies and Research.

Print Name

Signature

Date

Submit to _____ by [Date]

**Submit by email to the Graduate Coordinator by the end of your first semester.
The Graduate Coordinator will keep this signed document on file.**