

DREXEL UNIVERSITY
College of
Arts and Sciences
Department of Biology

## Department of Biology

## Graduate Student Handbook

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## I. INTRODUCTION

The Department of Biology offers graduate programs leading to the Doctor of Philosophy degree and to the Thesis or Non-thesis Master of Science degree. The curricula are designed to provide students with advanced coursework, introduce students to the current scientific literature, as well as prepare students for scientific communication. These classes will expand students' knowledge, analytical ability, and use of the scientific method. Thesis research provides the opportunity to utilize and expand these abilities while addressing a novel scientific question. The intellectual life of the department relies heavily on the participation, creativity, and energy of graduate students in addressing these questions. Publishing manuscripts is expected since it provides both an indication of successful learning and implementation of the scientific method and a necessary milestone for future advancement in science. In addition to being mentored by a professor, seminars, journal clubs and informal discussions provide a rich, interactive environment in which students can develop as scientists.

This handbook is designed to provide guidance to current graduate students in the Department of Biology. Students are expected to familiarize themselves with the policies herein. The handbook is intended to address common questions regarding departmental policies and programs, however, first year students are encouraged to schedule an early appointment with Kate Pelusi, the Graduate Program Manager, or with Daniel Marenda, PhD, the Graduate Program Director, to answer your specific questions and to develop the first draft of a Plan of Study suited to your individual needs.

Graduate Student Forms - PhD students have a number of forms (i.e. D1 - D5) that need to be completed as they progress through the program. All forms referenced in this handbook can be found on the Graduate College website at drexel.edu/graduatecollege/ under Forms: Doctoral Student Forms. MS Thesis students should consult the Graduate Program Manager for appropriate forms. All forms must be submitted to the Graduate Program Manager prior to being forwarded to the Office of Graduate Studies.

Special circumstances - The Department of Biology offers a number of degree programs and educates both traditional and non-traditional graduate students. The department's Graduate Program Committee recognizes that deviation from the guidelines presented in this handbook may be necessary in special circumstances. Graduate students and/or their faculty advisers may petition the Graduate Program Committee for exemptions to the prescribed rules and schedules. Exemptions that conflict with university policy will not be granted.

## II. GRADUATE PROGRAMS AND REQUIREMENTS

## A. The Doctor of Philosophy Degree

The Doctor of Philosophy ( PhD ) degree is the terminal degree for students who wish to eventually pursue a leadership role in academic, governmental or industrial settings. In accordance with university policy, students who enter the program with a master's degree (postmaster's status) must complete 45 credits of coursework and/or research. Students entering the program with a bachelor's degree (post-baccalaureate status) must complete 90 credits of coursework and research.

Table 1 provides a summary of the PhD program requirements and timelines. Typically the focus of the first 12-24 months in the program is on completing coursework, choosing a dissertation mentor and together with your mentor developing a dissertation topic. By the end of the second year all PhD students must have completed their candidacy examination, detailed below. After successful completion of the candidacy examination, students will devote their efforts to the completion of an original research project. The results of the student's research must be of sufficient quality to be publishable in mainstream, peer-reviewed scientific journals. Progress towards these degree requirements is overseen and guided by the Dissertation Adviser, the Dissertation Research Committee, and the Graduate Program Committee. Below we provide details on coursework, candidacy examinations, dissertation research and the dissertation defense.

## Coursework

It is anticipated that all the graduate coursework will be completed during the first two years of the PhD students will register for classes 9 months out of the year (Fall, Winter \& Spring Quarters). All students take 6 credits per quarter in the first year. In the second year, postbaccalaureate students take 9 credits per term and post-masters students take 6 credits per term. Post-baccalaureate students are required to obtain 45 credits by the end of their $2^{\text {nd }}$ year; students entering with a Master's degree are required to complete 15 credits by the end of their $1^{\text {st }}$ year. After completing the required coursework, students generally fulfill the credit requirements of a full-time graduate student by registering for dissertation research (Bio 997). Students must maintain a cumulative grade point average (GPA) of at least a 3.0.

Concerning final grades, the department of Biology conforms with the language written in the Office of Graduate Studies handbook: "Final Grades. Permanent/final grades are awarded in one of two ways. 1. Some courses are graded on a letter grade system $(A+, A, A-B+, B, B-C+$, $C, C$-, $D+, D$, or $F$ ). These grades have numerical quality point weights. Grades below $B$ in required core courses taken in the major field and grades below $C$ in all other graduate courses in the student's Plan of Study are not recognized as passing grades and their credits are not considered to be earned credits in clearing a student for graduation. All permanent grades with quality point weights count in the computation of the student's cumulative grade point average."

The progress of each student is reviewed each term by The Graduate Program Committee. Failure to maintain a minimum 3.0 cumulative GPA will result in the student being placed on academic probation and may result in the loss of the student's research or teaching assistantship. For students placed on probation they must, during the following two academic quarters: 1) earn
a 3.0 or better in each term and 2) achieve a cumulative GPA of at least a 3.00 . Failure to meet either of these requirements will result in the dismissal of the student from graduate studies at Drexel University. Graduate students must have a minimum 3.00 cumulative GPA in order to graduate, i.e. students cannot graduate while on academic probation.

## Required Seminars

All PhD and MS (Thesis) graduate students are required to attend the Departmental Seminar/Graduate Student Research Seminar on Tuesdays from $3: 30 \mathrm{pm}-4: 50 \mathrm{pm}$. With the exception of first year students, all PhD students are required to present their research at the Graduate Student Research Seminar once each academic year. Second and third year students will be give 15-20 minute seminars, while fourth and fifth year student will give 30-45 minute seminars. A schedule will be generated by the beginning of the fall term.

## First-Year Presentations

All first-year students will be required to give a brief 10 minute presentation on their projects. If a student has been directly recruited into a lab, they will only need to present once during their first-year. If a student is completing rotations, they will need to present for each rotation completed.

## Travel Awards

In an effort to stimulate scientific education, funds are available to help offset the costs associated with attending scientific conferences and courses. The departmental graduate committee will review applications twice a year in September and March.

## Eligibility Requirements and other Relevant Information:

- Students must be presenting a poster or paper, or participating in course
- Preference given to students who haven't received prior funding
- Must be a doctoral candidate
- Awards of up to $\$ 250$
- Maximum of one award per year per student
- If a TA, you must assist course instructor to identify a replacement TA for the classes you will miss.
- Applications must be submitted before travel
- Must also apply for travel funds from the Graduate College (OGS) and/or the Office of International Studies (OIS) (if applicable)


## Dissertation Research

Selecting a dissertation adviser is a very important step in the career of PhD students, since their thesis mentor will be directly advising them for the next 3-5 years as well as advising students throughout their professional careers. In our program, some first year PhD students are recruited directly into specific faculty laboratories during the admission process. Other students choose their dissertation adviser by completing laboratory rotations.

Table I. Summary of $\mathbf{P h D}$ program requirements and timelines.

| Year | Quarter | Post-Baccalaureate students entering PhD Program |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Classwork | Research | Cmtes/Exams |
| 1 | F | Core Course and Distribution/Comp Requirement | Identify research mentor |  |
|  | W | Core Courses and Core Elective Core Course and Distribution/Comp | " |  |
|  | $\mathrm{Sp}$ | Requirement no classes | Choose research topic Collect Preliminary data | Develop thesis proposal |
| 2 | F | Electives/ | " | Form Dissertation Cmte |
|  | w | Electives/ | " | Initial Cmte meeting |
|  | Sp | Electives/ | " | Candidacy Examination |
|  | Su | no classes | Dissertation Research | Candidacy Examination |
| 3/4/5 | F |  | " |  |
|  | W |  | " | 1 cmte mtg / yr |
|  | Sp |  | " |  |
|  | Su |  | " |  |
|  |  |  |  | Dissertation Defense |


| Year | Quarter | Post-Masters students entering PhD Program |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Classwork | Research | Cmtes/Exams |
| 1 |  | Core Course and |  |  |
|  |  | Distribution/Comp |  |  |
|  | F | Requirement | Identify research mentor |  |
|  |  | Core Courses and |  |  |
|  | W | Core Electives | Choose research topic | Develop thesis proposal |
|  |  | Core Course and |  |  |
|  |  | Distribution/Comp |  |  |
|  | Sp | Requirement | " | Form Dissertation Cmte |
|  | Su | no classes | Dissertation Research | Eligible for candidacy exam |
| 2 | F |  | " |  |
|  | W |  | " | 1 cmte mtg / yr |
|  | Sp |  | " | Candidacy Examination |
|  | Su |  | " | Candidacy Examination |
| 3/4/5 | F |  | " |  |
|  | W |  | " | 1 cmte mtg / yr |
|  | Sp |  | " |  |
|  | Su |  | " |  |
|  |  |  |  | Dissertation Defense |

## Selection of Dissertation Adviser

By the end of the third quarter of the first year, PhD students should have committed to a research lab and Dissertation adviser. Careful and early consideration must be given to the selection of an appropriate research area and adviser.

We encourage student initiative in selection of research areas, but written concurrence by signature on the Plan of Study of a tenured or tenure-track department faculty member who will serve as the Dissertation Adviser must be obtained. The department undertakes the obligation to provide an opportunity for the student to work on a research problem deemed appropriate by faculty. If the student and the faculty cannot mutually agree on an Adviser and a research problem, then the student will not be allowed to continue in the program.

The Dissertation Adviser must be approved by the Graduate Program Committee and the Department Head (Form D1). Under very unusual circumstances, approved research may be carried out at other Drexel-affiliated institutions; however, prior approval must be obtained from the Graduate Program Committee and the Department Head. The off-site research adviser would become a member of the Dissertation Research Committee and the student must enlist a tenured departmental faculty member to serve as Dissertation Adviser.

## Dissertation Research Committee

In consultation with the Dissertation Adviser, a committee will be selected to guide the progress of the PhD student. This committee must be formed and meet by the end of the Fall Quarter of the second year.

The five-member committee must include at least three tenured or tenure-track faculty members with an appointment in the Biology department, one of whom is the student's Dissertation Adviser. At least one of the committee members must be from outside the student's department. The Chair of the Dissertation Research Committee will be one of the departmental faculty members on the committee other than the Dissertation Adviser. It is recommended that the Chair be a tenured faculty member whenever possible; the Chair must be a tenure-track faculty member. The committee must be approved by the Graduate Program Committee and the Department Head. Recognizing that there may be reasons for committee composition to deviate from the above model, the student and adviser may petition the Graduate Program Committee to modify the guidelines on an individual basis.

The student will conduct dissertation research under the direct supervision of the Dissertation Adviser and the general guidance of the Dissertation Research Committee. The Dissertation Research Committee must be convened at least once per year to assess whether the student is making satisfactory progress toward the degree. If possible, this meeting should correspond to the student's required annual Graduate Research Seminar presentation.

It is important to schedule the first meeting of the Dissertation Research Committee promptly, it is a key factor in scheduling your candidacy examination. Prior to the first meeting of the Dissertation Research Committee, the student will prepare with the Dissertation Adviser a revised Plan of Study (Form D1). At the first dissertation committee meeting, the student should make a presentation to the committee that outlines the proposed dissertation project. This project
will form the basis of the candidacy examination. The committee will provide feedback on the specifics of the proposed dissertation project. At the same time, the committee will describe the "knowledge areas" that students should have advanced knowledge in. Students will be expected to have command of facts, experimental approaches and the latest findings of these areas for the candidacy examination.

## The PhD Candidacy Examination

The function of the Candidacy Examination is to test the breadth and the depth of the student's capabilities in their chosen area of study. The graduate student becomes a PhD Candidate only after successfully completing the Candidacy Examination and completing 15 or 45 credits (for post-master's or post-bachelor's degree students, respectively).

All students are expected to complete this examination by the end of the Spring Quarter of their second year. Part-time students will take the Candidacy Examination at a time recommended by their Dissertation Research Committee.

The Candidacy Examination will be conducted by the student's Doctoral Candidacy Committee, which will be comprised of the Dissertation Research Committee and any additional members deemed necessary by the Dissertation Research Committee. Students should convene a meeting of the dissertation research committee as early as possible to propose a dissertation project (by spring at the latest). The committee will give the student valuable feedback on the proposed project that the student should consider thoroughly. In addition, the committee will describe the "knowledge areas" that students should have advanced understanding of. Students will be expected to have command of facts, experimental approaches and the latest findings of these areas for the candidacy examination. Finally, in consultation with their dissertation committee, students should schedule the written portion of the candidacy exam, which in most cases it follows the oral examination

The candidacy exam is comprised of three parts whose order will be determined by the Doctoral Candidacy Committee:

1. Written Examination. Students will be assessed on their ability to answer questions related to their proposed dissertation project. Usually two to four questions are given and the examination takes the form of a "take-home" examination. The timing and content of the written exam depends upon the research division and can be found at the end of the respective Graduate Curriculum sections, see Section VI below. The PhD Candidacy Committee will meet and approve the answers to the examination on a pass/revise/fail basis. Students may be required to orally defend their responses, see below.
2. Dissertation Research Proposal. The student will also prepare a proposal of their anticipated dissertation research project. The proposal will be in the format of a predoctoral/postdoctoral fellowship proposal to NIH or NSF. The format of these proposals has changed recently and is now 6 pages in length, excluding references. Please check the NIH/NSF websites for the latest format constraints.

It is expected that the student will have been developing the proposal in consultation with the Dissertation Adviser and Committee. The proposal must be distributed to the Candidacy Committee two weeks prior to the oral examination. It is anticipated that
upon completion of Candidacy, this proposal will be submitted to the appropriate funding agency for consideration.
3. Oral Examination. The student will give a seminar-type presentation to the examination committee, which details the dissertation proposal and any preliminary results. Committee members will question the student on topics presented in the proposal and presentation, as well as "knowledge area" topics. In cases when the written examination precedes the oral examination, questions about the written examination will be asked. The questioning may be broadened to include basic knowledge of the student's discipline(s) or of science in general.

Assessment. Based on a student's performance on all three aspects of the candidacy exam, a grade of pass, revise, or fail will be given. If a student is asked to revise either dissertation proposal and/or the written examination, then the committee will give the student specific comments on the material and the student must revise the document within two weeks of the exam. There is a limit of two rounds of revision; students that do not make satisfactory progress in these revisions after two rounds will fail the exam.

If a student should fail the Candidacy Examination, the student may retake the examination once, but there must be a minimum 3-month period between the exams. A second failure will result in the termination of the student from the degree program. Upon notification of termination from the program, the student can petition the Graduate Program Committee to be permitted to complete a Non-thesis Masters degree, provided they meet the credit requirements. Once a student passes the candidacy exam they are considered a PhD candidate and must submit Forms D2 and D2A to the Graduate Program Manager and to the Office of Research and Graduate Studies.

According to Drexel University policy, following the successful completion of the Candidacy Examination, the student must be registered each quarter during the academic year (Fall, Winter, Spring) for one credit hour of Graduate Research (BIO 997).

## Dissertation

The student will finalize their Dissertation only after approval to write is granted by the Dissertation Research Committee. Approval will be based upon an evaluation of the breadth and depth of original research being conducted by the student. The dissertation must follow the format specifications set forth in the Drexel's Office of Graduate Studies. Formal appointment of the Dissertation Research Committee follows submission of Form D3 to the Graduate Program Manager and to the Office of Graduate Studies.

## Dissertation Defense

Research conducted for the Dissertation must be presented in a lecture open to the public and then defended, privately, before the student's Dissertation Research Committee. The Dissertation defense must be scheduled with the Office Graduate Studies four weeks in advance, using Form D4. A final draft of the dissertation must be given to all committee members two weeks prior to the defense and a public notice of the defense lecture posted one week before the defense. The committee members are free to examine at length the research as reported in the Dissertation, as well as the student's overall competence. The student must pass this exam (with
the assent of at least four-fifths of the committee members) and submit Form D5 to the Graduate Program Manager. The Dissertation must be submitted in the thesis format outlined in Haggerty Library's Thesis Manual [http://www.library.drexel.edu/thesis], have been submitted to Haggerty Library, and include the Thesis Approval Form before the student shall receive the PhD degree.

## Mileposts in the PhD Program

1. Selection of Dissertation Adviser Rotations - Students must select a Dissertation Adviser by the beginning of Summer Quarter in their first year.
2. Committee - Dissertation Research Committee constituted by end of the first year.
3. Coursework - Core coursework must be completed within the first two years of study, unless the Dissertation Research Committee requires otherwise.
4. Exam - The Candidacy Examination successfully completed by the end of second year.
5. Dissertation - Each PhD student is expected to complete their dissertation defense within 5 years. Drexel University requires that the dissertation be finished within 7 years.

## B. The Master of Science Degree with Thesis

The MS degree with thesis is for students interested in advanced graduate coursework and experience in completing an original research project. Students should choose a research adviser during their first quarter. During the first year, students begin their original research project. The findings of this work should be publishable in a peer-reviewed scientific journal. Progress towards these degree requirements is overseen and guided by the selected Thesis Adviser, the Thesis Research Committee, and the Graduate Program Committee.

## Coursework

The MS degree requires 45 credits beyond the Bachelor's degree, part of which will be credits for research and thesis. A maximum of 12 credits for independent research (either library or laboratory work, under direction of a faculty member from the Department) may be counted toward the degree. The courses that are applicable to this degree must be approved by the Graduate Program Manager in consultation with the Graduate Program Director. Annual meetings with the Graduate Program Manager are required. The first step is to submit a Plan of Study suited to your individual needs through the Graduate Program Manager.

## MS Thesis Research

Committee. Research for the thesis is conducted under the guidance of the student's Thesis Adviser and Thesis Research Committee. The Thesis Adviser must be a faculty member with an appointment in the department and must agree to serve as adviser. The student's Committee consists of at least three faculty members, of which at least two have appointments in the Department. The Chair of the Thesis Committee shall be a tenure-track faculty member from within the Biology Department who is not the thesis adviser and preferably tenured. Submit Form D1 to the Graduate Program Manager.

Research. The student will conduct thesis research under the direct supervision of the Thesis Adviser and general guidance of the Thesis Research Committee. MS (Thesis) students are not expected to complete the laboratory rotations described above for PhD students. The Thesis Research Committee must be convened at least once per year to assess whether or not the student is making satisfactory progress toward the degree.

Thesis Proposal. Within one year of entering the program, the student must orally present and defend their MS Thesis Proposal to the Thesis Research Committee. Committee members may examine the MS student on subject matter related to their thesis project. Submit Form D3A to the Graduate Program Committee, through the Graduate Program Manager.

Thesis. Students will finalize their Thesis only after approval is granted by the Thesis Research Committee. Approval will be based upon an evaluation of the breadth and depth of original research being conducted by the student.

Thesis Defense. Research conducted for the Thesis must be presented in a lecture open to the public and then defended, privately, before the student's Thesis Research Committee. The Thesis Defense must be scheduled with the Departmental Office four weeks in advance, a final draft of the thesis given to all committee members two weeks prior to the defense, and a public
notice of the defense lecture posted one week before the defense. The committee members are free to examine at length the research as reported in the Thesis, as well as the student's overall competence. The student must pass this exam (with the assent of at least two-thirds of the committee members) and the Thesis must be accepted by the Library before the student will receive the MS degree. Submit Form D5, the Thesis Approval Form, and the Completion Form to the Graduate Program Committee, through the Graduate Program Manager.

Any student passing the MS thesis defense may apply to transfer to the Departmental PhD program through the Office of Graduate Studies. The application will be forwarded to the Graduate Program Committee for their recommendation to the Department Head.

## Mileposts in the MS Thesis Program

1. Adviser - Students must be accepted into the laboratory of their Thesis Adviser by the end of the first quarter.
2. Committee - Thesis Research Committee must be constituted by the end of the second quarter
3. Proposal - Thesis Proposal acceptance by the Thesis Research Committee must be successfully completed by the end of the first year.
4. Coursework - Coursework must be completed in the first two years of study, unless the Thesis Research Committee requires otherwise.
5. Thesis - Each MS student is expected to complete his/her thesis defense within 3 years. Drexel University requires that the thesis be finished within 5 years.

## C. The Master of Science Degree, Non-Thesis

The non-thesis MS degree is a coursework-based degree for those looking to advance in their fields, but not desiring direct research experience.

## Coursework

This degree requires 45 credits beyond the Bachelor's degree. A maximum of 12 credits for independent research (either library or laboratory work, under direction of a faculty member from the Department) may be counted toward the degree. The courses that are applicable to this degree must be approved by the Graduate Program Manager in consultation with the Graduate Program Director. Annual meetings with the Graduate Program Manager are required. The first step is to submit a Plan of Study suited to your individual needs through the Graduate Program Manager.

## MS Comprehensive Examination

In addition to the coursework requirements described later in this handbook, students are required to pass a "closed-book" written comprehensive examination testing their understanding of basic concepts in the biological sciences and biotechnology. There are no course credits associated with the examination. The exam will be held twice a year, once in fall term (usually November) and once in spring term (usually April). A student must petition the Department to take this exam at least one month before the scheduled date of the exam. All students electing to take the exam in a given term must take it at the same time; there will be no "makeups." If the time of the exam conflicts with a student's class, the Graduate Program Manager must be notified immediately.

The exam will consist of two 3-hour sessions. The morning session will consist of questions drawn from the required courses of the program. The afternoon session will consist of questions pertaining to the student's elective courses and to a critique of a published research paper or other test of skill in analysis of data, which will be handed out with the exam. Each question will be graded on a scale from 4 (A) to $0(\mathrm{~F})$. The student must average 3.0 or better to pass.

A student failing this exam may be reexamined once. The student may choose to take the next scheduled written exam. Alternatively, the student may choose to take an oral exam, but no sooner than four weeks after the original exam. The oral exam committee will consist of at least three faculty members, chosen by the Department Head and the Graduate Program Manager. A second failure will result in the termination of the student from the degree program.

## Mileposts in the MS Non-Thesis Program

1. Coursework - Core Coursework must be completed first, then electives coursework can be completed.
2. Comprehensive Examination- Completion of Core Coursework is required to take this examination. Contact the Graduate Program Manager to schedule the examination.

## D. Bachelor's/Master's Dual Degree Program

The Bachelor's/Master's Dual Degree Program allows exceptionally qualified students in Biology to earn both a bachelor's degree and a master's degree in the time normally required for the undergraduate degree alone. The program is intense since it requires graduate courses to be taken within the 5 -year/3 Co-op timeframe in order to complete the requirements of both degrees in the time allotted. Interested students should see the Biology Graduate Program Manager for more specific details. The first step is to submit a Plan of Study suited to your individual needs through the Graduate Program Manager.

## Application

Exceptional students with a Drexel cumulative grade point average of at least 3.5 are eligible to apply. Students should apply to the Biology Graduate Program Committee after they have completed 90 undergraduate credits and before they have completed 120 credits, which is normally during the pre-junior year.

Students are strongly encouraged to begin planning for entry as early as their freshman year. Approvals to enter the program start with the Biology Graduate Program Committee, then the undergraduate department head, graduate department head, and finally academic dean.

## Changes in the BS Program

Students generally need to take larger course loads by their sophomore year in order to make room for graduate courses in the later years. Several courses normally taken in the senior year will be taken in the junior year. The requirements for the BS degree will be 180 credits accomplished by not requiring free elective credit. The free electives are replaced with graduate courses to satisfy the requirements for the Biology MS

## MS Program Requirements

It is anticipated that most $\mathrm{BS} / \mathrm{MS}$ students will follow the non-thesis option as outlined above. The non-thesis option requires 45 graduate credits and successful completion of the MS comprehensive examination. Up to 12 credits of BIO 997 Research can be included in the nonthesis option. A thesis option is available if a faculty member has agreed to serve as thesis adviser at the time of acceptance into the BS/MS program. In the thesis option, up to 12 credits of BIO 997 can be included among the course requirements. A student can petition the Graduate Program Committee to allow a greater number of research credits.

## III. Responsibilities of the Student

Submission of a Plan of Study. A plan of study is a description of the courses a student intends to take to fulfill their degree requirements. All graduate students must have an approved and current Plan of Study filed with the Department. Department curriculum sheets (or Plans of Study) listing the program's core requirements in the first year should be used prior to formal submittal of Form D1 at the end of the first year. All forms must be submitted to the Graduate Program Manager, who will file a copy with the Office of Graduate Studies. For the first year, any changes to the existing course plan must be filed with and approved by the Graduate Program Committee prior to the start of any classes. For the second year, and each year thereafter, the Plan of Study will be updated by the student and their Dissertation/Thesis Research Committee at each Committee meeting and filed with the Graduate Program Manager. A NonThesis MS student must have their Plan of Study approved by the Graduate Program Committee prior to starting classes each year.

Proposal. It is the responsibility of the PhD student to propose (in written form), plan, carry out and write up the research results in a doctoral dissertation format. It is the responsibility of the MS (thesis) student to propose (orally), plan, carry out and write up the research results in a MS thesis format as outlined in Haggerty Library's Thesis Manual [library.drexel.edu/files/services_documents/thesismanual.pdf].

Research Committee Meetings. Students in either the MS (thesis) or Doctoral Program must have at least one committee meeting per year (after the first year) and present a research seminar each academic year in a department-wide forum discussing their research (results obtained to date, methodological quandaries and plans for future work). The setting for this presentation can be the Graduate Student Research Seminar, provided that the Dissertation Committee attends. For PhD students, a written thesis proposal serves as the basis of the Candidacy examination at the end of the second year. Progress in these responsibilities will be evaluated by student's thesis or dissertation committees.

## Progress Report

All students are expected to submit a progress report of 1-2 pages to all committee members no later than one week prior to the scheduled committee meeting. The format is largely at the discretion of the Doctoral Committee Chair, but the Graduate Committee suggests the following outline:
A. Changes: Since the last committee meeting, have significant changes occurred in the pursuit of original research aims.
B. Progress: Describe concisely the research performed and primary results obtained since the last meeting. List all publications and manuscripts in progress.
C. Plans and Timeline: Research goals and activities proposed for next year and a tentative timeline for completion.
D. (For advanced candidates) A brief discussion of current career goals

Following the committee meeting, the Progress Report will be submitted to the Graduate Program Manager along with the two other required forms (the D3B Annual Review of Doctoral Candidate and the departmental Report of the Dissertation Committee Meeting).

## Doctoral Committee Meetings

1. Prior to each meeting, the student should meet with the Graduate Program Manager to go over the required forms. This will also serve to notify the Graduate Program Manager that a meeting is taking place.
2. All doctoral candidates are expected to have at least one committee meeting each year
3. While the student remains responsible for scheduling the meeting (using Doodle), the Graduate Program Manager may contact the student's faculty adviser and Doctoral Committee Chair in cases in which the student has gone more than a year without a meeting
4. The Graduate Committee recommended that meetings should be focused on student progress towards research aims and specific student needs (rather than serving as a detailed account of all of the student's research activity). Ideally, the meeting should last no longer than 2 hours in length and when possible can be aligned with the student's research presentation at the departmental seminar.

## Sufficiency Meeting

A penultimate meeting of a student's Doctoral Dissertation Committee, where the Committee a) confirms that the student has completed all necessary experiments and, b) gives the student the "go-ahead" to start writing up the dissertation. The student and committee should come away from this meeting with a detailed timeline for completion along the lines of:
From today, the student has $x$ months to defend, and $x-1$ months to turn the complete draft of the dissertation into the committee.

## Dissertation Fellowship

The Dissertation Fellowship is available through the Graduate College. Students must apply for the Fellowship in the quarter prior to the quarter during which they will defend. To be eligible for the Dissertation Fellowship, students must:

- Have served as a Teaching Assistant for a minimum of 8 quarters during their graduate study (and ideally served as a TA for the several quarters leading up to the application)
- Have completed all work in the lab and require the final quarter only to write up the dissertation and work on publishing papers, etc.

Details regarding the application materials can be found on the Graduate College website under Research \& Funding. Applications for the dissertation fellowship from any graduate student in Biology must be first submitted to the Graduate Program Manager for review before they are submitted to the Graduate College.

Research Publications. It is expected that the completion of a PhD dissertation will be accompanied by the production of at least one to two scientific manuscripts, suitable for publication in peer-reviewed journals. Students are also encouraged to prepare a review manuscript for publication based on their research area. This will be an extension of their thesis or dissertation literature review. It is anticipated that the completion of a MS (thesis) degree will be accompanied by the preparation of at least one scientific manuscript suitable for publication in a peer-reviewed journal. With the agreement of the Thesis Research Committee, this is not required.

## IV. Satisfactory Progress in the PhD or MS Degree Program

In order to track the progress being made by graduate students, assure that students are, indeed, making progress toward their degrees, and provide regular feedback for students, the following progress assurance and tracking program which is required for all students in PhD or MS (thesis) programs.

1) Pre-candidacy students must meet expectations during their quarterly evaluations. A Research Performance Evaluation Form (available on the department website) must be completed by the student's Dissertation Adviser and signed by both the student and adviser by the end of each quarter prior to successful completion of the PhD candidacy exam or MS (thesis) proposal defense. Research performance evaluations must be submitted to the Graduate Program Manager.
2) Students must meet with their Dissertation/Thesis Research Committee at least once each year to discuss their progress (e.g. courses completed, exams taken, research goals attained, etc.).
3) After this meeting, the Dissertation/Thesis Research Committee must notify the student and the Graduate Program Manager in writing whether the committee believes the student is making satisfactory progress toward their degree. If the Dissertation/Thesis Research Committee determines that the student is not making adequate progress, it must detail what difficulties it sees and what must be done to remedy those difficulties. Doctoral Candidates are also required to submit Form D3B (Annual Review of Doctoral Candidate) to the Graduate Program Manager once a year.
4) If a student's Dissertation/Thesis Research Committee decides the student is not making satisfactory progress, then the student is placed on probation. The student must then reconvene their Dissertation/Thesis Research Committee in the next quarter to reconsider the student's progress. Two successive reports of unsatisfactory progress will subject the student to corrective/disciplinary action, as recommended by their Dissertation/Thesis Research Committee to the Graduate Program Committee and the Department Head. Such action may include loss of eligibility for departmental financial support, probationary status or dismissal from the program. In addition, the Graduate Program Committee will consider the student's progress reports in making recommendations for TA/RA appointments.
5) It is the student's responsibility to schedule the meetings with their Research Committee and provide the documentation of progress by completing the Biology Department Report of the Dissertation Committee Meeting Form and returning it to the Graduate Program Manager. Failure to meet the Research Committee or provide the evidence of progress will also place the student on probation.

Questions regarding the applicability of the requirements described in this handbook or deviations from those requirements should be referred to and will be arbitrated by the Graduate Program Committee.

## V. TEACHING ASSISTANTSHIPS \& RESEARCH FELLOWSHIPS

## Purpose

The purposes of Teaching Assistantships and Research Fellowships are to support the teaching and research functions of the Department and to support the education of graduate students. Teaching Assistantships are awarded primarily on the basis of academic ability and performance. Appointment to teaching assistantships also requires the ability to teach effectively. The effectiveness of TA teaching will be assessed quarterly.

## Appointment procedure

1. Teaching assistantships (TAs) will be awarded to $1^{\text {st }}$ and $2^{\text {nd }}$ year PhD candidates and, whenever possible, will be made during spring term for the following academic year. Research Fellowships (RFs) will be awarded by individual faculty members, who are principal investigators holding grants and/or contracts. Students with Research Fellowships must engage in research toward the completion of their PhD Thesis.
2. The Graduate Program Committee will recommend to the Department Head candidates for graduate teaching assistantships (TAships) from among those who have applied for such appointments. Regular (full-time) TA positions are normally awarded on a yearly basis and teaching assignments will be scheduled for all 4 academic quarters.
3. Reappointment is subject to review of the student's teaching/research effectiveness by faculty and students, academic performance, satisfactory progress towards their degree, and active participation in departmental seminar series and departmental research activities. TA positions can be revoked after suitable warning if it is the determination of the Graduate Program Committee and the Department Head that the student is not performing their duties in a satisfactory way.
4. The Graduate Program Committee shall maintain a prioritized list of applicants who may be available as TAs in the event that additional teaching assistants are required. Such ad hoc appointments are made on a quarter-by-quarter basis.

## Criteria for Graduate Teaching Assistantships

1. TA support is dependent on the graduate student's academic standing, student and faculty teaching evaluations, satisfactory progress towards their degree, and active participation in departmental seminar series and departmental research activities.
2. Regular (full-time) TAships are awarded only to full time PhD students.
3. During the Fall term, new TAs are required to take EDUC 775 Teaching Assistantship to support their college teaching. This is a 1-credit course which carries no tuition charges.
4. All international students with a Teaching Assistantship are required to take the SPEAK exam which tests for oral proficiency. This test is given as part of the ITA Program or upon your arrival to Drexel. Students must successfully pass the SPEAK exam with a minimum score of 55 by the end of their third term.
5. New, entering PhD students are guaranteed a TA position for their first two years in the graduate program, assuming they maintain satisfactory academic progress and receive satisfactory teaching evaluations.
6. Post-candidacy PhD students are eligible for TA positions when research assistantships are not currently available in the thesis laboratory. However these TA positions are not guaranteed and will be limited in number.
7. TA appointments will be made in such a manner as to assure wide and diverse representation from all academic areas of the Department.

## Assignment and Duties of Teaching Assistant

1. Teaching assistantships are awarded on a competitive basis by the Department Head from a prioritized list maintained by the Graduate Program Committee.
2. Assignment of TAs to specific courses shall be judged based on academic record, GRE and TOEFL scores (international students), letters of recommendation, and the personal statement in the graduate application.
3. Faculty can notify the Graduate Program Committee of applicants with special skills needed to teach particular courses.
4. Duties of TAs shall be established by the supervising faculty member in consultation with the TAs at the beginning of each quarter.
5. The activities required for a regular (full-time) assistantship require 20 hours/week on average.

## Field Season Policy

TAs with research that requires field work (domestic or abroad) are allowed a one term exemption for a Field Season during the academic year. TAs that opt for this exemption will have additional TA responsibilities in another term or terms during the year. Field Season notification is expected at the beginning of each academic year so that TA numbers are accurately projected for the year.

## Doctoral Student Leave

Doctoral students are allowed approved leave for the observance of traditional and religious holidays. All requests for any other leave must be made to and approved by the Program graduate adviser and the student's supervising professor (if any) prior to the start date of the leave. Any leave beyond two weeks (ten working days) must be approved, in addition, by the Office of Graduate Studies. If a student takes an unapproved leave, his/her stipend/health insurance and other funding may be suspended.

## VI. Graduate Curricula

The various curricula in the graduate programs are designed to provide a sound professional education, which encompasses the factual, theoretical concepts, and research skills and training. Below are the suggested curricula for the major academic tracks within the department. In addition, students may create an individualized curriculum with consultation and permission of their Research Committee and the Graduate Program Committee.

## MS thesis \& PhD students

The faculty of these disciplines feel it is important for each student to be conversant at an advanced level with the material in biochemistry, cell biology, genetics and molecular biology. Therefore during the first year of study there is a flexible core curriculum that provides a strong understanding of general concepts of these disciplines. The second year provides a range of more advanced and specialized topics as elective courses. This core sequence is advisery to individual Research Committees (once constituted), since they can recommend specific courses based on individual student's background and needs. MS students may take up to 12 credits of research.

## Required Seminars

All PhD and MS (thesis) graduate students are required to attend the Graduate Student Research Seminar/Departmental Seminar on Tuesdays from 3:30pm - 4:50pm. With the exception of first year students, all PhD students are required to present in Graduate Student Research Seminar once per academic year. Second and third year students will be give 15-20 minute seminars, while fourth and fifth year student will give 30-45 minute seminars. A schedule will be generated by the beginning of the fall term.

## First Year Required Courses* (6 credits per term)

Fall

- BIO 540 Readings in Molecular \& Cellular Biology and Biochemistry (3 credits)
- Distribution or Computational Requirement (3 credits)


## Winter

- BIO 679 Issues in Scientific Research (3 credits)
- Distribution Requirement (3 credits)


## Spring

- BIO 601 Research Methods (3 credits)
- Distribution or Computational Requirement (3 credits)

Distribution Requirements all students must take. Choose 3 of the following 6:

- BIO 500 Biochemistry
- ENVS 626 Molecular Ecology
- BIO 613 Genomics
- BIO 635 Advanced Genetics \& Molecular Biology
- BIO 532 Advanced Cell Biology
- BIO 636 Human Population Genetics

Computational Requirement. Choose 1 of the following 3.

- BIO 631 Bioinformatics
- ENVS Biostatistics
- Any other requirement approved by committee to meet the computational requirement.
*Requirements may be waived by the Graduate Program Committee or the Dissertation Research Committee, once it is constituted, based on the student's academic record. If a waiver is granted, an appropriate elective course will be substituted for the required course.


## $\mathbf{2}^{\text {nd }}$ year: PhD and MS (Thesis)

Second year post-baccalaureate students take 9 credits per term ( 6 elective credits and 3 research credits). Second year post-master's students take 6 credits of electives per term.

## Required:

Electives: Two electives will be offered per quarter and each elective offered at least every other year. Please consult the Schedule of Classes [https://duapp2.drexel.edu/webtms_du/app] for specific course offerings.

Candidacy Written Exam. At the end of the second year, the Dissertation Research Committee in consultation with the student will choose three biology sub-disciplines in which the student will be required to show expertise. These areas must be sufficiently diverse to demonstrate the student's depth and breadth of knowledge. For questions outside the areas of expertise of the Dissertation Research Committee, experts will be recruited to join the PhD Candidacy Committee. The student will prepare written answers to questions in each of the areas in the form of a review of the literature. It is recommended that the Dissertation Adviser contribute questions only in exceptional circumstances, with the approval of the PhD Candidacy Committee. After receiving the questions from the committee, students have up to three weeks to submit answers to the Committee for grading on a pass/fail basis. The remaining oral portion of the Candidacy exam is described on page 7-8. After successful completion of the candidacy exam, students should register for 7.5 credits of PhD Research (BIO 997) and 1.5 credits of the Graduate Research Seminar each subsequent term.

## APPENDICES

## I. BIOLOGY GRADUATE STUDENT ASSOCIATION (BGSA)

BGSA Officers for 2015-2016

President<br>Vice President<br>Treasurer<br>Secretary<br>Social Chair<br>Community Chair<br>Academic Chair

Molly Mitchell<br>R. Vivian Allahyari<br>Maria Berezin<br>Kayla Murphy<br>Steve Mason<br>Tania Del Rivero<br>mem455@drexel.edu rva26@drexel.edu<br>mlb365@drexel.edu klm434@drexel.edu<br>scm77@drexel.edu<br>td462@drexel.edu

## CONSTITUTION

We, the graduate students of the Drexel University Department of Biology, through the establishment of this Constitution on the $1^{\text {st }}$ day of June 2005, do hereby empower the officers of the Biology Graduate Student Association to work on our behalf in order to encourage a constructive relationship between the students, faculty, staff and administration of the department of Biology at Drexel University; to represent the diverse interests and needs of graduate students within the department and to the Drexel community; to provide a channel for the communication of graduate student ideas; and to provide services that will benefit and protect the interests of Drexel's graduate students in the Department of Biology.

## ARTICLE I: Name

The name of this organization shall be the Drexel University Department of Biology Graduate Student Association, hereinafter referred to as the BGSA.

## ARTICLE II: Object

The Association will:

1. Provide a forum for information exchange between graduate students and faculty and administration, such as but not limited to, issues regarding course development, teaching and research assistant responsibilities, departmental research environment and activities, and expectations for degree fulfillment.
2. Encourage an active social environment among existing, new, and prospective graduate students.
3. Elevate the academic experience for both graduate and undergraduate students in the Biology Department, advance the research environment, and set the stage for high-quality graduate student and faculty recruitment.

## ARTICLE III: Membership

Membership in BGSA is open to all full- and part-time graduate students in the Department of Biology regardless of degree program, race, religion, national origin, gender, sexual orientation, or ability as long as they are enrolled at the university. Attendance at one general meeting or participation in a scheduled event or election per year is required to be considered active. Active Members will be used to determine quorum and total active membership for voting procedures.

Undergraduate students, research technicians, staff, and faculty will be encouraged to participate in meetings and activities, but will not receive privileges of membership.

## ARTICLE IV: Students Rights

1. All graduate students that are current members of the BGSA have the right to vote in the BGSA elections and referendums.
2. All graduate students have the right to speak and be heard at the General Meetings.
3. All graduate students have the right to serve on BGSA committees.
4. All graduate students have the right to reasonable access to official BGSA information and records. This means, but not limited to, official meeting records and candidate applications for election or appointment.
5. All graduate students have the rights and responsibilities defined in the University's Student Handbook and these rights cannot be impeded by the BGSA.

## ARTICLE V: Officers

The offices of President, Vice President, and Treasurer are reserved for full-time graduate students. Other offices and positions may be held by any graduate student in the Department of Biology.

Terms will be yearly and mirror the academic calendar beginning in the fall term.
All offices must be actively fulfilled at all times. In the event that the President, Vice President, or Treasurer amends his or her status from full-time to part-time during the term or if any officer leaves the Department or University, the vacant office will be filled by open election.

## Elections

1. Elections will be by anonymous ballot and will occur in the following order, allowing one person to run for multiple offices based on outcome of each election: President, Vice President, Treasurer, Secretary, Social Chair, and Academic Chair.
2. Elections will take place during the final meeting of the Spring term, as scheduled by the acting Executive Board.
3. Election meetings will be considered mandatory and must be scheduled at such a time and location as to guarantee election by popular vote by two-thirds quorum of Active membership at meeting or by absentee vote to Secretary prior to meeting.
4. A member wishing to run for an office must submit his or her name to the Executive Board no later than two weeks prior to the election, and must state the following: name, degree status, intended graduation date, all offices of interest, and a short summary to the specifications of the Executive Board generally stating why the individual is interested and a suitable candidate for a preferred office.
5. All candidates who want to be considered for an Executive Board Office must be in good academic standing with the University during the term in which elections are held and must meet the following requirements:
a. Each candidate must have a 3.0 cumulative grade point average.
b. Each candidate must be a full-time graduate student
c. Each candidate may not have a standing judicial sanction.

Eligibility will be verified by the Adviser in consultation with the Department Head.
6. All candidates must attend an information session before campaigning begins.

## President

1. The President shall be the official representative of the Biology graduate student body.
2. The President will be responsible for organizing and overseeing both General and Executive Board meetings.
3. He or she will directly interact with the Vice President, Treasurer, Secretary, Social Chair, and Academic Chair to fulfill the obligations of the Executive Board to the general membership.
4. He or she will be responsible for interaction with the University. The President will also establish and dissolve ad hoc committees to meet the changing needs and goals of the Association.

## Vice President

1. The primary responsibility of the Vice President will be to act as the Association liaison to the Faculty and Staff of the Department of Biology.
2. The Vice President will be a member on the Graduate Committee, thus being required to attend all of their meetings or send a representative in his or her place.
3. The Vice President will also fulfill all duties in the absence of the President.

## Treasurer

1. The Treasurer will be fully responsible for organizing the financial resources of the organization, allocating funds, and maintaining a workable budget which is to be approved by the Executive Board.
2. As a result of these responsibilities, the Treasurer will work closely with the President, the Faculty Adviser, and the Office of Campus Activities.

## Secretary

1. The Secretary will be responsible for organized information exchange within the organization, such as but not limited to, recording and maintaining minutes of meetings, maintaining an updated membership roster, contact information, web site, and list-serve.
2. The Secretary will schedule rooms as needed, post meeting times and locations, and maintain an attendance record and minutes of all meetings.
3. The Secretary will be responsible for determining active membership and a two-thirds quorum for general elections and will receive absentee ballots and excuses for inability to attend the mandatory events.

## Social Chair

1. The Social Chair will organize and advertise social events for Members on a regular basis.
2. The activities of the Association will reflect the diverse backgrounds and interests of its Members. No social events will be considered mandatory.

## Academic Chair

1. The Academic Chair will organize and advertise activities to increase the academic and research-oriented experience in the Department of Biology. Academic activities may include regular journal clubs, tutoring services for undergraduates, seminars, exhibitions, bulletin board displays, and departmental events.
2. The Academic Chair will be responsible for disseminating information on learning opportunities within and outside of the Department and University that may be of interest to Members.
3. The Academic Chair will oversee the activities of the Standing Committees.

## ARTICLE VI: Advisers

A tenure track or tenured Faculty Adviser must be in place at all times. The Adviser will be expected to attend Executive Board meetings and will be invited to attend all other events. A candidate for Adviser must display interest in the position and be chosen by the Executive Board. The term of Adviser will not be limited by academic year and the position will only be filled when necessary by resignation or removal by the Executive Board. The BGSA may appoint secondary advisers, if necessary, from within the Department of Biology to assist the Faculty Adviser. The secondary adviser must be full-time faculty or staff of the department.

## ARTICLE VII: Executive Board

The primary function of the BGSA Executive Board shall be to ensure that the BGSA functions properly and effectively. Executive Board will consist of the Faculty Adviser, President, Vice President, Treasurer, Secretary, Social Chair, and Academic Chair. The Executive Board will be responsible for addressing the demands, concerns, and interests of Members. The Executive Board will determine meeting agendas, schedule all meetings and events, and determine if a particular event should be considered mandatory. Mandatory status, as determined by the Executive Board, will be reserved for meetings or events where full participation is considered essential for the future of the organization, such as elections. Consequences for not participating in mandatory events will be determined on a case-by-case basis by the Executive Board and may include impeachment proceedings, suspension from active membership, suspension from an event, or other such measures.

## ARTICLE VIII: Standing Committees

Standing committees will be available to focus activities, both social and academic, on specified disciplines within the diverse interests of the Department of Biology. The standing committees will include: Nutrition, Molecular/Cell Biology, and Environmental Science

A Member is not limited to participation with only one committee, but may be involved in any committee of interest. Standing Committees will consist of Members, non-members, and a Committee Chair that will report to the Academic Chair. The Committee Chair will be elected by the Committee Members under the direction of the Academic Chair.

## ARITCLE IX: Meetings

1. General meetings will not be mandatory, while Executive meetings and elections will be considered mandatory.
2. All general meetings of the BGSA are open to all graduate students. All those in attendance shall be permitted to debate.
3. All Officers of the BGSA shall be required to attend all BGSA meetings or send a representative in his or her place. Attendance will be taken at each meeting.
4. Any Active Member of the BGSA may initiate legislation.
5. All legislation and resolutions, within the limitations of this Constitution, shall be final and binding and may only be amended by approval of the Executive Board and a twothirds vote of the total BGSA membership. If necessary, absentee ballots may be submitted to the Secretary by email prior to the scheduled meeting.
6. There will be at least one 20 minute period during each General Meeting to allow students to express their ideas and concerns to the BGSA.

## ARTICLE X: Impeachment

Upon the initiation of the impeachment process, the Executive Board shall inform the respondent of the impeachment at least five calendar days before the hearing. At this time all evidence should be available to the respondent upon request, for the formulation of their defense. The impeachment hearing will take place at the next scheduled General Meeting. Impeachment will be accomplished by a popular vote by a two-thirds quorum of Active Members at meeting or by absentee vote to Secretary prior to meeting.

## ARTICLE XI: Vacant Positions

1. A vacant position shall be made public by the Executive Board through meetings, advertisements, etc. no more than one week after the position becomes vacant.
2. Vacant positions shall be filled by using the appointment process or the elections process.
3. All candidates will be interviewed by the Executive Board and attend an information session.
4. All candidates will be presented to the Membership for election by plurality vote.
5. If the election process is chosen, all regular elections procedures shall be employed.

## ARTICLE XII: Alternatives and Representatives

1. A substitute is someone who is sent to a single meeting by a standing officer who is unable to attend that meeting. This person may not vote or introduce legislation. $\mathrm{He} / \mathrm{She}$ is there solely to give and receive information.
2. A representative is someone who is appointed by a standing officer when he/she cannot attend at least two Executive Board Meetings in a row. The representative will have all the rights and responsibilities of the officer he/she is representing that pertain to Executive Board meetings once a memo stating this intention from the original officer is received by the Secretary. This is a temporary appointment and cannot last for more than one term. An approval from the Executive Board and Faculty Adviser is necessary to extend this appointment.

## ARTICLE XIII: Ratification

Ratification of this Constitution will be accomplished by a majority vote by Active Membership.

## ARTICLE XIV: Amendments

Proposed amendments must be submitted to Executive Board at least two weeks before discussion at General Meeting. Amendments will be adopted by a majority vote of Active Members at meeting or by absentee vote to Secretary prior to meeting.

## ARTICLE XV: Dissolution

Dissolution of the Organization may be accomplished by order of the Office of Campus Activities or voluntarily by a popular vote by a majority vote of Active Members at meeting or by absentee vote to Secretary prior to meeting.

## II. Academic Integrity

All members of the Department of Biology are firmly committed to zero-tolerance of academic dishonesty. Infractions can result in total loss of credit for exams and/or projects, failure of the course or dismissal from the program.

What follows is a brief description of examples of academic dishonesty from The Judicial Review Board of Drexel University.

## For a complete description of Academic services and policies go to: http://www.drexel.edu/cchc/studentlife/

In order to fully articulate its commitment to academic integrity and to protect members of its community from the results of dishonest conduct, the University has adopted policies intended not only to emphasize the imperative of integrity, but also to protect the rights of all members of the University community.
Cheating, plagiarism, and dishonesty will result in severe penalties, including expulsion from the University.

## Cheating

No student shall engage in an act or an attempted act of deception by which a student seeks to misrepresent that he or she has mastered information on an academic exercise that he or she has not mastered. Examples include, but are not limited to:

- Copying from another test paper;
- Allowing another student to copy from a test paper;
- Unauthorized use of course textbook or other materials such as a notebook to complete a test or other assignment from the faculty member;
Collaborating on a test, quiz, or other project with any other person(s) without authorization; - Using or processing specifically prepared materials during a test (e.g., notes, formula lists, notes written on the student's clothing, etc.) that are not authorized;
- Taking a test for someone else or permitting someone else to take a test for you.

Violation(s) of the cheating policy is grounds for separation, via suspension or expulsion, from the University.

## Fabrication

Fabrication is the use of invented information or the falsification of research or other findings. Examples include, but are not limited to:

1. Citation of information not taken from the source indicated. This may include the incorrect documentation of secondary source materials;
2. Listing sources in a bibliography not used in the academic exercise;
3. Submission in a paper, thesis, lab report, or other academic exercise of falsified, invented, or fictitious data or evidence, or deliberate and knowing concealment or distortion of the true nature, origin, or function of such data or evidence;
4. Submitting as your own written work, printing, sculpture, etc. prepared totally or in part by another.

## Plagiarism

No student shall engage in an act or an attempted act of plagiarism, which is defined as the inclusion of someone else's words, ideas, or data as one's own work. When a student submits work for credit that includes the words, ideas, or data of others, the source of that information must be acknowledged through complete, accurate, and specific references, and, if verbatim statements are included, through quotation marks as well. By placing his/her name on work submitted for credit, the student certifies the originality of all work not otherwise identified by appropriate acknowledgments.

Plagiarism covers unpublished as well as published sources, including sources obtained electronically. Examples of plagiarism include, but are not limited to:

- Quoting another person's actual words, complete sentences or paragraphs, or an entire piece of written work without acknowledgment of the source;
Using another person's ideas, opinions, or theory, even if it is completely paraphrased in one's own words without acknowledgment of the source;
- Borrowing facts, statistics, or other illustrative materials that are not clearly common knowledge without acknowledgment of the source;
- Copying another student's essay test answers;
- Copying, or allowing another student to copy, a computer file that contains another student's assignment, and submitting it, in part or in its entirety, as one's own;
- Working together on an assignment, sharing the computer files and programs involved, and then submitting individual copies of the assignment as one's own individual work.

Violations of the plagiarism policy is grounds for separation, via suspension or expulsion, from the University.

## Academic Misconduct

Academic misconduct includes other academically dishonest acts such as tampering with grades or taking part in obtaining or distributing any part of an administered or unadministered test. Examples include, but are not limited to:

1. Stealing, buying, or otherwise obtaining all or part of an administered or un-administered test;
2. Selling or giving away all or part of an administered or un-administered test including questions and/or answers;
3. Bribing any other person to obtain an administered or un-administered test or any information about the test;
4. Entering a building or office for the purpose of changing a grade in a grade book, on a test, or on other work for which a grade is given;
5. Changing, altering, or being an accessory to the changing and/or altering of a grade in a grade book, on a test, a "change of grade" form, or other official academic records of the University that relate to grades;
6. Entering a building or office for the purpose of obtaining an administered or un-administered test;
7. Continuing to work on an examination or project after the specified allotted time has elapsed;
8. Any buying or otherwise acquiring any theme report, term paper, essay, computer software, other written work, painting, drawing, sculpture, or other scholastic art work, and handing it in as your own to fulfill academic requirements;
9. Any selling, giving, or otherwise supplying to another student for use in fulfilling academic requirements, any theme, report, term paper, essay, computer software, other written work, painting, drawing, sculpture, or other scholastic artwork.
