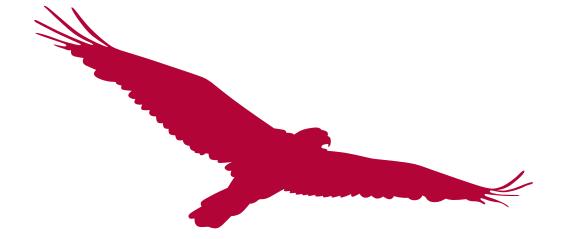


# Biology Graduate Handbook

Department of Biology



### **IUP Biology Graduate Program**

Department of Biology 114 Weyandt Hall (724) 357–2352

Program Website: <a href="http://www.iup.edu/biology/grad/">http://www.iup.edu/biology/grad/</a>

Cuong Diep, PhD Graduate Coordinator Office: 125 Weyandt Hall Phone: (724) 357–2269

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#### WELCOME

Welcome to the IUP Biology Graduate Program! Expanding your career opportunities is an inherent part of IUP graduate biology studies. Many destinations await you in medicine, private industry, government, and higher education. Your MS experience may provide a ladder to doctoral studies. Our 20 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.

#### Indiana University of Pennsylvania

Founded in 1875, IUP is a vibrant, comprehensive, research-based, teaching-focused, student-centered learning community. IUP combines the academic opportunities of a large university with the highly personalized and intimate learning-centered environment of a small college. Over 2,200 graduate students call IUP home, with a 374 acre main campus located in Indiana, Pennsylvania. A combination of historical charm and state-of-the-art facilities, campus includes 59 major buildings, 11 athletic fields, and the Stapleton/Stabley Library, with a collection of more than 900,000 books, subscriptions to about 15,000 serials in multiple formats, and more than 100,000 audiovisual materials.

#### **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.

### **Department of Biology**

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 MS 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.

#### **Biology Graduate Faculty**

With 20 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 (2017–18), with contact information and profiles of faculty research interests available on the <u>IUP Biology Website</u>.

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

Joseph Duchamp (Ph.D., Purdue University); Associate 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

Robert Hinrichsen (Ph.D., Indiana University at Bloomington); Professor

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

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

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

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

Ellen Yerger (Ph.D., University of Illinois Urbana-Champaign); Assistant 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 <u>at least 2.6</u>, or submit a Miller Analogies Test score greater than <u>47</u>. Keep in mind that these are the <u>minimum</u> 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 <u>500</u> on the paper-based test (PBT), <u>173</u> on the computer-based test (CBT), or <u>61</u> on the internet-based test (iBT), or take the International English Language Testing System (IELTS) exam and score greater than <u>5.0</u>. Keep in mind that these are the <u>minimum</u> 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 <u>1</u> 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, with Spring admissions made only in specific circumstances.

For more information on Graduate Admissions: <a href="www.iup.edu/admissions/graduate/">www.iup.edu/admissions/graduate/</a>

For more information regarding Admission Classification and Provisional Admission for International Graduate Application, view the Graduate Catalog: <a href="www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

#### **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 thesis mentor. Full time students can be eligible for 20-hour or 10-hour per week GAs. For more information, visit: <a href="http://www.iup.edu/admissions/graduate/financialaid/assistantships-and-scholarships/">http://www.iup.edu/admissions/graduate/financialaid/assistantships-and-scholarships/</a>

For more information about loans, the Federal Work Study program, and other financial aid, visit the **Office of Financial Aid** at <a href="https://www.iup.edu/financialaid/">www.iup.edu/financialaid/</a>.

#### **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 <u>Graduate Student Semester Evaluation Form</u> 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 Biology Office. 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: <a href="www.iup.edu/graduatestudies/">www.iup.edu/graduatestudies/</a>

Graduate Catalog: <a href="www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

Office of the Bursar: <a href="www.iup.edu/bursar/">www.iup.edu/bursar/</a>
Office of the Registrar: <a href="www.iup.edu/registrar/">www.iup.edu/registrar/</a>

Disability Support Services: <a href="https://www.iup.edu/disabilitysupport/">www.iup.edu/disabilitysupport/</a>

IUP Campus Library <a href="www.iup.edu/library/">www.iup.edu/library/</a>

MyIUP: <a href="https://www.iup.edu/myiup/">www.iup.edu/myiup/</a>

Applied Research Lab: <a href="www.iup.edu/arl/">www.iup.edu/arl/</a>

IT Support Center: <a href="www.iup.edu/itsupportcenter/">www.iup.edu/itsupportcenter/</a>

Veterans and Service Members: <a href="www.iup.edu/itsupportcenter/">www.iup.edu/itsupportcenter/</a>

IUP Writing Center: <a href="www.iup.edu/writingcenter/">www.iup.edu/writingcenter/</a>

IUP Career and Professional Development Center <a href="http://www.iup.edu/career/">http://www.iup.edu/career/</a>

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

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

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

#### **IUP** Email

IUP offers an email account to all active students. Your IUP email address is the primary means by with 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 <a href="https://www.iup.edu/itsupportcenter/howTo.aspx?id=23401">www.iup.edu/itsupportcenter/howTo.aspx?id=23401</a> to learn more about setting up this account. For more information regarding University policy on email communication, view the Graduate Catalog: <a href="https://www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

### **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 <a href="https://www.iup.edu/graduatestudies/gsa">www.iup.edu/graduatestudies/gsa</a> for more information.

### MASTER OF SCIENCE 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. degree in Biology has two alternatives, the <u>thesis</u> and <u>non-thesis</u> options. 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 alternatives 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/or major advisor will communicate regularly with you and will provide intellectual guidance and support for your scholarly efforts. Your 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 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. School of Graduate Studies and Research 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 <a href="www.iup.edu/graduatestudies">www.iup.edu/graduatestudies</a> 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, thesis, or dissertation 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 <u>critically important</u> that you communicate regularly with your research advisor and graduate coordinator. <u>These are the most important people for helping ensure your success at IUP.</u>

### **Supervisory Committee**

Each <u>thesis-track</u> graduate student will form a supervisory committee that consists of a committee chair (the primary research 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, <u>outside committee members</u> 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. <u>Non-thesis</u> 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.

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

#### **Course Descriptions**

For descriptions of Biology Graduate Courses, visit: http://www.iup.edu/graduatestudies/catalog/course-descriptions/biol--biology/

#### **IUP/SGSR Deadlines**

Know the deadlines for submitting your research topic approval form, applying for graduation, and final submission of your thesis and accompanying forms. Missing one of these deadlines will impact your plans for graduation. The research topic approval form is due by the <u>end of the semester before you intend to defend</u> and graduate. All SGSR deadlines are posted here:

 $\underline{http://www.iup.edu/graduatestudies/resources-for-current-students/research/thesis-dissertation-information/deadlines/}$ 

#### **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 <u>two</u> <u>weeks prior to the defense</u>.

The final pre-defense draft of your thesis should be provided to your committee members at least <u>two</u> weeks prior to the defense.

### Applying for Graduation

For details on how to apply for graduation, visit: <a href="http://www.iup.edu/commencement/graduate/how-to-apply-for-graduation/">http://www.iup.edu/commencement/graduate/how-to-apply-for-graduation/</a>

For more information, view the view the Graduate Catalog: <a href="www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

Access forms processed through the School of Graduate Studies and Research, click on *Current Students*: <a href="http://www.iup.edu/graduatestudies/">http://www.iup.edu/graduatestudies/</a>

### **Degree Completion**

### **Thesis-Option**

Total Credits Required = <u>32 credit hours</u>

### Required Core Courses = 11 credit hours

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

#### 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 = <u>35 credit hours</u>

### Required Courses = 8 credit hours

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

### 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 Research/Thesis Advisor
- 4) Write Research Proposal with Research Advisor
- 5) Form Thesis Committee\*

### 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 research adviser/committee and present Research Proposal
- 4) Complete Research Topic Approval Form and file with Graduate School
- 5) Complete required laboratory safety training
- 6) Complete appropriate protocols for research involving humans (IRB) or animals (IACUC)
- 7) Begin Research Activities (following completion of items 3 and 4, and with approval of protocols identified in 5 and 6)

#### Fall Semester Year 2

- 1) Enroll in 9 additional credit hours of coursework at the 500 or 600 level
  - a. This may include required BIOL 795 or 699 with approval of your thesis/research advisor
- 2) Begin writing Graduate Thesis \*
- 3) Form Advisory Committee for Competency Exam\*\*
- 4) Schedule Competency Exam \*\*

### 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 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 of Graduate Thesis \*
- 4) Schedule Thesis Defense\*

### \* Appropriate benchmark for thesis students only

\*\* Appropriate benchmark for non-thesis students

### Important Deadlines for Degree Completion

### For a May Graduation

December 15: Master's candidates have filed their Research Topic Approval Form.

<u>March 1</u>: 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).

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

<u>April 1</u>: 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 Research Topic Approval Form.

<u>June 1</u>: 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).

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

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

<u>July 15</u>: 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 Research Topic Approval Form.

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.

#### **Evaluation of Students**

#### Competency Exam

Students pursuing a <u>Non-thesis option</u> 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 semester hours but before completion of 27 semester hours. 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.

For more information regarding School of Graduate Studies and Research Policy on grading, view the Graduate Catalog: <a href="www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

#### **Thesis Completion**

A student pursuing the graduate 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 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 <u>pass</u>, <u>pass with revisions</u>, <u>revise and resubmit</u>, or <u>fail</u>. 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.

**Effective for students admitted Fall 2017 and after –** 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.

Ongoing Thesis students admitted "prior" to fall 2017 – 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.

For more information, view the view the Graduate Catalog: <a href="www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

Access forms processed through the School of Graduate Studies and Research, click on *Current Students*: <a href="http://www.iup.edu/graduatestudies/">http://www.iup.edu/graduatestudies/</a>

#### RESEARCH

#### **Research Policies**

Graduate students are expected to comply with all applicable federal, state, and university research regulations. Before conducting research at IUP, you should review the <u>research policies</u>, paying extra attention to several in particular:

#### **Export Control**

<u>Export Control</u> 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**

<u>Human Subjects Protection</u> 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

<u>Research Misconduct</u> 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

<u>Plagiarism</u> 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 <u>Academic Integrity Policy</u>. Visit the <u>Writing Center</u> for help understanding what constitutes plagiarism and how to avoid it.

### **Technology Transfer and Intellectual Property**

<u>Technology Transfer and Intellectual Property</u> guidance and resources are available for students at IUP and through <u>PASSHE</u>.

#### Research 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.

**Applied Research Lab**: The IUP Applied Research Lab is located in 123 Stright Hall, and is a free research consulting center dedicated to providing expert assistance, including advice and consulting in research statistics. <a href="www.iup.edu/arl/">www.iup.edu/arl/</a>

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

For more information, visit the website of the School of Graduate Studies and Research, click on Research: <a href="https://www.iup.edu/graduatestudies/">www.iup.edu/graduatestudies/</a>

**Biology Graduate Student Society (BiGGS):** Connect with other graduate students in the Department of Biology. <a href="https://www.facebook.com/IUP-Biology-Graduate-Student-Society-172130759604017/">https://www.facebook.com/IUP-Biology-Graduate-Student-Society-172130759604017/</a>

#### **Internal Financial Support for Research**

#### **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: <a href="http://www.iup.edu/research/resources/funding-research/students/graduate/internal-iup-funding-for-graduate-student-research/">http://www.iup.edu/research/resources/funding-for-graduate-student-research/</a>

#### 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. <a href="https://www.iup.edu/natsciandmath/events/ress/">https://www.iup.edu/natsciandmath/events/ress/</a>

#### Awards

### 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.

### 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 the Biology Graduate Coordinator or the School of Graduate Studies and Research. A comprehensive list of University-wide Policies and Procedures can be found in the latest Graduate Catalog (<a href="www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>).

#### Academic Calendar

View the IUP Academic Calendar: <a href="www.iup.edu/news-events/calendar/academic/">www.iup.edu/news-events/calendar/academic/</a>

#### **Academic Grade Appeal Policy**

For Information regarding the Grade Appeal policy, view the Graduate Catalog: <a href="https://www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

#### **Academic Integrity**

For more information, view the Graduate Catalog: <a href="www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>
The Source: A Student Policy Guide: <a href="www.iup.edu/studentconduct/thesource/">www.iup.edu/studentconduct/thesource/</a>

### Academic Status and Satisfactory Academic Progress

Students must maintain a cumulative graduate grade-point average (GPA) of at least 3.0 to remain in good academic standing. Students who fall below good standing are placed on probation for their next active semester or summer term, during which the cumulative average must be raised to 3.0. Students who fail to raise their cumulative averages to at least 3.0 during their probation period will be dropped from their degree program as well as from the School of Graduate Studies and Research and will not be permitted to register for further courses. A student must be in good standing to be admitted to degree candidacy and to graduate. For more information, view the Graduate Catalog: <a href="https://www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

#### **Affirmative Action**

Indiana University of Pennsylvania is committed to providing leadership in taking affirmative action to attain equal educational and employment rights for all persons, without regard to race, religion, national origin, ancestry, sex, physical handicap, or affectional or lifestyle orientation. This policy is placed in this document in accordance with state and federal laws including Titles VI and VII of the Civil Rights Act

of 1964, Title IX of the Educational Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973 as well as federal and state executive orders. This policy extends to disabled veterans and veterans of the Vietnam era. Please direct inquiries concerning equal opportunity to: Office of the Provost, 205 Sutton Hall, 1011 South Drive, IUP, Indiana, PA 15705-1046 U.S.A.

#### **Bereavement-Related Class Absences**

For Information regarding the Bereavement-Related Class Absences policy, view the Graduate Catalog: <a href="https://www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

#### Continuous Graduate Registration for Thesis

Masters thesis, MFA thesis and Doctoral dissertation students beginning the program in Fall 2017 and thereafter, must adhere to the following <u>IUP Continuous Graduate Registration policy for Dissertation and Thesis</u>:

Following completion of course work, including internship or practicum; (excluding comprehensive exam or qualifiers) **all** Master's students must be continuously enrolled for at least one credit of dissertation or thesis each semester (Fall and Spring) annually, through the graduation of the student or until the time limit is exceeded. There is no separation between completions of course work and initiation of thesis credit registration.

Once the student has registered for the number of dissertation credits required by the program of study (typically nine or twelve), or the number of thesis credits required by their program of study (typically three to six), she or he must register for one dissertation or one thesis credit each semester (Fall and Spring) annually through the graduation of the student or until the time limit is exceeded (See Time Limitation Policy for doctoral or master's students). For this period, the student will be considered a full-time doctoral or masters student.

All dissertation and thesis credits will be pass/fail credits. Students must complete the minimum number of dissertation or masters thesis credits required by their program, but may take additional dissertation or thesis credits as is necessary to comply with the Continuous Graduate Registration for Dissertation and Thesis policy.

Until the dissertation or thesis is successfully defended, a grade of "R" will be assigned to each registered credit. Upon successful completion of the dissertation or thesis, the grade assigned by the dissertation or thesis director will apply to all registered dissertation or thesis credits. Students must pay tuition and mandatory university fees for all credits (equal to the part-time mandatory fees), and may choose to pay the Wellness Fee.

For more information regarding School of Graduate Studies and Research policy on registration, view the Graduate Catalog: <a href="www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

Access forms processed through the School of Graduate Studies and Research, click on *Current Students*: <a href="http://www.iup.edu/graduatestudies/">http://www.iup.edu/graduatestudies/</a>

#### **Graduate Fresh Start Policy**

A graduate student who has been separated from the university as a result of academic dismissal, including time-to-degree dismissal, may only apply for readmission to the University if the student has

been separated from the university, for a minimum of two calendar years (24 consecutive months) from the date of dismissal. The request to be considered for readmission to the University must be into a graduate program, and readmission to the program from which the student was dismissed may not be sought. A student dismissed as a result of an academic integrity violation is barred from utilizing the Graduate Fresh Start Policy to request readmission.

#### Conditions for a Graduate Fresh Start Application

A graduate student may apply for a Graduate Fresh Start only if he/she meets all of the following conditions:

- he/she was academically dismissed, including time-to-degree dismissal from an IUP graduate program;
- he/she has been separated from the university for a minimum of two calendar years (24 consecutive months);
- he/she applies for readmission consideration to a graduate program at IUP, excluding the program from which the student was academically dismissed.

The graduate student must apply to the desired program through the standard Admissions process. Having reviewed the prior and intervening factors for evidence of potential for improved academic success, the program coordinator, after departmental review, may recommend to the Dean of Graduate Studies and Research that the student be readmitted to the University and admitted to the program. The Dean's decision is final and is not subject to appeal.

#### Conditions for a Graduate Fresh Start Record

All credits and grades for IUP course work taken before readmission under this Graduate Fresh Start Policy shall remain on the transcript. Upon readmission, a new cumulative (GPA) is established based on credits and grades earned from the date of readmission. Individuals may seek readmission to the University though the provisions of this policy only once.

### **Prior Record**

The student's graduate record will be identified as a Graduate Fresh Start. No graduate credits earned from the program in which the student was dismissed are permitted to be transferred to the Graduate Fresh Start sought degree. Any other transfer credits must meet the IUP Transfer Credit Policy.

Students seeking a degree under the Graduate Fresh Start are not permitted to repeat a previously taken course from the program in which the student was dismissed and have it count towards improving the previous CGPA that was prior to readmission. Any course repeat(s) will be counted as a course taken under the Graduate Fresh Start and applied solely to the new degree sought and new cumulative GPA.

#### **Academic Standards**

A student who is readmitted under the provisions of the Graduate Fresh Start Policy shall be required to meet current degree requirements. He/she shall be academically reviewed under the policies published in the academic catalog at the time of re-matriculation. Students readmitted to the University under this policy and who were dismissed initially by exceeded time-to-degree requirements may not be granted extensions of time-to-degree requirements.

### Graduation Graduate Residency Requirement Policy

At least **2/3rds** of the credits meeting program requirements must be taken from the University offering the degree. Note that these set the minimum number of credits that must be taken "in residence" and that universities can limit the number of hours that will be allowed to transfer into a graduate program.

Active-duty service members who are graduate students will be handled on a case by case basis.

Exceptions must be approved by the Office of the Chancellor's Division of Academic and Student Affairs.

#### **Program Level Exams Appeal Policy**

Appeals for comprehensive 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 violations(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: Candidacy/Comprehensive Examination

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.

### Registration

Instructions for registration: <a href="http://www.iup.edu/registrar/students/registration/">http://www.iup.edu/registrar/students/registration/</a>
For more information regarding registration and tuition billing, please contact the Office of the Bursar: <a href="https://www.iup.edu/bursar/">www.iup.edu/bursar/</a>

### **Social Equity**

The Office of Social Equity: <a href="www.iup.edu/socialequity/">www.iup.edu/socialequity/</a>

#### **Student Conduct**

Policies from the Office of Student Conduct: <a href="www.iup.edu/studentconduct/policies/">www.iup.edu/studentconduct/policies/</a>

#### **Time Limitations**

Masters students must complete degree requirements no later than <u>five years</u> from the date of earning or transferring credit, unless the period is extended through student petition. Petitions are approved by the student's department and the dean of the School of Graduate Studies and Research.

For more information regarding School of Graduate Studies and Research policy on registration, view the Graduate Catalog: <a href="www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

### Time-to-Degree Masters Dismissal Appeal Policy

A student dismissed from a program because of time-to-degree expiration (see Time Limitations policy) can appeal the decision 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/procedural violations.

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 violations(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 dismissal letter.

Upon receipt of the written appeal to the Dean of the SGSR 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 rescind the dismissal.

Masters student time limitation (see Time Limitations policy) <u>may be extended</u> through student petition to the Assistant Dean of the SGSR. The program coordinator on behalf of the student, no later than the first day of the month of the student's time-to-degree expiration date, makes the request to the Dean (or designee) of the SGSR. The request must include justification for the extension. Official documentation to justify the request for the extension and the amount of time will be required by the Dean (or designee) of SGSR to support the request.

#### Title IX Reporting Requirement

For more information regarding Title IX Reporting Requirement policy, view the Graduate Catalog: <a href="https://www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

### Transfer of Credits Policy (Effective Fall 2017)

A student may transfer graduate credits from another institution, with Department approval, up to one third (1/3) of the required credits for the graduate student's program at IUP. These graduate courses must have been taken from a regionally accredited institution, within the past five years, and the grade earned must be a "B" or its equivalent or better. The time limitation rule and residency requirements pertain without modification to transfer credits.

Up to one third (1/3) graduate credits originally earned in one graduate program at IUP may be applied

toward a different graduate program if: 1) the receiving department and 2) the School of Graduate Studies and Research both approve the credits as meeting degree requirements. These courses must have been completed within the past five years, and the grade earned must be a "B" or its equivalent or better.

The combination of transfer graduate credits earned at another institution and those earned at IUP may not exceed one third (1/3) of the total required graduate credits for the program.

To request transfer credits, the student must complete the Request for Graduate Transfer Credit Review form and follow the instructions listed on the form. A catalog course description or course syllabus must accompany the request. An official graduate transcript showing the earned graduate credits must be provided by the school at which the credits were taken. To be considered official, the transcript must arrive in a sealed envelope bearing the official seal of the issuing institution. The request is reviewed in the School of Graduate Studies and Research and the academic department. After review, the student's program coordinator and the student are notified of the transfer decision.

It is strongly recommended that students seeking to transfer graduate credits from another institution while enrolled at IUP receive advance written authorization for credit acceptance from the School of Graduate Studies and Research and the academic department prior to enrolling in that course.

If graduate credits earned at another institution are approved for transfer, only the credit, <u>not the grade or accompanying quality points</u>, will appear on the student's IUP transcript. Graduate credits earned at IUP that are approved for transfer to a second program will not be posted to the transcript a second time.

For more information regarding School of Graduate Studies and Research policy on transfer credits, view the Graduate Catalog: <a href="www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>
Access forms processed through the School of Graduate Studies and Research, click on *Current Students*: <a href="http://www.iup.edu/graduatestudies/">http://www.iup.edu/graduatestudies/</a>

#### STUDENT RIGHTS AND RESPONSIBILITIES

Upon admission to the School of Graduate Studies and Research, students assume responsibility for knowing program requirements and following departmental advising requirements when selecting and registering for courses. Students are also responsible for knowing the procedures for paying fees, processing class drop/adds and withdrawals, and applying for and meeting all requirements for graduation.

Students writing a thesis or dissertation are responsible for several items, including selecting a committee, research topic approval, and much more. Please view the Thesis and Dissertation manual "Responsibilities" section, starting on page 4, to view requirements for students writing a thesis or dissertation.

Conversely, students have the right to expect that program requirements will be made clear, that course requirements—including grading criteria and procedures—will be made known early in a course, and that course grades will represent the instructor's professional and objective evaluation of performance. Students have the right to instruction that encourages the free and open discussion of ideas and that

respects reasonable student needs and aspirations. Students share with instructors the responsibility for creating a classroom atmosphere that encourages maximum learning and exhibits a more intense scholarly zeal than that expected in undergraduate studies.

For more information regarding student rights and responsibilities, view the Graduate Catalog: <a href="https://www.iup.edu/graduatestudies/catalog/">www.iup.edu/graduatestudies/catalog/</a>

Date

## Signature Page

Congratulations on choosing to further your education at IUP! Our department is committed to your success.

This student handbook provides information that is essential to your successful program completion and also provides information about University services that may be helpful to you. Additionally, our statement of student rights and responsibilities provide the framework for your role as an IUP citizen and a member of the IUP community.

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

[please initial] I understand the Biology Graduate Coordinator or Department Chairperson may share this signed document with the School of Graduate Studies and Research.

Print Name

Signature

Submit by emai) to the Graduate Coordinator (Dr. Diep) by the end of your first semester.

The Graduate Coordinator will keep this signed document on file.