

# **Department of Biology**

**College of Arts and Sciences** 

**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 required since it provides a proof 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.

This handbook has been designed to provide guidance to current and prospective 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 programs, however, first year students are encouraged to schedule an early appointment with Susan Cole, the Graduate Program Advisor, or with Elias Spiliotis, Ph.D., the Graduate Program Director, to answer your specific questions and to develop the first draft of the <u>Plan of Study</u> 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 Office of Research and Graduate Studies website at <a href="https://www.drexel.edu/provost/graduatestudies/">www.drexel.edu/provost/graduatestudies/</a> under Forms, Doctoral Student Forms. M.S. Thesis students should consult the Graduate Program Advisor for appropriate forms. All forms must be submitted to the Graduate Program Advisor prior to being forwarded to the Office of Research and Graduate Studies.

**Special circumstances** – The Department of Biology offers a number of degree programs and educates both full-time and part-time graduate students. The department's Graduate Committee recognizes that deviation from the guidelines presented in this handbook may be necessary in special circumstances. Graduate students and/or their faculty advisors may petition the Graduate 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 (Ph.D.) 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 (post-masters 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.

A summary of the Ph.D. program requirements and timelines are given in Table 1. 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 Ph.D. 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 Advisor, 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 the graduate coursework will be completed during the first two years. Students will register for classes for 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, post-baccalaureate 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<sup>nd</sup> year, student entering with a Master's degree are required to complete 15 credits by the end of their 1<sup>st</sup> year. After completing the required coursework, students generally fulfill the credit requirements of a full-time graduate student by registering for disseration research (Bio 897). Students must maintain a cumulative grade point average (GPA) of at least a 3.0.

The progress of each student is reviewed each term by departmental graduate 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 Ph.D. and M.S. (Thesis) graduate students are required to attend the Departmental Seminar/Graduate Student Research 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 20-25 minute seminars, while forth and fifth year student will give 30-45 minute seminars. A schedule will be generated by the beginning of the fall term.

#### **Dissertation Research**

Selecting a dissertation advisor 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, most first year PhD students are recruited directly into specific faculty laboratories during the admission process. Some students choose their dissertation advisor through laboratory rotations.

		Post-Baccularate students entering PhD Program		
Year	Quarter	Classwork	Research	Cmtes/Exams
1	F	Core Courses	Identify research mentor	
	W	Core Courses	w	
	Sp	Core Courses	Choose research topic	
	Su	no classes	Collect Preliminary data	Develop thesis proposal
2	F	Electives/Required	"	Form Dissertation Cmte
	W	Electives/Required	"	Initial Cmte meeting
	Sp	Electives/Required	"	Candidacy Examination
	Su	no classes	Dissertation Research	Candidacy Examination
3/4/5	F		"	
	W		"	1 cmte mtg / yr
	Sp		"	,
	Su		"	
				Dissertation Defense

		Post-Masters students entering PhD Program		
Year	Quarter	Classwork	Research	Cmtes/Exams
1	F	Core Courses	Identify research mentor	
	W	Core Courses	Choose research topic	Develop thesis proposal
	Sp	Electives/Required	"	Form Dissertation Cmte
	Su	no classes	Dissertation Research	Candidacy Examination
2	F	Electives/Required	"	
	W		"	1 cmte mtg / yr
	Sp		"	
	Su		"	
3/4/5	F		n,	
	W		"	1 cmte mtg / yr
	Sp		"	
	Su		"	
				Dissertation Defense

Table 1. Summary of Ph.D. program requirements and timelines.

## **Laboratory Rotations**

For first year students who have not decided on a dissertation advisor, laboratory rotations offer a mechanism for them to experience research in two or three different laboratories. Based on students indicated preferences, the first rotation assignment will be

assigned and will last from September 20 until November 8. The second rotation will begin November 15 and end January 21. The third rotation will begin January 24<sup>th</sup> and end March 18<sup>th</sup>. Students must inform the graduate program advisor by October 15<sup>th</sup> and January 1<sup>st</sup> which faculty the student will rotate with for their second and third rotations, respectively. Two or three eight-week rotations are typical. The faculty member sponsoring your rotation will complete a rotation evaluation form at the completion of the rotation. This form will be shared with the graduate committee and any faculty member that sponsoring future rotations for the same student.

#### **Selection of Dissertation Advisor**

By the end of the second quarter of the first year, Ph.D. students should have selected their Dissertation Advisor. Careful and early consideration must be given to the selection of an appropriate research area and Advisor. 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 Advisor 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 Advisor and a research problem, then the student will not be allowed to continue in the program. The Dissertation Advisor 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 institutions; however, prior approval must be obtained from the Graduate Program Committee and the Department Head. The off-site research advisor would become a member of the Dissertation Research Committee and the student must enlist a tenured departmental faculty member to serve as Dissertation Advisor.

#### **Dissertation Research Committee**

In consultation with the Dissertation Advisor, a Committee will be selected to guide the progress of the Ph.D. student. For students entering with a Master's degree, this committee must be formed and meet by the end of the spring quarter of the first year. For students entering with a Bachelor's degree, 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 their primary appointment in the Biology department, one of whom is the student's Dissertation Advisor. At least two of the committee members must be from outside the student's major research area. 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 Advisor. It is recommended that the Chair be a tenured faculty member whenever possible, but 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 advisor may petition the Graduate Committee to modify the guidelines on an individual basis.

The student will conduct dissertation research under the direct supervision of the Dissertation Advisor and 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 Disseration 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 Advisor 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 Ph.D. 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 <u>Ph.D.</u> <u>Candidate</u> only after successfully completing the Candidacy Examination and completing 15 or 45 credits (for post-master's or post-bachelor's degree students, respectively).

Students entering the program with a Master's degree are expected to complete the candidacy examination by the end of the summer quarter of their first year. Students entering the PhD program with a Bachelor's degree 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 candidacy exam at least 4 weeks in advance of the oral exam.

The candidacy exam is comprised of three parts whose order will be determined by the 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 Ph.D. 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 constratints.

It is expected that the student will have been developing the proposal in consultation with the Dissertation Advisor 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.
- **4. 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 Ph.D. candidate and must submit **Forms D2 and D2A** to the Graduate Advisor 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 Dissertation Research (BIO 998).

**Dissertation.** The student will finalize their Dissertation only after approval to write is granted by the Dissertation Research Committee. The student should have published at least one first-author research paper and acquired enough data for a second first-author publication prior to scheduling their dissertation defense. Alternatively, 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 Research and Graduate Studies University. Formal appointment of the Dissertation Research Committee follows submission of **Form D3** to the Graduate Advisor and to the Office of Research and 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 of Research and Graduate Studies four weeks in advance, using **Form D5**. 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 Advisor. The Dissertation must be submitted in the thesis format outlined in Haggerty Library's Thesis Manual and include the **Thesis Approval Form** before the student shall receive the Ph.D. degree.

#### Mileposts in the Ph.D. Program

- 1. Selection of Dissertation Advisor Rotations Students must select a Dissertation Advisor by the beginning of Spring 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 Ph.D. student is expected to complete their dissertation defense within 5-6 years. Drexel University requires that the dissertation be finished within 7 years.

## **B. The Master of Science Degree with Thesis**

The Master's degree with thesis is for students interested in advanced graduate coursework and experience in completing an original research project. Students should choose a research advisor 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 Advisor, the Thesis Research Committee, and the Graduate Program Committee.

#### Coursework

The Master's degree requires 45 credits beyond the Bachelor's degree, part of which will be credits for research and thesis. The first step is to submit a plan of study suited to your individual needs through the Graduate Advisor.

#### Master's Thesis Research

**Committee.** Research for the thesis is conducted under the guidance of the student's Thesis Advisor and Thesis Research Committee. The Thesis Advisor must be a faculty member in the department and must agree to serve as advisor. The student's Committee consists of at least three faculty members, of which at least two are from the Department. The Chair of the Thesis Committee shall be a departmental tenure-track faculty member who is not the thesis advisor and preferably tenured. Submit Forms D1 through the Graduate Advisor.

**Research**. The student will conduct thesis research under the direct supervision of the Thesis Advisor and general guidance of the Thesis Research Committee. Masters (Thesis) students are not expected to complete the laboratory rotations described above for Ph.D. 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. One of these meetings will coordinate with the student's annual Graduate Research Seminar presentation.

**Thesis Proposal.** Within one year of entering the program, the student must orally present and defend their Master Thesis proposal to the Thesis Research Committee. Committee members may examine the M.S. student on subject matter related to their thesis project. Submit Form D6 to the Graduate Program Committee, through the Graduate Advisor.

**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 M.S. degree. Submit Form D7 and Thesis Approval Form to the Graduate Program

Committee, through the Graduate Advisor.

Any student passing the Master's thesis defense may apply to transfer to the Departmental Ph.D. program through the Office of Research and Graduate Studies. The application will be forwarded to the Graduate Committee for their recommendation to the Department Head.

## Mileposts in the M.S. Thesis Program

- 1. *Advisor* Students must be accepted into the laboratory of their Thesis Advisor 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 M.S. 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 master's 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 4 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 Departmental Graduate Advisor. Annual meetings with the Departmental Graduate Advisor are required. The first step is to submit a Plan of Study suited to your individual needs through the Graduate Advisor.

## M.S. Comprehensive Examination

In addition to the courses 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. Everyone electing to take the exam 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 Advisor 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 area of specialization 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(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 Advisor. A second failure will result in the termination of the student from the degree program.

#### Mileposts in the M.S. 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 sit for this examination. The examination is offered every fall and spring, contact the graduate program advisor 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 Coop timeframe in order to complete the requirements of both degrees in the time allotted. Interested students should see the Biology Graduate Advisor for more specific details. The first step is to submit a Plan of Study suited to your individual needs through the Graduate Advisor.

## **Application**

Exceptional students with a Drexel cumulative grade point average of at least 3.0 are eligible to apply. Students should apply to the Biology Graduate 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 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 BS/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 4 credits of BIO 997 Research can be included in the non-thesis option. A thesis option is available if a faculty member has agreed to serve as thesis advisor at the time of acceptance into the BS/MS program. In the thesis option, up to 9 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 Advisor, who will file a copy with the Office of Research and Graduate Studies. For the first year, any changes to the existing course plan must be filed with and approved by the Graduate 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 Advisor. A Non-Thesis Masters 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 Ph.D. 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 Thesis Masters student to propose (orally), plan, carry out and write up the research results in a Master's thesis format as outlined in Haggerty Library's Thesis Manual.

**Research Committee Meetings.** Students in either the Thesis Masters or Doctoral Program must have at least one committee meeting per 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 Ph.D. 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.

**Research Publications.** Completion of a Ph.D. dissertation should be accompanied by the production of at least two first author research papers. 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 M.S. (thesis) degree will be accompanied by the preparation of a 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 Ph.D. or M.S. 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 Ph.D. or Masters with thesis programs.

- 1) Students must meet their Dissertation/Thesis Research Committee <u>at least</u> once each year to discuss their progress (e.g. courses completed, exams taken, research goals attained, etc.).
- 2) After this meeting, the Dissertation/Thesis Research Committee must notify the student and the Graduate Advisor 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. The Chair of the Dissertation/Thesis Research Committee will file a Graduate Student Progress Report with the Department Graduate Advisor.
- 3) 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.
- 4) It is the student's responsibility to schedule the meetings with their Research Committee and provide the documentation of progress. 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. GRADUATE ASSISTANTSHIPS

## **Purpose**

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

## **Appointment procedure**

- 1. Teaching assistantships (TAs) will be awarded to Ph.D. candidates and, whenever possible, will be made during spring term for the following academic year. Research assistantships (RAs) will be awarded by individual faculty members whom are principal investigators holding grants and/or contracts.
- 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) TAships 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. TAships 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 Ph.D. 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 Ph.D. students are guaranteed a TA position for their first two years in the graduate program, assuming they maintain satisfactory progress academically and receive satisfactory teaching evaluations.
- 6. Post-candidacy Ph.D. 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. Assignment of TA's 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.
- 8. Faculty can notify the Graduate Program Committee of applicants with special skills needed to teach particular courses.
- 9. 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 Committee.
- 2. Duties of TAs shall be established by the supervising faculty member in consultation with the TAs at the beginning of each quarter.
- 3. 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.

## 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.

## Cellular and Molecular Biology (CMB) M.S. & Ph.D. 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 advisory to individual Research Committees, once they are constituted, since they can recommend specific courses based on individual student's background and needs. M.S. Thesis students may take up to 9 credits of research credits

## **Required Seminars**

All Ph.D. and M.S. (Thesis) graduate students are required to attend the Departmental Seminar series on Tuesdays from 3:30 – 5:00 pm (PISB 104). 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 forth and fifth year student will give 30-45 minute seminars. A schedule will be generated by the beginning of the fall term.

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

Fall
BIO 500 Biochemistry I (3 credits)
BIO 532 Advanced Cell Biology (3 credits)

Winter

BIO 540 Readings in Molecular & Cellular Biology and Biochemistry (3 credits) BIO 635 Advanced Genetics and Molecular Biology (3 credits)

bio 033 Advanced Genetics and Molecular Biology (3 ch

Spring

NFS 601 Research Methods (3 credits) ENVR 506 Biostatistics (3 credits)

<sup>\*</sup>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.

## CMB 2<sup>nd</sup> year (Ph.D. and M.S. Thesis)

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

## Required:

BIO 679 Issues in Scientific Research (3 credits)

**Electives**: Two electives will be offered per quarter and each elective offered at least every other year. Please consult the class scheduling list for specific course offerings.

Course #	Course Title
BIO 530	Microbial Genetics
BIO 566	Endocrinology
BIO 610	Biochemistry of Metabolism
BIO 615	Proteins
BIO 620	Biomembranes
BIO 630	Cell Biology of Disease
BIO 631	Bioinformatics
BIO 644	Human Genetics
BIO 649	Recombinant DNA Laboratory
BIO 650	Virology
BIO 663	Molecular Mechanisms of Neurodegeneration
BIO 670	Medical Microbiology
BIO 675	Advanced Immunology
BIO 997	Research
	Additional graduate-level courses offered in
	other departments and/or at Drexel University
	College of Medicine may be taken with
	approval of the Dissertation Research
	Committee

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 Ph.D 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 Advisor contribute questions only in exceptional circumstances, with the approval of the Ph.D 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 6. After successful completion of the candidacy exam, students should register for 1 credit of Ph.D. Research (BIO 997) each term thereafter.

## **Ecology and Environmental Science (EE) M.S. & Ph.D. students**

The faculty in these disciplines feel it is important for each student to be particularly conversant at an advanced level in ecology and evolution. Therefore, during the first year of study there is a flexible core curriculum that provides a strong understanding of advanced concepts in these disciplines. The second year provides a range of more advanced and specialized courses through electives that are chosen in consultation with the student's Dissertation Research Advisor and Dissertation Research Committee. It is assumed that students in this discipline will have a Dissertation Research Advisor upon entering the program, who will advise the student on curriculum. The schedule below is typical for first year students. Once the student's committee is constituted, an individualized course sequence will be recommended, taking into account the student's existing knowledge, fields of study, and research and career goals. M.S. Thesis students may take up to 9 credits of research credits.

Recommended First Year EE Course of Study			
Ecology Emphasis	Paleontology .	Emphasis	
F	all		
ENVR 538 Biodiversity and Conservation (3 credits)	Elective (3 credits)		
ENVS 501 Chemistry of the Environment (ENVS only) (3 credits)	Elective (3 credits)		
Graduate Stu	ident Seminar		
Departmen	tal Seminar		
Wi	nter		
ENVR 511 Evolutionary Ecology (3 credits)	ENVR 511 Evolutionary Ecology (3 credits)		
ENVR 865 Population Ecology or ENVR 865 Community Ecology (3 credits)	Elective (3 credits)	or Field Season (6 credits)	
Graduate Student Seminar			
Departmental Seminar			
Spring			
ENVR 611 Aquatic Ecology (3 credits)	ENVR 520 Field Methods in Paleoecology (3 credits)		
ENVR 506 Biostatistics (3 credits)  NFS 601 Research Methods (3 credits)			
Graduate Student Seminar			
Departmental Seminar			
Summer			
Some combination of coursework, fieldwork, and lab work			

Candidacy Written Exam. At the end of the second year, at the time of the rest of the Candidacy exams, the Dissertation Research Committee in consultation with the student will choose three sub-disciplines for examination from the following areas: 1) the biology of extant organisms; 2) ecology; 3) geoscience; 4) paleontology, or: 5) environmental science. These areas will be appropriate for the student's research interests and background, but 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 Ph.D Candidacy Committee. The student will prepare written answers to questions in each of the areas. The duration, content, & format of the written examination will be determined by the committee. The Chair of the Dissertation Committee will distribute the submitted answers to each member of the Dissertation Research Committee so that all members can assess the candidate's progress. The Committee will meet and evaluate the answers to the examination on a pass/fail basis. The remaining oral portion of the Candidacy exam is described on page 6. After successful completion of the candidacy exam, students should register for 1 credit of Ph.D. Research (BIO 997) each term thereafter.

#### **Human Nutrition Ph.D. Students**

#### **Curriculum for PhD students in Human Nutrition**

All Ph.D. graduate students are required to attend the Graduate Student Research Seminar and the Department Seminar Series each term. Attendance at the Nutrition and Foods journal club also is required.

Students pursuing a PhD will follow the first year master's curriculum until formation of their Dissertation Research committee. The committee will then determine a course of study fitting each individual student's need that contains the following required courses:

Required co	_Credits	
BIO 610	Biochemistry of Metabolism	3
BIO 641	Data Analysis in the Biosciences	3
NFS 601	Research Methods in Nutrition and Foods	3
NFS 849	Readings in Therapeutic Nutrition	3
NFS 997	Research in Human Nutrition	3
BIO 679	Issues in Scientific Research	3

Candidacy Written Exam. At the end of the second year the Dissertation Research Committee in consultation with the student will choose three sub-disciplines of nutrition in which the student is 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 members of the Dissertation Research Committee as part of the Ph.D. 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 Advisor contribute questions only in exceptional circumstances, with the approval of the Ph.D Candidacy Committee. After receiving the questions from the committee, students have two weeks to submit answers to these questions. The Chair of the Dissertation Research Committee will distribute the answered written examination questions to each member of the Ph.D. Candidacy Committee so all members can assess the candidates progress. The Ph.D. Candidacy Committee will meet and approve the answers to the examination on a pass/fail basis. The remaining oral portion of the Candidacy exam is described on page 6. After successful completion of the candidacy exam, students should register for 1 credit of Ph.D. Research (BIO 997) each term thereafter.

#### **APPENDICES**

## I. BIOLOGY GRADUATE STUDENT ASSOCIATION (BGSA)

#### **BGSA Officers for 2012-13**

President	Karl Siegert	kgs36@drexel.edu
Vice President	Ashley Kalinski	alk66@drexel.edu
Treasurer	Jules Winters	jmw337@drexel.edu
Secretary	Jasmine Alexander	jja59@drexel.edu
Academic Chair	Lee Dolat	<u>lcd48@drexel.edu</u>
Social Chair	Drew Cronin	dtc33@drexel.edu
Service Chair	Shauna Henley	sch52@drexel.edu

#### CONSTITUTION

We, the graduate students of the Drexel University Department of Biology, through the establishment of this Constitution on the 1<sup>st</sup> 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 Advisor 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 Advisor, 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: Advisors**

A tenure track or tenured Faculty Advisor must be in place at all times. The Advisor will be expected to attend Executive Board meetings and will be invited to attend all other events. A candidate for Advisor must display interest in the position and be chosen by the Executive Board. The term of Advisor 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 advisors, if necessary, from within the Department of Biology to assist the Faculty Advisor. The secondary advisor 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 Advisor, 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 two-thirds 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. He/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 Advisor 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.