# Thomas C. Jenkins Graduate Program in Biophysics

## 2021 – 2022 Student Handbook

### CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biophysics Graduate Student Milestones by Year</td>
<td>4</td>
</tr>
<tr>
<td>Year One</td>
<td>4</td>
</tr>
<tr>
<td>Year Two</td>
<td>4</td>
</tr>
<tr>
<td>Year Three</td>
<td>5</td>
</tr>
<tr>
<td>Up to Final Year</td>
<td>5</td>
</tr>
<tr>
<td>Final Year</td>
<td>5</td>
</tr>
<tr>
<td>Program Requirements</td>
<td>6</td>
</tr>
<tr>
<td>Overview and General Expectations</td>
<td>6</td>
</tr>
<tr>
<td>Core Courses</td>
<td>7</td>
</tr>
<tr>
<td>Policy on Grades</td>
<td>7</td>
</tr>
<tr>
<td>Academic Integrity and Student Conduct</td>
<td>7</td>
</tr>
<tr>
<td>Teaching Assistantship Requirements</td>
<td>8</td>
</tr>
<tr>
<td>Laboratory Rotations</td>
<td>8</td>
</tr>
<tr>
<td>Rotation Evaluations</td>
<td>9</td>
</tr>
<tr>
<td>Responsible Conduct of Research</td>
<td>9</td>
</tr>
<tr>
<td>Participation in Scientific Meetings</td>
<td>9</td>
</tr>
<tr>
<td>Faculty Research Interests</td>
<td>9</td>
</tr>
<tr>
<td>Seminar Series</td>
<td>9</td>
</tr>
<tr>
<td>Graduate Board Preliminary Oral Examination</td>
<td>10</td>
</tr>
<tr>
<td>Leave of Absence</td>
<td>11</td>
</tr>
<tr>
<td>Returning from Leave of Absence</td>
<td>11</td>
</tr>
<tr>
<td>Probation and Dismissal from the Program</td>
<td>12</td>
</tr>
</tbody>
</table>

Jenkins Biophysics Ph.D. Student Handbook 1
Thesis Requirements .................................................................................................................. 13
Thesis Advisor .......................................................................................................................... 13
Annual Thesis Reviews .............................................................................................................. 13
Final Oral Examination and Thesis requirement ...................................................................... 14
Thesis Approval ......................................................................................................................... 15
Thesis Seminar .......................................................................................................................... 15
Granting of Degree .................................................................................................................... 15

Administration .......................................................................................................................... 16
Administrative Structure .......................................................................................................... 16
School and Departmental Affiliation ......................................................................................... 16
Summer Registration ................................................................................................................ 16
Financial Support ...................................................................................................................... 16
Employment ............................................................................................................................... 16
University Computer Policy ...................................................................................................... 16

Leave ........................................................................................................................................ 17
Vacations and Holidays ............................................................................................................ 17
Sick Leave ................................................................................................................................. 17
Parental Leave ......................................................................................................................... 17

Administrative Contacts .......................................................................................................... 18
Program Director ....................................................................................................................... 18
Program Coordinator ............................................................................................................... 18
Department Administrator ......................................................................................................... 18
Academic Advising .................................................................................................................. 18

General Resources for Graduate Students .............................................................................. 19
Office of KSAS Graduate Affairs ............................................................................................ 19
Graduate Representative Organization (GRO) ........................................................................ 19
Office of International Services ............................................................................................... 19
Student Health & Wellness Center ......................................................................................... 19
Counseling Center .................................................................................................................... 19
Sexual Assault Response & Prevention .................................................................................. 19
**BIOPHYSICS GRADUATE STUDENT MILESTONES BY YEAR**

**YEAR ONE**

The table below provides an overview of classes and activities that will take place in the first year. The detailed schedule for these first year events are available on a Google Calendar for both PMB and Jenkins Biophysics students. You can access this calendar with the link below. Keep in mind that scheduled events can change, so please talk with instructors about meeting times and places if any questions arise.

[link]

<table>
<thead>
<tr>
<th>Fall semester</th>
<th>Spring semester</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Computing in Biology (September only)</td>
<td></td>
<td>Mandatory Safety Course</td>
</tr>
<tr>
<td>Proteins and Nucleic Acids</td>
<td></td>
<td>Biophysics Seminar</td>
</tr>
<tr>
<td>Physical Chemistry of Biological Macromolecules</td>
<td></td>
<td>Teaching</td>
</tr>
<tr>
<td>Modules in Biophysical Methods (7-8 weeks, spread throughout the first year as indicated on the PMB/Jenkins First year google calendar)</td>
<td></td>
<td>Research or Rotation 3</td>
</tr>
<tr>
<td>Mandatory Safety Course</td>
<td>Responsible Conduct of Research (RCR) course</td>
<td>GBO practice (May)</td>
</tr>
<tr>
<td>Biophysics Seminar</td>
<td>Biophysics Seminar</td>
<td></td>
</tr>
<tr>
<td>Teaching</td>
<td>Teaching</td>
<td></td>
</tr>
<tr>
<td>Jenkins Rotations* 1 and 2</td>
<td>Research or Rotation 3</td>
<td></td>
</tr>
<tr>
<td>GBO practice (May)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Each student will give a 10 min presentation to the Department at the end of each rotation. Students should expect to join a group following the end of their second rotation. Students may elect to do a third rotation during summer. Thesis research is expected to start immediately upon joining a group. All students must have a thesis advisor by the start of their second year to remain in the Jenkins Program.

**YEAR TWO**

<table>
<thead>
<tr>
<th>Fall semester</th>
<th>Spring semester</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Board Oral Examination (May)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Elective Course (Fall or Spring)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biophysics Seminar</td>
<td>Biophysics Seminar</td>
<td></td>
</tr>
<tr>
<td>Teaching</td>
<td>Teaching</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>Research</td>
<td>Research</td>
</tr>
</tbody>
</table>
YEAR THREE

<table>
<thead>
<tr>
<th>Fall semester</th>
<th>Spring semester</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public presentation of thesis research (25 min), followed by closed-door Thesis Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biophysics Seminar</td>
<td>Biophysics Seminar</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>Research</td>
<td>Research</td>
</tr>
</tbody>
</table>

---

UP TO FINAL YEAR

<table>
<thead>
<tr>
<th>Full time research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual thesis review (November / December) with Thesis Review Committee</td>
</tr>
<tr>
<td>Yearly RCR refresher course</td>
</tr>
<tr>
<td>Attend seminars. Attendance to named lectures mandatory.</td>
</tr>
</tbody>
</table>

---

FINAL YEAR

<table>
<thead>
<tr>
<th>Write dissertation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearly RCR refresher course (as applicable)</td>
</tr>
<tr>
<td>Final oral examination (private defense)</td>
</tr>
<tr>
<td>Submit final dissertation to Milton S Eisenhower Library (MSEL)</td>
</tr>
<tr>
<td>Thesis seminar (mandatory one-month waiting period)</td>
</tr>
<tr>
<td>Receive degree</td>
</tr>
</tbody>
</table>
PROGRAM REQUIREMENTS

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 three core courses in the Fall semester of their first year: Introduction to Computing (September only), Physical Chemistry of Macromolecules, and Proteins and Nucleic Acids. The fourth core course, Biophysical Methods Modules, is a collection of week-long units that occur at the start of the Fall semester, and immediately before and after the Spring semester of the first year. The Biophysics Modules cover topics including Statistics, Spectroscopy, NMR, X-ray crystallography, Single Molecule Methods, and Molecular Simulations.

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 in 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 7-week rotations, where they will work on a project in the 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.

Each student will have a practice GBO at the end of the Spring semester of their first year. 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 Graduate Board Oral (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 a GBO exam. This is an oral exam, given by five faculty members, and 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:

http://web.jhu.edu/administration/provost/initiatives/phd_board/rights_responsibilities
CORE COURSES

The following courses are required of all Jenkins students:

- Physical Chemistry of Biological Macromolecules  *(García-Moreno & staff)*
- Proteins and Nucleic Acids  *(Woodson/Bowman)*
- Introduction to Computing Course  *(Bowman & staff)*
- Mandatory Safety Course  *(on-line)*
- Mandatory Responsible Conduct of Research Course  *(Evans)*
- Modules in Biophysical Methods  *(Lecomte & staff)*
- Biophysics Seminar  *(Lecomte)*
- Elective Course  *(graduate-level science-based course, chosen by the student and approved by the academic advisors)*

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

- Students must receive a grade of B- or higher in any of the required courses or the course must be repeated.
- 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.

During each semester, students must keep a grade point average of 3.0 (B) for all courses taken. Falling below the GPA of 3.0 for one semester is grounds for a warning; falling below it 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.

ACADEMIC INTEGRITY AND STUDENT CONDUCT

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.
• **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.

A Johns Hopkins University guide, Academic Ethics for Undergraduates, is included as an appendix. Although the guide is written for undergraduates, the principles regarding academic integrity apply to all students in the University.

Procedures for handling allegations of misconduct by full-time and part-time graduate students in the Schools of Arts & Sciences and Engineering can be found at

[http://homewoodgrad.jhu.edu/academics/policies/](http://homewoodgrad.jhu.edu/academics/policies/)

---

**TEACHING ASSISTANTSHIP REQUIREMENTS**

All graduate students in the T.C. Jenkins Program are required to be teaching assistants (TAs) for the Fall and Spring semesters during the first two years. TAs help course instructors with grading and course logistics. These are undergraduate-level courses administered by the Biophysics Department, and each TA-ship will be assigned by the Program Director. Courses available for Jenkins TA-ships include Introduction to Computing (250.205) and Protein Engineering and Biochemistry Lab (250.253).

Students are expected to attend the lectures/laboratory sessions of the courses for which they are TAs. Duties include grading weekly assignments and exams, in-class help for undergraduate students, holding weekly office hours to review class material, and other activities to assist the lead instructors.

---

**LABORATORY ROTATIONS**

The primary intent of a rotation is to give the student experience with particular research and the feel for a laboratory rather than successful completion of a project. Each student is required to complete two 8-week laboratory rotations during their first academic year. *The rotations must be performed in the laboratories of Jenkins faculty members, without exception.*

At the end of each rotation period, students will present 10-minute talks in front of their rotation advisors and other 1st-year students. All other biophysics faculty and students will be invited to attend. For 2022, the two Spring rotations are scheduled for Jan 24 – March 18 (rotation period 1) and March 28 – May 20 (rotation period 2).

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 need to have approval from the Program Director. Occasionally, incoming students spend part of the summer before their first year working in the laboratory of a faculty member. The student may choose to do a rotation in that same laboratory during one of the rotation periods.
ROTATION EVALUATIONS

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. An evaluation with unsatisfactory rankings is grounds for a warning letter, and a second rotation with unsatisfactory rankings is potential grounds for dismissal (see Probation and Dismissal from the Program, below). The form is appended at the end of the handbook.

It is expected that students will work diligently during each rotation, regardless of their choice of thesis laboratory.

RESPONSIBLE CONDUCT OF RESEARCH

The University expects that all graduate students receive training in responsible conduct of research. T.C. Jenkins graduate students must take a Responsible Conduct of Research (RCR) class offered during Summer of their first year, organized by the University on the Homewood campus.

In addition, all graduate students beyond the first year must attend a yearly mandatory refresher session, organized by the Program in Molecular Biophysics (PMB). This session will generally take place at the beginning of the year.

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, and students and postdoctoral fellows are strongly encouraged to participate. The retreat gives faculty and students within the Institute the opportunity to hear about current research in other laboratories.

Of course, 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 current faculty research interests. An annual retreat for the Hopkins biophysics community is held in the fall, giving first-year students a full picture of the research taking place in T.C. Jenkins laboratories and a chance to think about rotation possibilities. Program faculty are always happy to talk to interested students individually about their work. All students are encouraged to contact faculty about research options.

SEMINAR SERIES

It is an essential part of the educational process for students to attend seminars, both in the area of biophysics and in other areas. During their first and second years, students are required to attend at least the T.C. Jenkins Biophysics Seminars, all named lectures, and the Chalk It Up series (see
below). Homewood biophysics seminars are held on Mondays, 12 noon. Repeated absences will result in a failing grade for the seminar course. Students are also encouraged to attend other seminars of interest, held in various departments on the Homewood and East Baltimore campuses.

Beyond the second year, students are expected to attend as many seminars as possible, all named lectures, and the Chalk It Up series.

- Thomas C. Jenkins Department of Biophysics seminar series comprises the required course Biophysics Seminar (AS250.601-602) mentioned above. Students are expected to continue to attend this Monday noon seminar series after their second year.

- 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.

- Other departments on the Homewood campus and at the JHU medical school campus also have regular seminar series that may be of interest. These include the departments of Biology (Homewood, Thursdays 4pm), Chemical and Biomedical Engineering (Homewood, Thursdays 3:30pm), Biophysics and Biophysical Chemistry (School of Medicine, Wednesdays 1:30pm), Mechanical Engineering (Homewood, Thursdays 3pm), and Chemistry (Homewood, Tuesdays 4:15pm).

- Students are strongly encouraged to participate in the 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.

GRADUATE BOARD PRELIMINARY ORAL EXAMINATION

- 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 April/May of the second year.

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

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: The preliminary oral examination is designed to test the breadth and depth of the student’s knowledge and reasoning abilities. Students are not expected to make a formal thesis presentation at their oral although the committee may ask for a brief description of their project.

- Setting up the oral exam: Students will be notified of when they are scheduled to appear by the 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 prevents 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/](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, 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, s/he 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 REQUIREMENTS

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 student and advisor, and it should be made with care. Faculty are not required to accept all students interested in their laboratories. In unusual circumstances, the Director may authorize a third rotation (see Program Requirements).

ANNUAL THESIS REVIEWS

As a rule, the student's first thesis review will occur in the fifth semester (typically the Fall semester of the third year), when progress made on thesis research will be evaluated. Therefore, in addition to their teaching responsibilities, second year students are expected to spend a significant amount of time in the laboratory. Prior to the first thesis review, each student must give a formal 25 min seminar. This seminar, given in public, will provide the context and background rationale for their thesis work, and provide an opportunity to discuss preliminary results. Following the public presentation, the student will then have a thesis review in a private setting, with the review committee asking questions based on the data and background from the seminar.

For the first thesis review, each student will also submit a six-page research proposal. We have a writing workshop in the Spring semester, where second year students write (and receive critiques on) a draft proposal. Students, with guidance from their advisors, are expected to continue working on and refine these proposals over the next ~half year, so that they will be solid conceptual ideas and experimental plans by the Fall of their third year.

Second year students also take a course on how to give effective oral presentations. Student prepare and give practice talks in front of their peers, and receive feedback on how to improve their presentation style.

After the third year review, students should expect to have an annual thesis review each fall semester. The thesis committee will consist of two faculty plus the thesis advisor. The additional faculty will be selected by the advisor and the student. At least one should be a member of the Jenkins faculty. The fourth year and subsequent thesis reviews 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 one-page research summary to the program coordinator 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, the student should arrange a meeting with the thesis advisor to discuss an Individual Development Plan (information included in appendix).

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 faculty (plus one alternate). For continuity, the committee should be composed of the student’s thesis review committee plus two additional faculty and one 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. Students who have scheduled their defense must provide the information to the program coordinator as soon as available. 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 1st and 2nd 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 2nd 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.
ADMINISTRATION

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 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 during the summer session.

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:

http://it.jhu.edu/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. See section 11.2.13.1 of http://grants.nih.gov/grants/policy/nihgps_2013/

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 are interpreting these rules to mean that students receive 10 days of vacation each year, plus normal University holidays, 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.
ADMINISTRATIVE CONTACTS

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

PROGRAM COORDINATOR

Nicole Goode
Biophysics Office
201 Jenkins Hall
School of Arts & Sciences
phone: 410-516-5197
fax: 410-516-4118
email: ngoode@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

ACADEMIC ADVISING

Students should discuss questions about the program, minor academic problems, and other issues that may arise with the Program Academic Advisors. Drs. Gregory Bowman and Sarah Woodson will serve as academic advisors for the first year, and Dr. Gregory Bowman will be advisor for the second and subsequent years. Following successful completion of the GBO exam, students will also receive advice and guidance from their Thesis Review Committee.
OFFICE OF KSAS GRADUATE AFFAIRS

The Office of KSAS Graduate Affairs addresses the needs and concerns of KSAS graduate students and helps develop policy with the KSAS Dean's Office. Renee Eastwood is the current Director for KSAS Graduate Academic Affairs, rseitz5@jhu.edu.

GRADUATE REPRESENTATIVE ORGANIZATION (GRO)

The 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. For more information, visit http://gro.jhu.edu/, gro@jhu.edu.

OFFICE OF INTERNATIONAL SERVICES

The Office of International Services (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: http://ois.jhu.edu/

STUDENT HEALTH & WELLNESS CENTER

The Student Health and Wellness Center 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. For more information, visit http://web1.johnshopkins.edu/~shcenter/.

COUNSELING CENTER

The Counseling Center 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. For more information, visit http://web.jhu.edu/counselingcenter.

SEXUAL ASSAULT RESPONSE & PREVENTION

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. Sexual Assault Helpline 410-516-7333, http://sexualassault.jhu.edu/.
This office oversees concerns relating to sexual harassment, discrimination/compliance, and disability services. www.jhuaa.org; Garland Hall, Suite 130, office telephone 410-516-8075, disability support services 410-516-8949.

JOHNS HOPKINS UNIVERSITY CAREER CENTER

The Johns Hopkins Career Center serves all full-time students (freshmen through PhD candidates) in the Krieger School of Arts & Sciences and the Whiting School of Engineering. http://pages.jh.edu/~careers/; Garland Hall, 3rd Floor, 410-516-8056, career@jhu.edu.

ENGLISH LANGUAGE FOR NON-NATIVE SPEAKERS

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, English as a Second Language for International TAs, offered by the Center for Language Education 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 semester-long course for improving English speaking: http://krieger.jhu.edu/cle/language-programs/english-for-international-tas/

Disclaimer: 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.