



# IMPORTANT DATES FOR 1ST YEARS - 2023-2024 ACADEMIC YEAR

First Day of Classes

First Rotation Presentations (PMB Only) Second Rotation (PMB & Jenkins) Third Rotation Presentations (PMB & Jenkins)

Join Thesis Laboratory

**1st-Year Proficiency Reviews** 

August 29, 2023

December 8, 2023 March 15, 2024 May 17, 2024

May 20

May 27-31, 2024

# **ROTATION CYCLES**

First Rotation (PMB Only) Second Rotation (PMB & Jenkins) Third Rotation (PMB & Jenkins) October 16, 2023 – December 8 2023 January 22, 2024 – March 15, 2024 March 25, 2024 – May 17, 2024

# **Biophysics 2023-24 Known Events**

	AUGUST			
Date	Event	Time	Room	Host
Thurs, Aug. 24	IBR Keynote & BBQ	4pm - 7pm	Bloomberg	
Fri, Aug. 25	IBR Retreat	8am - 5pm	Turner Concourse	
	SEPTEMBER			-
Fri, Sept. 1	PMB Student Seminar: Andrea Ori	1pm - 2:30pm	Mudd 100	Karen
Mon, Sept. 4	Labor Day Holiday			
Fri, Sept. 8	Bowman Lab Happy Hour	5pm	Cone Patio	Bowman Lab
Mon, Sept. 11	BPH Seminar: Terry Hwa, UC San Diego	12pm - 1pm	Merg 111	Yaojun
Mon, Sept. 18	BPH Seminar: Suri Vaikuntanathan, Univ. of Chicago	12pm - 1pm	Merg 111	Maggie
	OCTOBER			
Date	Event	Time	Room	Host
Fri, Oct 6	PMB Student Seminar: Marie Pearce	12pm - 1:30pm	Mudd 100	Vince Hilser
Mon, Oct 9	Chalk It Up (tentatively)			n/a
Fri, Oct 14	PMB Student Seminar: Iryna Chelepis	12pm-1:30pm	Mudd 100	Greg
Fri, Oct 14	Jenkins Happy Hour	4pm - 6pm		
Fri, Oct 20	3rd Year Seminar: Jimin Kang	12pm - 1pm	VIRTUAL	
Mon, Oct 23	BPH Seminar: Justin Taraska, NIH	12:15pm - 1:15pm	Merg 111	Maggie
Fri, Oct 27	3rd Year Seminar: Jingzhou Hao	12pm - 1pm	VIRTUAL	
Mon, Oct 30	BPH Seminar: Jebrell Glover, Lehigh University	12:15pm - 1:15pm	Merg 111	Karen
	NOVEMBER			
Date	Event	Time	Room	Host
Mon, Nov 6	BPH Seminar: Wade Winkler, UMD	12:15pm - 1:15pm	Merg 111	Sarah
Mon, Nov 13	BPH Seminar: Tony Mittermaier, McGill University	12:15pm - 1:15pm	Merg 111	Doug
	Thanksgiving Potluck Party			
Nov 20-24	Thanksgiving Break			
Tues, Nov 28	Chalk-it-Up to Biophysics - Brian Camley	11am - 12pm	WBSB Auditorium	Karen
DECEMBER				
Date	Event	Time	Room	Host
Fri, Dec 8	Barrick Lab Happy Hour	4pm-6pm	Jenkins 107	
Dec 11-12	Tentative faculty interviews/chalk talk			
Fri, Dec. 15	BPH/SOM Holiday Party	5pm - 8pm	Levering Glass Pavilion	
Dec 25-29	Winter Break			

JANUARY				
Date	Event	Time	Room	Host
Jan 18 - 21	PMB Recruitment Weekend			
	FEBRUARY			
Date	Event	Time	Room	Host
Feb 10-14	BPS - Philadelphia			
Feb 15-17	Jenkins Recruitment Weekend			
MARCH				
Date	Event	Time	Room	Host
Mon, March 11	BPH Seminar: Dr. Gabriel Rocklin	12pm-1pm		
APRIL				
Date	Event	Time	Room	Host
Wed, April 24	Kossiakof Lecture: Dr. Xiaowei Zhuang, Harvard University			
MAY				
Date	Event	Time	Room	Host
Mon, May 6	Carlson Lecture: Dr. Josh Wand/Texas A&M University	4pm		

#### Jenkins Biophysics Program August 2023

# Study Guide for the 1<sup>st</sup> Year Proficiency Review

All first-year students in the Jenkins Biophysics Program will participate in an oral proficiency review in May of their first year. The goals of this exercise are to identify deficiencies, to select courses that will remedy these deficiencies, and to give the student experience in an oral examination setting. With this format, we can tailor course selection to each individual student, providing each student with the broad knowledge base needed for research in biophysics, and for preparation for the GBO.

# The proficiency review for Jenkins students will focus primarily on the topics listed in Section A (Biochemistry & Cell, Developmental, and Molecular Biology)

Students should make sure that they have an adequate background in sections B and C (general and organic chemistry). Although neither the first-year proficiency exam nor the GBO will cover these topics directly, students will need familiarity with these areas of chemistry to succeed in their coursework and their thesis work in biophysics.

This list of topics is broad, and may appear to be daunting. We emphasize that we are not looking for specific details, but rather a general overview, and an ability to think about problems in these fields. It is also emphasized that this review process is not an examination which one can fail; rather, if a lack of knowledge in one or more of these areas is apparent, courses will be taken to give the student the needed material.

It is suggested that students buy the textbook <u>Essential Cell Biology</u> (Alberts et al.) and <u>slowly and</u> <u>systematically</u> review the material during the 1st year.

#### A. Biochemistry & Cell, Developmental, and Molecular Biology

- cell structure: prokaryotes vs eukaryotes. Archaea
- organelles: structure and function
- cell division
- cell-cell interactions, tissues
- nucleic acid and chromosome structures
- DNA synthesis & repair, recombination, mutation
- rudiments of genetics
- recombinant DNA & genetic engineering
- coenzymes and vitamins, carbohydrates, glycoconjugates, nucleotides, lipids, membranes, proteins, amino acids, nucleic acids
- enzymes: kinetics, specificity, allosteric regulation, mechanisms of enzyme action (kinetics and mechanisms will be covered in coursework)
- ATP and energy-rich compounds
- intermediary metabolism: glycolysis, tricarboxylic acid cycle, electron transport and oxidative phosphorylation, gluconeogenesis, glycogen, fatty acid biosynthesis
- nitrogen fixation, photosynthesis
- transcription, RNA processing
- regulation of gene expression, operons, phage lambda
- genetic code
- protein synthesis, degradation and modification
- viruses
- cytoskeleton and muscle contraction

- membrane transport (including traffic of proteins across membranes)
- signal transduction, hormone action, sensory transduction
- excitable membranes, neurotransmission, ion channels
- immune system, antibody diversity, structures
- chemotaxis
- biology of cancer
- supramolecular structures- ribosomes, replication forks, membrane bound complexes
- molecular evolution
- "genomics" as a way of tying a lot of this together
- B. General Chemistry (any general chemistry textbook)
  - stoichiometry, mole concept, chemical equations, atomic weights, molecular formulas
  - general properties of gases, solids, liquids and solutions
  - intro to chemical equilibrium, acids and bases, buffers, ionization equilibria, acid base titration, electrochemistry, REDOX, solubility
  - electronic structure of atoms, the periodic table, general properties of the elements
  - chemical bonds
  - molecular orbitals
  - water, pH
- C. Organic Chemistry (any organic chemistry textbook)
  - nomenclature, types of compounds
  - electron movement, resonance, tautomerism, aromaticity
  - types of bonds, shape of molecules, symmetry, asymmetry, chirality, optical activity
  - chemical reactivity: acids, bases, resonance, inductive effect, steric effects, hydrogen bonds, Lewis acids and bases
  - organic reactions: nucleophilic substitutions, additions, eliminations, electrophilic substitution, radicals
  - rudiments of physical organic chemistry: valence bond/resonance theory, HMO theory, conformational analysis, reaction rates (transition state theory), molecular mechanics, isotope effects

# THOMAS C. JENKINS GRADUATE PROGRAM IN BIOPHYSICS

Last Updated: September 18, 2023

# 2023 – 2024 Student Handbook

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We are excited to have you joining a remarkably strong group of students and become part of the Biophysics Department here at Johns Hopkins. Our mission is to do great science and cultivate great scientists.

This Handbook describes requirements and expectations of our program. Our Program aims to strengthen your foundation in biophysical and biochemical techniques and principles. Combined with hard work and perseverance, your engagement in graduate school will positively shape your trajectory in science. We look forward to working with you and sharing in the beauty and thrill of discovery.

# **BIOPHYSICS GRADUATE STUDENT MILESTONES BY YEAR**

I LAK ONE			
FALL SEMESTER			
Schoolwide Orientation (online on Canvas)			
Library Orientation	Aug 18		
Schoolwide Orientation BBQ/Welcome Bag Pick Up	Aug 18		
Program Orientation	Aug 24		
Institute for Biophysical Research Retreat	Aug 24 – 25		
Online Safety Course (MyLearning)	Aug 24 – 27		
Online "Avoiding Plagiarism" Course (MyLearning)	Aug 24 – 27		
AS.250.649 - Introduction to Computing in Biology	Aug 28 – Oct 6		
AS.250.622 - Statistics and Data Analysis	0ct 9 – 0ct 13		
AS.250.640 - How to be an Effective STEM JEDI	Aug 28 – Dec 8		
AS.250.685 - Proteins & Nucleic Acids	Aug 28 – Dec 8 (Final exam TBA)		
AS.250.601 - Biophysics Seminar	Aug 28 – Dec 8		
AS.250.821 - Teaching Assistantship	Aug 28 – Dec 8		
Chalk It Up – Brian Camley (On SOM Campus)	Nov 28		
Student Evening Series	Sep – Dec		
INTERSESS	SION		
AS.250.625 - Single Molecule Measurements	Jan 8 – Jan 12		
SPRING SEMESTER			
AS.250.689 - Physical Chem of Bio Macro	Jan 22 – Apr 26 (Final exam TBA)		

Jan 22 – Apr 26

Jan 22 – Apr 26

Jan 22 – Mar 15 (rotation talks Mar 15)

#### **YEAR ONE**

Jenkins Biophysics Ph.D. Student Handbook

AS.250.601 - Biophysics Seminar

AS.250.821 - Teaching Assistantship

AS.250.820 (02) - Laboratory Rotation

AS.250.820 (03) - Laboratory Rotation **Student Evening Series** Join Thesis Laboratory Practice GBO Exam

Mar 25 - May 17 (rotation talks on May 17) Jan – May May 20 May 27 – 31

#### **SUMMER**

AS.250.620 - Optical Spectroscopy AS.250.624 - NMR Spectroscopy AS.250.623 - Macromolecular Simulation AS.250.621 - Cryo-EM Module AS.360.625 - Responsible Conduct of Research AS.250.801 - Dissertation Research

Jun 3 – Jun 5, Jun 10 – Jun 14 Jun 17 – Jun 21 Jun 24 – Jun 28 TBA July 12 – 26 (Tentatively) May 20 – Aug 14

#### **YEAR TWO**

#### FALL SEMESTER

AS.250.601 - Biophysics Seminar	Aug – Dec
AS.250.801 - Dissertation Research	Aug – Dec
AS.250.821 - Teaching Assistantship	Aug – Dec
XX.XXX.XXX - Elective*	Aug – Dec*
Student Evening Series	Sept – Dec

\*Elective course can be taken in either the Fall or Spring semester of Year 2

#### SPRING SEMESTER

AS.250.801 - Dissertation Research	Jan – May
AS.250.601 - Biophysics Seminar	Jan – May
AS.250.615 - Biophysics Writing Workshop	Jan – May
AS.250.610 - Savvy Science Seminars	Jan – May
AS.250.821 - Teaching Assistantship	Jan – May
XX.XXX.XXX - Elective*	Jan – May*
RCR Refresher Workshop	April
Student Evening Series	Jan – May
Graduate Board Oral Examination	April 8-19

\*Elective course can be taken in either the Fall or Spring semester of Year 2

# SUMMER

AS.250.801 - Dissertation Research Savvy Seminar Practice Seminars

May – Aug TBA

#### YEAR THREE

# FALL SEMESTER

AS.250.601 - Biophysics Seminar	Aug – Dec
AS.250.801 - Dissertation Research	Aug – Dec
Thesis Proposal Practice Talk*	Oct – Dec
Thesis Proposal Seminar	Nov – Dec
Student Evening Series	Sep – Dec

\*Practice talk should be scheduled for student evening series, at least 1 week prior to the seminar.

SPRIN	IG SEMESTER	
AS.250.801 - Dissertation Research	Jan – May	
AS.250.601 - Biophysics Seminar	Jan – May	
RCR Refresher Workshop	April	
Student Evening Series	Jan – May	
5	SUMMER	
AS.250.801 - Dissertation Research	May – Aug	
YE	AR FOUR	
FAL	L SEMESTER	
AS.250.601 - Biophysics Seminar	Aug – Dec	
AS.250.801 - Dissertation Research	Aug – Dec	
Thesis Advisory Committee Meeting	Oct – Dec	
Student Evening Series	Sep – Dec	
SPRIN	IG SEMESTER	
AS.250.801 - Dissertation Research	Jan – May	
AS.250.601 - Biophysics Seminar	Jan – May	
RCR Refresher Workshop	April	
Student Evening Series	Jan – May	
5	SUMMER	
AS.250.801 - Dissertation Research	May – Aug	

FALL SEMESTER
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AS 250 601 - Bionhysics Seminar	Aug – Dec
AS 250.001 Dispertation Descent	Aug Dec
AS.250.801 - DISSertation Research	Aug – Dec
Thesis Advisory Committee Meeting	Oct – Dec
Student Evening Series	Sep – Dec

#### SPRING SEMESTER

AS.250.801 - Dissertation Research	Jan – May
AS.250.601 - Biophysics Seminar	Jan – May
RCR Refresher Workshop	April
Thesis Advisory Committee Meeting	Apr – May
Student Evening Series	Jan – May

#### FINAL ITEMS FOR CONFERRAL

Private thesis defense to thesis committee Submission of final dissertation to library via ETD Thesis Seminar (after submission of corrected thesis to ETD)

# OVERVIEW AND GENERAL EXPECTATIONS

In their first year, students are expected to dedicate their time to the three main program activities: coursework, rotation laboratory work, and teaching. The program is structured such that students complete two core courses, Introduction to Computing (September only) and Proteins and Nucleic Acids, in their First-Year Fall semester, and a third core course, Physical Chemistry of Macromolecules, in their First-Year Spring. The fourth "core course", is actually made up of a collection of week-long mini-courses, or Modules, that take place across the first year. The Biophysics Modules cover topics including Statistics, Optical Spectroscopy, NMR Spectroscopy, Cryogenic Electron Microscopy, Single Molecule Measurements, and Macromolecular Simulation.

All Jenkins students serve as Teaching Assistants (TAs) for the Fall and Spring semesters of their first two years. Students need to master the material for the course for which they are TA, so that they can grade assignments and provide useful feedback to undergraduates. We expect all Jenkins students to strive to be outstanding TAs.

In the Spring semester of their first year, each student will take part in two 8-week laboratory rotations, where they will work on a project in the lab group of a Jenkins faculty member. The goal of the rotation is to find the best fit for carrying out thesis research. The most important decision made during the first year is the choice of a Thesis Advisor, so attention to rotation work is particularly important.

At the end of the Spring semester of their first year, each student will have complete a Practice Graduate Board Oral (GBO) exam. This practice exam is not graded (there is no pass or fail), and is given so that students can experience what an oral examination is like. The intent of this practice is to help the students gauge how to prepare for the required GBO exam that all students must pass at the end of their second year to continue in the program.

The first summer (between first and second years) is normally devoted entirely to thesis research. If the two Spring rotations are insufficient for finding a Thesis Advisor, a third rotation during the summer is allowed, with the requirement that each student joins a group before the start of their second year (August).

In May of their second year, each student will take their official GBO exam. This is an oral exam, given by five faculty members. Successful completion of the GBO is required for obtaining a Ph.D. at Johns Hopkins University. Students who do not pass their GBO exam may be given a second chance to retake the exam, at the discretion of the exam committee.

In the Fall semester of the third year, each student will give a formal, 25 min presentation of their thesis work. This presentation should clearly describe the key questions being pursued, as well as preliminary data and immediate plans for future work. This public seminar will be followed by a private thesis review with the advisor and two other faculty members.

In addition to program-specific expectations, Johns Hopkins University has defined a set of responsibilities that all graduate students are expected to adhere to. These responsibilities, as well as rights given to all graduate students, are described in detail here:

https://e-catalogue.jhu.edu/ksas-wse/graduate-policies/

The following courses are required of all Jenkins students:

- Mandatory Online Safety Course (MyLearning)
- Mandatory Responsible Conduct of Research Course (Bosch)
- AS.250.601 Biophysics Seminar (Woodson)
- AS.250.620 Optical Spectroscopy (Lecomte & Tripp)
- AS.250.621 Cryo-EM Module (*Bailey/Twomey*)
- AS.250.622 Statistics and Data (Barrick)
- AS.250.623 Macromolecular Simulation (Lau)
- AS.250.624 NMR Spectroscopy (*Majumdar*)
- AS.250.625 Single Molecule Measurements (*Xiao/Wu*)
- AS.250.689 Physical Chem of Biological Macromolecules (García-Moreno)
- AS.250.685 Proteins & Nucleic Acids (Woodson/Bowman)
- AS.250.649 Introduction to Computing in Biology (Bowman)
- AS.250.820 Laboratory Rotation (Staff)
- AS.250.821 Teaching Assistantship (Bowman)
- XX.XXX.XXX Elective Course\*

\*Graduate-level science-based course, chosen by the student and approved by the student's Thesis Advisor and the DGS

All students are expected to attend every lecture and turn in assignments on time. Failure to attend classes could result in a grade of F for the course or a probation period.

# POLICY ON GRADES

The goal of our courses is to help students establish and reinforce the core concepts of biophysics, which are essential for independent research. Grades are a straight-forward metric for demonstrating that you understand and can apply the material learned in classes. We therefore have these policies on grades:

- Students must receive a grade of B- or higher in all required courses. Students must repeat any course in which they receive a grade below B-.
- Failure to receive a grade of B- or higher in two required courses is grounds for termination from the program.
- Failure to receive a grade of B- or higher in a required course a second time is grounds for termination from the program.

Each semester, students must keep a grade point average of 3.0 (B) or above. Falling below a 3.0 GPA for one semester is grounds for a warning. Falling a 3.0 GPA for two semesters is grounds for termination from the program (see Probation and Dismissal from the Program, below).

This requirement is not intended to discourage students from taking advanced courses in other disciplines, such as chemistry, physics or mathematics. Please discuss the possibility of taking courses outside your expertise with the Academic Advisors.

Students are expected to know and abide by University policies governing student conduct and academic integrity. Those who impair the University's mission are subject to expulsion.

• Academic Integrity: In all aspects of their work, students assume an obligation to conduct themselves in a manner appropriate to the Johns Hopkins University's mission as an institution of higher education. A student must refrain from acts that he or she knows, or under the circumstances has reason to know, may impair the academic integrity of the University. Violations of academic integrity include, but are not limited to: cheating, plagiarism; submitting as one's own the same or substantially similar work of another; knowingly furnishing false information to any agent of the University for inclusion in the academic records; dishonesty in discharging teaching assistant duties; falsification; forgery. Violations of academic integrity are taken seriously and may be grounds for dismissal from the program.

You can find the KSAS and WSE Graduate <u>Academic Misconduct Policy here</u>. Additionally, you can find the <u>University Research Integrity Policy here</u>.

• **Student Conduct:** The University expects all students to respect the rights of others, and to refrain from behavior that impairs the University's mission of teaching, research/scholarship, and outreach to the local, national, and international community. Violations of appropriate student conduct may include, but are not limited to: harassment behavior (physical or verbal); intimidation or verbal abuse; actions that are a danger to one's own personal safety or that may harm others, and actions that destroy, impair, or wrongfully appropriate property. Inappropriate behavior will not be tolerated and may result in dismissal from the program.

The procedures for handling various allegations of misconduct, academic or otherwise, by full-time and part-time JHU Homewood Graduate Students can be found here: <u>Graduate Student Policies</u>.

# TEACHING ASSISTANTSHIP REQUIREMENTS

As part of your training, you will serve as a teaching assistant (TA) during the Fall and Spring semesters of your first two years in the program. Science requires constant learning, and central component of demonstrating mastery of a topic is the ability to convey the information to others. As such, serving as a TA gives our students the opportunity to develop teaching and communication skills while also solidifying their own scientific understanding.

The Program Director will assign each Jenkins student to TA for an undergraduate-level course offered by the Biophysics Department. Courses available for TA-ships include AS.250.205 - Introduction to Computing and AS.250.253 - Protein Engineering and Biochemistry Lab.

Students are expected to attend the lectures/laboratory sessions of the courses for which they TA. In addition, duties include grading weekly assignments and exams, in-class help for undergraduate students, holding weekly office hours to review class material, assisting with course logistics, and other activities to assist the lead instructors.

# LABORATORY ROTATIONS

Rather than successful completion of a particular project, the primary intent of a rotation is to give students experience within a specific research setting and to get a feel for a laboratory. Each

student is required to complete two 8-week laboratory rotations in the Spring of their first year. Without exception, these rotations must be completed in Jenkins faculty laboratories!

At the end of each rotation period, students will present a 10-minute talk in front of the Rotation Advisors and other 1<sup>st</sup>-year students. All other biophysics faculty and students are invited to attend. The two Spring 2023 rotations are scheduled for Jan 22 – Mar 15, with the first rotation talks taking place on March 15, and Mar 25 – May 17, with the second rotation talks taking place on May 17.

Students are expected to choose a laboratory and begin their thesis research immediately following the completion of their second rotation. Students may elect to do a third rotation, but must receive approval from the Program Director to do so.

Occasionally, incoming students spend part of the summer before their first year working in the laboratory of a faculty member. In such cases, students are permitted to do one of their rotations in this same laboratory during the Spring Semester.

#### **ROTATION EVALUATIONS**

At the end of each rotation, the Rotation Advisor will be asked to complete a form evaluating the student's effort, interest, comprehension, and skill. This form will become part of the student's departmental academic file. The <u>Rotation Evaluation Form</u> is linked here.

It is expected that students will work diligently during each rotation, regardless of their choice of thesis laboratory. An evaluation with unsatisfactory rankings is grounds for a warning letter, and a second rotation with unsatisfactory rankings is potentially grounds for dismissal (see Probation and Dismissal from the Program, below).

# **RESPONSIBLE CONDUCT OF RESEARCH**

The University mandates that all graduate students receive training in the responsible conduct of research (RCR). In the Summer Semester of their first year, Jenkins students are required to take AS.360.625 - Responsible Conduct of Research, offered on the Homewood campus.

Additionally, all Jenkins students beyond their first year are **required** attend an annual RCR refresher session, organized by the Program in Molecular Biophysics (PMB). This session typically takes place in April.

Failure to attend this **mandatory** refresher session may be grounds for academic probation.

# PARTICIPATION IN SCIENTIFIC MEETINGS

Each year, the Institute for Biophysical Research (IBR) sponsors a local meeting that brings together IBR laboratories from departments throughout the Schools of Arts & Sciences, Engineering, Medicine, and Public Health. Both platform presentations and a poster session are scheduled. The retreat gives faculty and students within the Institute the opportunity to hear about current research in other laboratories. Attendance is **required** for all Jenkins students. Postdoctoral fellows are strongly encouraged to attend as well.

There are many other regional and national/international scientific meetings on a wide range of topics. Students are encouraged to discuss opportunities to participate in relevant meetings with their mentors. Conditions for participation vary from laboratory to laboratory and generally depend on availability of research funds.

#### FACULTY RESEARCH INTERESTS

It is important that students have an opportunity to learn about faculty's research interests before committing to a lab for rotation. All students are encouraged to contact faculty about research interests. Program faculty are always happy to talk to interested students individually about their work. Additionally, in the Fall Semester, the Jenkins Biophysics faculty hold an annual presentation to the new first year students to give them a full picture of the research taking place in T.C. Jenkins laboratories and a chance to think about rotation possibilities.

# SEMINAR SERIES

Attending seminars, both in the area of biophysics and in other areas, is an essential part of the educational process for students. During their *entire* tenure in the program, students are required to attend the following:

- All named lectures and seminars.
- *AS.250.601 Biophysics Seminar -* The required course *Biophysics Seminar* comprises the Thomas C. Jenkins Department of Biophysics seminar series. These seminars are held on Mondays at noon. Jenkins students are require to register for this course every semester and attend all seminars.
- *Chalk it up to Biophysics* seminars are held four to five times per year, as part of the Jenkins Department of Biophysics seminar series and as part of the Department of Biophysics & Biophysical Chemistry Series. They are presented by faculty from many biophysics-related departments and emphasize the conceptual basis behind the work of an individual laboratory. Students past their second year are expected to attend. Attendance is mandatory for first- and second-year students.

Repeated absences from any of the above will result in a failing grade for the seminar course.

Students are also encouraged to attend:

- *Biophysics Student Evening Series* This student-led event is a monthly meeting where students get experience and feedback presenting their research in front of others. It is a friendly environment where students help each other with public speaking and presentation of ideas.
- Other departmental seminars on the Homewood campus and Medical School campuses that may be of interest. These include the departments of Biology (Homewood, Thursdays 4pm), Chemical and Biomolecular Engineering (Homewood, Thursdays 10:30am), Biophysics and Biophysical Chemistry (School of Medicine, Wednesdays 1:30pm), Mechanical Engineering (Homewood, Thursdays 3pm), and Chemistry (Homewood, Tuesdays 4:15pm).

• **Oral exam requirements:** The Graduate Board of Johns Hopkins University requires all Ph.D. programs to administer an oral examination to their students. For Jenkins students this examination is a preliminary one, to be taken in towards the end of the second year.

The Program Director will compose the GBO examining committee for each student. The committee will consist of five primary members, and two alternates. The Graduate Board requires that two members of the examining committee and one alternate be from outside the student's department.

The student's Faculty Advisor cannot be a member of the examining committee and cannot be present during the examination. The advisor will be asked to lead a brief discussion about the student to the examining committee prior to the examination without the student present.

• **Scope of the exam:** Although the committee may ask for a brief description of the student's project, students are *not* expected to make a formal thesis presentation at their preliminary oral examination. Instead, this exam is designed to test the breadth and depth of the student's knowledge and reasoning abilities.

• **Setting up the oral exam:** Students will be notified of when they are scheduled to appear by the Academic Program Administrator.

• **Outcome of the oral exam:** The Graduate Board requires that the GBO examining committee report the results of the examination in written form. The reporting form allows for a "pass", "conditional pass", or "fail." An option to retake may also be offered, at the discretion of the committee. If the decision is a "conditional pass," the conditions (nature of the work, deadline, etc.) will be stipulated by the committee at the end of the examination.

# LEAVE OF ABSENCE

Graduate students may apply for a leave of absence when medical conditions, compulsory military service, or personal or family hardship prevent them from continuing their graduate studies. Financial difficulty alone does not warrant a leave. The leave of absence may extend for up to four semesters (not including the summer term).

To apply for a leave of absence, students must inform the Program Director and Program Administrator of their specific situation in writing, and fill out a Leave of Absence (LOA) form found on the Graduate Board website:

# https://homewoodgrad.jhu.edu/academics/graduate-board/enrollment-status-change-forms/

Students must provide the proper documentation for their given situation:

- Medical Condition: a letter from a physician (this may be a letter from a doctor at the Student Health and Wellness Center), the Counseling Center or the Office of Student Disability Services
- Military Duty: a letter or verification from the Armed Forces
- Personal or Family Hardship: a letter from the applicant explaining the hardship

A leave of absence will be granted for a specific period of time, not to exceed a total of two years. When approved for a leave of absence, the Chair of the Homewood Graduate Board will notify the student. During the leave period, a student may not be enrolled at another university. Before applying for leave, students should consult their department for information regarding funding for when they return from their LOA. Prior to requesting the LOA, it is also highly recommended that the student contact the Health Insurance Coordinator in the Registrar's Office for information on how the LOA will affect their health insurance coverage. When on an approved LOA there is no tuition charge; the period of leave is simply regarded as an interruption of the degree program.

#### The regular stipend will be suspended while the student is on leave.

In addition, a student on leave is not to make use of any University services or facilities (e.g., counseling center, health center, library, athletic facilities, etc.). A student on a leave of absence who wishes to continue working at the University is not eligible to be paid through the Student Payroll Office. Therefore, he or she must be hired through the Human Resources division of the department employing them. No exceptions can be made.

The Program Director may decline to approve a student's request for a leave of absence, in which case the student may appeal directly to the Graduate Board or the Dean of Graduate Education.

# RETURNING FROM LEAVE OF ABSENCE

Return from a leave of absence can only occur at the start of an academic period. For example, if a student takes a leave of absence just a few weeks into the Fall semester, they cannot be reinstated again until the start of the Spring term. When returning from leave of absence, a graduate student must complete and submit the Application to Return from Leave of Absence before registering for classes. The form must be accompanied by a letter (from one of the sources below) for their given situation that explains what progress has taken place in the student's absence that would enable him/her to be successful upon return.

- **Medical Condition:** a letter from a physician (including the Student Health and Wellness Center), the Counseling Center or Office of Student Disability Services
- Military Duty: a letter or verification from the Armed Forces
- **Personal or Family Hardship:** a personal letter

Any additional letters of support (e.g. from an advisor, department chair, etc.) are welcome. When approved for returning from a leave of absence, the Chair of the Homewood Graduate Board will notify the student.

# PROBATION AND DISMISSAL FROM THE PROGRAM

The program Director and Jenkins faculty will make every effort to help a student who is performing poorly. However, if a student's performance remains unsatisfactory, the Director or thesis review committee will take the following actions:

The student will receive a letter of warning and be placed on probation.

If the student's performance does not improve, they will receive a second letter stating a fixed date of termination from the program.

Before a student is terminated from the program, the Jenkins Faculty will be consulted to review the grounds for dismissal.

Unsatisfactory performance includes both coursework grades that are below expectations and unsatisfactory rotation evaluations (see Policy on Grades and Rotation Evaluations, above). In addition, if no mutually agreeable arrangements for thesis research between a faculty member and a student have been made by the end of July in the first year, the Director will consult with the Jenkins Faculty as to whether the student should be permitted to continue looking for an advisor or asked to leave the program.

# THESIS ADVISOR

Students are expected to choose a Thesis Advisor from among the Jenkins faculty at the conclusion of their second rotation. This is a critical choice for both the student and advisor, and should be made with care. If a mutually agreed upon match is not found between a student and advisor after the second rotation, on a case-by-case basis, the Director may authorize a third rotation (see Program Requirements). Faculty are not required to accept all students interested in their laboratories.

# THESIS REVIEWS

Starting the Summer Semester between their first and second year in the program, students are expected to spend a significant amount of time in the laboratory conducting research. This expectation is set to help students start to establish the foundations of their thesis topic. These foundations are built upon throughout the student's second year, and in the Fall semester of their third year, student's present their thesis work for review for the first time. Starting in that third year, students should expect to have an official Thesis Review each year in the fall. However, the format of that first thesis review, in the third year, is different than those in year four and beyond.

# **3RD YEAR SEMINAR & THESIS REVIEW**

The first review of a student's research progress typically takes place in the Fall semester of their third year. This third year review begins with each student giving a formal 25 min seminar, referred to as the 3<sup>rd</sup> Year Thesis Proposal Seminar. This seminar, which is delivered in a public forum, provides the context, background, and rationale for their thesis work. It also gives the student an opportunity to discuss their preliminary results. Immediately following the public presentation, the student will then have their first Thesis Review. It will be a private review in which the student's review committee will ask questions based on the data and background presented in the seminar. Additionally, as a part of this first Thesis Review, students will also submit a six-page research proposal to their review committee.

In the Spring of their second year, students take two courses in particular to help prepare them for the rigors of the 3rd Year Seminar & Thesis Review. These courses, Savvy Science Seminars (250.610) and Biophysics Writing Workshop (250.615), explicitly guide students through the seminar presentation and proposal writing aspects of the review.

In Savvy Science Seminars, students learn how to give effective oral presentations to prepare for seminar presentation portion of the review. Students prepare and give practice talks to their peers, and receive feedback on how to improve their presentation style. In Biophysics Writing Workshop, students receive guidance on how to formulate their research proposals. They write an initial draft of the proposal and receive direct critique on areas of improvement.

During the Summer and Fall that follow these two courses, students are expected to continue working on and refining their seminar presentations and research proposals with guidance from their peers and advisors. Through this preparation, students are able to have fully formulated ideas and experimental plans by the time of their 3<sup>rd</sup> Year Thesis Review.

#### ANNUAL THESIS REVIEWS

**From their 4**<sup>th</sup> **year through the completion of their program, students are required to have an annual thesis review each fall semester**. The thesis committee will consist of the student's Thesis Advisor plus two additional faculty members. The additional faculty will be selected by the advisor and the student. These annual thesis reviews, beginning in year four, will be ~50 minutes, and consist of a 15-minute presentation followed by a 35-minute question and answer period. For these reviews, students must provide a <u>one-page research summary</u> to the Academic Program Administrator at least one week in advance, to distribute to the committee members.

For each thesis review, the committee chair will write the student a letter summarizing the committee discussion and any recommendations or requirements. The Thesis Review Committee can require that a student provide periodic written reports or have an additional thesis review during the year.

Prior to the fourth-year review and each following year, students must complete the following:

- <u>myIDP</u>: This is a self-reflective Individualized Development Plan, designed to help you think about what professional skills and expertise you'd like to work on improving.
- Jenkins Student-Thesis Advisor Report: This is a form you will fill out reflecting on how your research has progressed since your last meeting, where you'd like it to go, and where you hope it will take you professionally.

Once you have completed both of these forms, email them to your Thesis Advisor and set a time to meet with them. By the time of the meeting, they should have completed the 'Advisor Feedback' portion of Student–Advisor Report. Discuss the feedback with them and sign the form to confirm the meeting has taken place. **Send the signed form to the Academic Program Advisor, and inform them of the date of your upcoming Thesis Review.** 

All students enrolled in the program must have a yearly thesis review unless the advisor, student, and thesis committee chair all agree it is not necessary. In general, the circumstance in which a thesis committee meeting is not necessary will occur when (i) the student has completed all work to be included in the thesis, (ii) the student is actively writing the thesis, (iii) the Thesis Review Committee had previously indicated the student was likely to graduate within one year. The Thesis Review Committee and student will agree on an outline of the thesis.

Beginning at 5.5 years, thesis reviews will be required every 6 months for students who have no clear plan for finishing the requirements for their degree. The Thesis Review Committee can make exceptions to this requirement. Writing of the dissertation is monitored by the advisor.

# FINAL ORAL EXAMINATION AND THESIS REQUIREMENT

The final oral examination committee must consist of five (5) faculty members and one (1) alternate. The committee should be composed of:

- The student's Thesis Review Committee, for continuity (3 members)
- Two additional faculty (2 members)
- One alternate (1 alternate)

Members of the committee must appear on the list of faculty approved to serve on GBO committees by the Homewood Graduate Board.

To ensure balance, the committee composition must be approved by the Program Director. The Program Director will choose the committee chair. Once the committee is approved and the advisor agrees that the thesis is ready to be distributed, the student may schedule the exam.

# It is the student's responsibility to contact the faculty members on the exam committee and to schedule the date, time and place of the exam.

#### <u>Students who have scheduled their defense must provide the information to the Academic</u> <u>Program Administrator as soon as available.</u>

All five committee members and the alternate should receive a copy of the dissertation two weeks prior to the exam.

The final oral exam serves three purposes:

- To evaluate the quality of the dissertation (if approved, the 1<sup>st</sup> and 2<sup>nd</sup> readers would sign a letter of acceptance addressed to the Graduate Board at this time);
- To determine that the student's knowledge in the immediate scientific area of his/her dissertation is sufficient; and
- To authorize the student to go forward with presenting the thesis seminar.

If the exam committee concludes that the student's knowledge is insufficient or the dissertation needs additional work, the student can be asked to return for a re-examination. The student's final exam committee has the authority to ask for substantial changes in the thesis.

The student should be prepared to make a presentation during the final oral exam which highlights the major findings of the dissertation, approximately 40–50 minutes in length. The presentation should not be the same as the one-hour thesis seminar (see below). The exam committee is expected to interrupt throughout the presentation to discuss various points and again, in this regard, the defense presentation differs from the public thesis seminar. These guidelines are not fixed – the committee chair and Thesis Advisor may determine a different format as long as they communicate the format to the student in advance. In general, this oral examination will last 2 hours.

It is the intention of the Jenkins Faculty that the examining faculty conduct a rigorous assessment of the student's scientific knowledge and evaluate the dissertation research in a substantive manner. Therefore, to allow time for any thesis revisions the committee may require, there is a mandatory one-month period between the final oral exam and the thesis seminar.

# THESIS APPROVAL

The final thesis must be approved, in a form specified by the Graduate Board, by two thesis readers, one of whom is normally the advisor. The student and advisor decide on the faculty member most suited to serve as 2<sup>nd</sup> reader. If the final oral examination committee approves the student's dissertation, the two readers will sign the letter accepting the thesis at that time. This letter is then submitted to the Graduate Board. There are many detailed requirements about the format and submission of the thesis. Guidelines are available from the library.

#### THESIS SEMINAR

After the student has passed the final oral exam and the readers' letter accepting the thesis has been submitted to the Graduate Board, the student is required to present a seminar on the work contained in it. The seminar will be scheduled after the thesis has been approved and announced by the department granting the degree. The thesis seminar should be scheduled at a time when a majority of the faculty from the oral examination committee can be present.

#### **GRANTING OF DEGREE**

The Chair of the T. C. Jenkins Department of Biophysics will consider that a student has fulfilled the requirements for the Ph.D. and sign the Certificate of Completion granting the degree only after the following conditions have been met:

- The first requirement is that the student has passed the final oral examination. (Note: This examination is a program requirement, not a Graduate Board requirement. Each student satisfies the Graduate Board Oral requirement by passing the preliminary oral exam taken at the end of the second year.)
- The second requirement is the submission to the Graduate Board of an approval letter signed by two readers accepting the thesis as partial fulfillment of the requirements for the Ph.D.
- The third requirement is the submission of the student's final thesis to the MSEL in time to meet the Graduate Board deadline.
- The fourth requirement is the presentation of the student's thesis seminar.

#### ADMINISTRATIVE STRUCTURE

Dr. Gregory Bowman is the Director of the T.C. Jenkins Graduate Program in Biophysics. Policy questions and serious issues concerning the status of individual students are addressed by the Director in consultation with the T.C. Jenkins Faculty.

# SCHOOL AND DEPARTMENTAL AFFILIATION

All students in the program are affiliated with the Thomas C. Jenkins Department of Biophysics in the Krieger School of Arts & Sciences on the Homewood Campus.

#### SUMMER REGISTRATION

In order to maintain full-time student status (for tax and undergraduate loan deferment purposes) students **must** register for research credits during the summer session (See "Summer" sections of <u>Biophysics Graduate Student Milestones by Year</u> above).

# FINANCIAL SUPPORT

Students in the program are supported either by teaching assistantships or research grants to the individual laboratory. Some back-up support mechanisms exist to cover financial emergencies for the Thesis Advisor. It is anticipated that financial support covering living costs and tuition will be made available to all accepted students throughout their education, provided that satisfactory progress towards the degree is being maintained.

#### EMPLOYMENT

Enrollment in the T.C. Jenkins Graduate Program in Biophysics is regarded as full-time employment. Additional employment of any kind is not permitted.

# UNIVERSITY COMPUTER POLICY

The University's policy for student use of shared information technology resources is available online. This policy has been officially adopted by the Schools of Arts & Sciences, Engineering, and Public Health. Similar criteria apply to **all** students affiliated with Hopkins graduate programs. Consult the following website for additional detail: Johns Hopkins Information Technology Policies

#### LEAVE

The T.C. Jenkins Graduate Program in Biophysics follows NIH policies for vacations, holidays, parental, and sick leave, as applied to trainees and fellows.

For Details, see section '11.2.13.1 Leave' of the NIH Grants Policy Statement

VACATIONS AND HOLIDAYS

Trainees and fellows may receive the same vacations and holidays available to individuals in comparable training positions at the grantee or sponsoring institution. Trainees and fellows shall continue to receive stipends during vacations and holidays.

# At academic institutions, the time between semesters or academic quarters is generally considered an active part of the training period.

In line with other programs, we interpret these rules to mean that students receive **10 days** of vacation each year, plus normal <u>University Holidays</u>, such as Thanksgiving. Vacation days in addition to these must be negotiated with the Faculty Advisor.

# SICK LEAVE

Trainees and fellows may continue to receive stipends for up to 15 calendar days of sick leave per year. Under exceptional circumstances, this period may be extended in response to a written request from the Student, acknowledged in writing by the Program Director. Sick leave may be used for medical conditions related to pregnancy and childbirth.

# PARENTAL LEAVE

Trainees and fellows may receive stipends for up to 60 calendar days (equivalent to 8 work weeks) of parental leave per year for each instance of adoption or the birth of a child. Either parent is eligible for parental leave. The use of parental leave must be approved by the training Program Director.

Students should notify their advisor in a timely manner when requiring sick leave and should provide medical documentation when appropriate. Students should also notify their advisors well in advance when planning parental leave.

# ACADEMIC ADVISING

All students are encouraged to discuss any questions about the program, academic problems, and other issues that may arise with the Academic Program Administrator, Brett Weinstein, or the Director of the Jenkins Graduate Program, Dr. Gregory Bowman.

During the first year of your program, the Academic Program Administrator, Brett Weinstein will officially be assigned as your Academic Advisor in JHU's Student Information System (SIS). After students match with a Research Advisor at the end of their first year, that individual will be assigned as the student's Academic Advisor in SIS. The Academic Program Administrator will also remain assigned to the student as an 'Other Advisor' in SIS to be able to assist as needed.

#### **PROGRAM DIRECTOR**

Dr. Gregory Bowman, Director Thomas C. Jenkins Department of Biophysics 302 Jenkins Hall School of Arts & Sciences phone: 410-516-7850 fax: 410-516-4118 email: gdbowman@jhu.edu

#### ACADEMIC PROGRAM ADMINISTRATOR

Brett Weinstein Thomas C. Jenkins Department of Biophysics 201 Jenkins Hall School of Arts & Sciences phone: 410-516-5197 fax: 410-516-4118 email: bweinstein@jhu.edu

#### DEPARTMENT ADMINISTRATOR

Jessica Appel Thomas C. Jenkins Department of Biophysics 101 Jenkins Hall School of Arts & Sciences phone: (410) 516-7243 fax: (410) 516-4118 email: jappel@jhu.edu

# KSAS GRADUATE & POSTDOCTORAL AFFAIRS OFFICES

The <u>KSAS The Graduate & Postdoctoral Affairs Offices</u> addresses the needs and concerns of KSAS graduate students and helps develop policy with the KSAS Dean's Office. Renee Eastwood is the KSAS Assistant Dean for Graduate and Postdoctoral Academic and Student Affairs, rseitz5@jhu.edu.

# GRADUATE REPRESENTATIVE ORGANIZATION (GRO)

The <u>Graduate Representative Organization</u> (GRO) is an organization that represents the Homewood graduate students. The GRO coordinates graduate student orientation, advocates for student concerns, organizes social events and sports tournaments, etc. Email: <u>GRO@jhu.edu</u>

# OFFICE OF INTERNATIONAL SERVICES

The <u>Office of International Services</u> (OIS) is a useful resource for non-US citizens. Their website provides advice for visas, legal and tax information, and links for getting adjusted to life in Baltimore.

# STUDENT HEALTH & WELLNESS CENTER

The <u>Student Health and Wellness Center</u> provides confidential health care to the Homewood campus community. The clinic is located at 1 East 31st Street, Suite N200. The health care staff consists of board certified/eligible physicians, nationally certified nurse practitioners, a licensed nurse, medical assistants/technologists, and a nurse mid-wife. The center is open Monday through Friday from 8:30 AM to 5:00 PM. During the academic year, it is also open on Saturdays from 9:00 AM to noon.

# COUNSELING CENTER

The <u>Counseling Center</u> at Homewood offers individual and group counseling, consultation and referral services, and help with career decision-making. Services are confidential and free of charge. The Counseling Center is located at 3003 N. Charles Street, Suite S200 and open Monday through Friday from 8:30 AM to 5:00 PM. 410-516-8278.

# How to Schedule an Appointment

<u>Eligible students</u> can call 410-516-8278 and press "2" to schedule a same-day Zoom Initial Consultation (IC). Click <u>here</u> for additional instructions or click <u>here</u> to learn more about our services.

#### **Crisis Information**

To reach the on-call counselor, call 410-516-8278 and press "1" at any time 24/7. For emergent needs, please contact JHU Public Safety at 410-516-4600 or the Behavioral Health Crisis and Support Team (BHCST) at 410-516-9355.

Johns Hopkins University is committed to promoting a safe and supportive environment for each and every member of our community. The website provides clear and consolidated information on sexual assault policies and available services and support in the event of an incident of sexual assault. See the following resources:

Sexual Misconduct Homepage

- <u>Get Confidential Help</u>
- <u>Sexual Misconduct Policy and Procedures ("SMPP")</u>
- <u>Sexual Misconduct FAQs</u>
- <u>Retaliation</u>

To file a sexual misconduct report, contact the Office of Institutional Equity at (410) 516-8075, email <u>oie@jhu.edu</u>, or submit an <u>online report</u> to OIE.

# OFFICE OF INSTITUTIONAL EQUITY

This <u>Office of Institutional Equity</u> oversees concerns relating to sexual harassment, discrimination/compliance, and disability services. Located in the Wyman Park Building, Suite 515.

General Inquiry E-mail: oie@jhu.edu

Disability Services and Accommodations E-mail: oiedisability@jhu.edu

# JHU LIFE DESIGN LAB: CAREER SERVICES

The JHU Life Design Lab serves all full-time students (freshmen through PhD candidates) on the Homewood Campus. The Assistant Director of Life Design for Graduate Programming is:

Heather Braun: hbraun4@jhu.edu

# CENTER FOR LANGUAGE EDUCATION

All students in the Jenkins Program are expected to be able to communicate in English, both verbally and through writing. Students for whom English is not their native language should take a three-week intensive course, ESL Workshop for International TAs, offered by the <u>Center for Language Education</u> at Johns Hopkins. Classes are held daily (Mon-Fri) from 9am-4pm, from the first week in August up to the start of regular classes. Students should arrive by late July or very early August to participate in this course.

Students that feel they still need more language help should also consider a <u>semester-long course</u> for improving English proficiency.

<u>Disclaimer</u>: **This is not a legal document.** This booklet presents current guidelines and practices for the Jenkins Biophysics Program. The Program Director and Faculty reserve the right to modify requirements, create new ones, and otherwise alter graduate program practices without advance notice.



# JHU Mentorship Commitments of Faculty Advisors and PhD Students

This document outlines mentoring expectations of faculty advisors and of PhD students at Johns Hopkins University. These expectations should be discussed together.

# Faculty advisors should commit to the following responsibilities:

Training:

- **The PhD advisor has the responsibility to mentor the PhD student.** This responsibility includes committing to the training of their PhD student, building on the PhD student's individual professional background and in support of their individual professional aspirations.
- The PhD advisor has the responsibility to participate in ongoing and regular meetings with their advisees to discuss academic and research progress. The advisor and student should agree on expected frequency of and preparation for meetings and use meetings to brainstorm ideas, troubleshoot challenges, and outline next steps. The advisor should identify a co-advisor/mentor should the primary advisor be unavailable for an extended period (sabbatical, leave, etc.).
- The PhD advisor has the responsibility to participate in a formal annual meeting with the student to discuss academic progress and next steps in the academic program. This responsibility includes helping to ensure that the document summarizing this annual discussion is completed and submitted in accordance with program requirements.
- The PhD advisor has the responsibility to encourage their advisees to reach out, as relevant, to additional co-advisors or informal mentors.
- The PhD advisor has the responsibility clarify the student's funding package and to clarify any work and/or teaching expectations associate with the package.
- The PhD advisor has the responsibility to contribute to a training environment that fosters independent, scholarly research, and professional growth.

# <u>Research</u>

- The PhD advisor has the responsibility to provide guidance in scholarly research. This responsibility includes helping to identify a workable research project and helping to set reasonable goals and timelines for research completion. The advisor should encourage the student to expand their skill sets and share ideas with others at Johns Hopkins and externally.
- **The PhD advisor has the responsibility to monitor research progress.** The advisor should encourage effective use of time. The advisor should meet regularly with the PhD student to hear updates on progress, results, and challenges in activities and research.

Professional development:

- The PhD advisor has the responsibility to discuss career development with the PhD student, including in any number of sectors of interest to the student. PhD advisors should assist in identifying resources to further the student's professional goals.
- The PhD advisor has the responsibility to participate in a formal annual meeting with the PhD student to discuss professional development goals. The advisor should help to ensure that the document summarizing this discussion is completed and submitted in accordance with program requirements.
- The PhD advisor has the responsibility to nominate the student for relevant professional opportunities and try to connect their advisees to relevant professional contacts and networks.
- The PhD advisor has the responsibility to allow time outside of research for student engagement in professional development activities including, for example, skill building workshops, professional conferences, additional research collaborations, or other informational sessions.

Respectful engagement and well-being:

- The PhD advisor has the responsibility to treat their advisees, other students, and colleagues with respect at all times.
- The PhD advisor has the responsibility to commit to being available to meet with the PhD student. The advisor and the student should agree on expected frequency of and preparation for meetings, and expected timeframe for responding to emails and for providing feedback on work products. The PhD advisor should give their full attention during meetings and should reach out to PhD students who are not making contact.
- The PhD advisor has the responsibility to be supportive during both successful and discouraging periods of training.
- The PhD advisor has the responsibility to communicate in a respectful and constructive manner, including if the advisor has concerns that the PhD student is not meeting the expectations outlined in this document. This responsibility includes using concrete and specific language when providing suggestions or critiquing work.
- The PhD advisor has the responsibility to take an interest in the student's well-being, to listen to any concerns, and to connect the student, as appropriate, with additional resources.

# Policies:

- The PhD advisor has the responsibility to become familiar with and respect University, school, and program policies for PhD students. The advisor will acknowledge all PhD student benefits and entitlements, including, as relevant, paid and unpaid leave.
- The PhD advisor has the responsibility to discuss with the student relevant policies, commitments, and expectations related to funding, work, research assistantships, teaching assistantships, sick leave, or vacation.

# Responsible conduct:

- The PhD advisor has the responsibility to become familiar with university and professional codes of responsible conduct for PhD students. This responsibility includes reporting any possible violations as required to relevant parties, including to the relevant Dean's office and to the Office of Institutional Equity.
- The PhD advisor has the responsibility to discuss and help clarify authorship or intellectual property issues and appropriately recognize the student's contributions to any collaborative work.
- The PhD advisor has the responsibility to model professional behavior in both interpersonal interactions and in scholarly integrity.
- The PhD advisor has the responsibility to complete Title IX Training regarding sexual misconduct and sexual harassment as required by the University.

http://oie.jhu.edu/training/

Continuous quality improvement as an advisor:

- The PhD advisor has the responsibility to participate in mentor training and best practices discussions. This responsibility includes striving to be a better mentor and to learn tips and practices that improve their work and skills as an advisor.
- The PhD advisor has the responsibility to ask advisees for constructive feedback on mentoring. This responsibility includes doing their best to respond professionally to these suggestions and consider whether or how best to incorporate them into their mentoring interactions.

# PhD students should commit to the following responsibilities:

Training:

- The PhD student has the primary responsibility for the successful completion of their degree.
- The PhD student has the responsibility to familiarize themselves with academic milestones and to strive to meet all milestones within the expected timeframe.
- The PhD student has the responsibility to meet regularly with the PhD advisor. This responsibility includes providing the advisor with updates on the progress, outcomes, and challenges in coursework, research, and academic or professional activities. The advisor and the student should agree on expected frequency of and preparation for meetings, and will use meetings to brainstorm ideas, troubleshoot challenges, and outline expectations for work and timelines.
- The PhD student has the responsibility to participate in a formal annual meeting with the advisor to discuss academic progress and next steps in the academic program. The student should ensure that the document summarizing this discussion is completed and submitted in accordance with program requirements.
- The PhD student has the responsibility to seek additional mentors to expand their training experience, as appropriate.
- The PhD student has the responsibility to understand their funding package and to clarify any work and/or teaching expectations in line with this funding.

Research:

- The PhD student has the responsibility to work with the advisor to develop a thesis/dissertation project. This responsibility includes establishing a timeline for each phase of work and striving to meet established deadlines.
- The PhD student has the responsibility to seek guidance from their advisor, while also aspiring increasingly for independence.
- The PhD student has the responsibility to engage in activities beyond their primary research responsibilities. The student should attend and participate in any research-related meetings and seminars relevant to their training area.

# Professional development:

- The PhD student has the primary responsibility to identify their professional goals and to develop their career plan following completion of the PhD degree. This responsibility includes familiarizing themselves with professional development opportunities within Johns Hopkins and externally. Students should identify specific activities to pursue that will advance their professional development and networking.
- The PhD student has the responsibility to prepare a Professional Development Plan annually that outlines their research and career objectives. This responsibility includes discussing this plan annually with the advisor. The student should ensure that the document summarizing this discussion is completed and submitted in accordance with program requirements.

# Respectful engagement and well-being:

- The PhD student has the responsibility to treat the advisor, other mentors, and colleagues with respect at all times.
- The PhD student has the responsibility to make themselves available, within reason, to meet with the advisor upon request.
- The PhD student has the responsibility to communicate in a respectful and constructive manner if they have concerns that the advisor is not meeting the expectations outlined in this document.
- The PhD student has the responsibility to be open to constructive criticism by the advisor, other mentors, and colleagues.
- The PhD student has the responsibility, as possible, for their well-being, should consider discussing any concerns with the advisor or other mentor(s), and should connect with available resources when needed.

# Policies:

- The PhD student has the responsibility to familiarize themselves and comply with University, school, and program-specific policies and requirements for PhD students.
- The PhD student has the responsibility to discuss with the advisor relevant policies, commitments, and expectations related to funding, work, research assistantships, teaching assistantships, sick leave, or vacation. As needed, the student will provide any documentation relevant to stated policies on leave and other requirements to the student's program, school, or the University.

Responsible conduct:

- The PhD student has the responsibility to conduct themselves in a responsible and ethical manner at all times.
- The PhD student has the responsibility to familiarize themselves with University codes of responsible conduct for PhD students.
- The PhD student has the responsibility to engage in responsible research conduct. This responsibility includes completing the responsible conduct of research training requirements of their specific school and program, and any specific discipline training requirements (e.g., animal and human subject work). The student will maintain accurate and contemporaneous records of research activities in accordance with the norms of best practices in their own discipline. The student should discuss authorship and intellectual property issues with the advisor.
- The PhD student has the responsibility to complete Title IX Training regarding sexual misconduct and sexual harassment as required by the University.

http://oie.jhu.edu/training/