



DREXEL UNIVERSITY

Graduate School of

**Biomedical Sciences  
and Professional Studies**

*College of Medicine*

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## **Division of Biomedical Science Programs**

### **Policies & Procedures**

#### ***Division of Biomedical Science Programs***

*The University reserves the right to change any of the provisions, bylaws, rules, regulations, policies or procedures at any time as may be necessary in the interest of the University.*

*This handbook contains Division of Biomedical Science Program-specific policies. Program-specific handbooks or guidelines may contain more detailed information about program policies and requirements. Policies may change over the academic year and such changes will be communicated to the students.*

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## **DIVISION MANAGEMENT**

### **Division of Biomedical Science Programs Executive Committee**

The graduate programs within the Division of Biomedical Science Programs (BMedSci) are managed by the Division of Biomedical Science Programs Executive Committee, which formulates the requirements for graduate degrees and which selects qualified applicants, monitors academic records, makes decisions regarding continuation or termination of enrollment, approves students for graduation, reviews proposals for new programs and courses, evaluates existing programs and approves graduate faculty appointments.

The BMedSci Executive Committee consists of the BMedSci Division Director, who is chair; the program directors or designees of degree-granting programs in Biomedical Science; the director of the M.D./Ph.D. program; two student members in good standing who are appointed by the Graduate Student Association (GSA); a post-doctoral fellow who is appointed by the Post-Doctoral Association, and two at-large members elected by the faculty. The Associate Dean of Educational and Academic Affairs, the Director of Professional Development and Postdoctoral Studies, the Director of the Core Curriculum sub-committee, the Assistant Dean of Student Affairs, the Director of Administrative Services, the Director of Graduate Admissions and Recruitment, and the representative to the Diversity Committee will serve as non-voting members.

The Roles of the Division of Biomedical Science Programs Executive Committee are as follows:

- (a) Conduct reviews of the existing and proposed educational courses.
- (b) Conduct reviews of the existing and proposed programs and recommend creation of new programs.
- (c) Assess the effectiveness of the graduate education courses and educational programs and make recommendations for appropriate evaluation of all trainees.
- (d) Review and recommend applications of candidates by the various graduate programs and recommend to the Dean of the Graduate School of Biomedical Sciences and Professional Studies decisions on admission and allocation of stipends.
- (e) Review the academic performance of graduate students, make recommendations concerning corrective action to improve a student's academic performance, make decisions concerning termination of a student's status because of academic and/or ethical deficiencies, and recommend students for graduation.
- (f) Advise the Dean of the Graduate School of Biomedical Sciences and Professional Studies on the resource requirements to accomplish the educational goals of the Division.
- (g) Approve the appointments of faculty within its Division.

### **Graduate Core Curriculum Subcommittee**

#### **(1) Responsibility**

The Graduate Core Curriculum Subcommittee is responsible for the oversight, administration, and review of the core courses required for all M.S. and Ph.D. graduate students in the Biochemistry, Biotechnology, Cancer Biology, Microbiology and Immunology, Molecular and Cell Biology and Genetics, Neuroscience, and Pharmacology and Physiology graduate programs. This includes *Molecular Structure and Metabolism, Cells to Systems, Responsible Conduct in Research, and Biostatistics*. The committee: 1) coordinates course schedules, 2) reviews and approves course content and grading policies, 3) monitors student performance, 4) recommends course of action for failing students, and 5) conducts course evaluations. The committee reports to the BMedSci Executive Committee.

#### **(2) Membership**

The Graduate Core Curriculum Subcommittee consists of the course coordinators for *Molecular Structure and Metabolism, Cells to Systems, Responsible Conduct in Research* and two 'at large' faculty members that combined include representatives of each of the 5 Ph.D. programs and 7 M.S. programs in biomedical sciences. The Chair of the committee is appointed by the Director of the Division of Biomedical Science Programs.

### **Postdoctoral Training Committee**

#### **(1) Responsibility**

The Postdoctoral Training Committee is responsible for oversight of postdoctoral training in the laboratories of the graduate faculty of the College of Medicine, including establishment of and adherence to best practices in the training of postdoctoral fellows, formal recognition of postdoctoral fellows by the Graduate School of Biomedical

Sciences and Professional Studies through letters of welcome, guidelines for training, and award of certificates upon completion of training.

**(2) Membership**

The committee consists of three faculty members appointed by the Dean of the Graduate School, one of whom is the Director of Professional Development and Postdoctoral Studies, and two post-doctoral fellows.

**Graduate Offices**

The BMedSci Graduate Offices are located in suite G24 on the ground floor of the Queen Lane Medical Campus (PH 215-991-8571) and in suite 4104 (rooms 4108A and B) of the New College Building (PH 215-762-8217 and 215-762-1420).

## **TUITION AND FEES**

**TUITION**

The tuition and fee rates are posted here: <http://drexel.edu/drexelcentral/cost/tuition/medicine/>  
All rates are subject to approval or revision by the Board of Trustees.

Full-Time is equal to 9 or more semester credits for students in the Division of Biomedical Science Programs.

**FEES**

It is the responsibility of all students in the Graduate School of Biomedical Sciences and Professional Studies to pay University and Student Activity Fees. These fees are billed each semester and can be found on the student's bursar ebill.

# **ACADEMIC POLICIES**

## **Degrees and Programs**

The Division of Biomedical Science Programs offers master's and doctoral degrees in specific disciplines in the basic biomedical sciences. The degrees conferred by the Division of Biomedical Science Programs are the Doctor of Philosophy (Ph.D.) and the Master's degree (M.S.).

The Ph.D. degree is the highest degree granted by any University. The program of work leading to the Ph.D. degree is designed to provide students with a comprehensive view of a field of knowledge and to train students in methods of research and scholarship in that field and closely related areas. The M.S. degree programs are designed to provide advanced professional and scientific study to prepare students to enter a specialized field or a doctoral program.

The following is the list of graduate programs offered through the Division of Biomedical Science Programs by the Graduate School of Biomedical Sciences and Professional Studies in the College of Medicine:

Biochemistry (M.S. and Ph.D.)  
Biotechnology (M.S.)  
Cancer Biology (M.S.)  
Microbiology and Immunology (M.S. and Ph.D.)  
Molecular and Cell Biology and Genetics (M.S. and Ph.D.)  
Neuroscience (M.S. and Ph.D.)  
Pharmacology and Physiology (M.S. and Ph.D.)

## **Technical Standards for Admission and Continuation in Good Standing**

Technical Standards refer to non-academic requirements that are essential for meeting the academic requirements of our graduate programs in biomedical sciences and professional studies. Within any area of specialization, students must demonstrate competence in those intellectual and physical tasks that together represent the fundamentals of biomedical research in their chosen discipline.

Most of the Ph.D. and M.S. degree programs in the Graduate School of Biomedical Sciences and Professional Studies in Drexel University College of Medicine require a laboratory-based research dissertation. Granting of these degrees implies that the recipient has demonstrated a base of knowledge in the field and the ability to independently apply that knowledge to solve a particular problem by forming hypotheses, designing and conducting experiments, interpreting the experimental results, and communicating the results and their interpretation to the scientific community. Thus, a candidate for the M.S. or Ph.D. degree in programs that require laboratory research in the Division of Biomedical Science Programs must possess abilities and skills that allow for observation, intellectual and conceptual reasoning, motor coordination, and communication. Programs that require clinical research may include a broad spectrum of clinical skills such as: retrospective studies; bench-top studies in conjunction or not with pharmaceutical companies; development of new clinical methodologies/techniques; or development/evaluation of new clinical devices.

All applicants and graduates must meet the prescribed technical standards, with or without reasonable accommodations. The use of a trained intermediary is not acceptable in many situations in that a candidate's judgment will be based on someone else's power of selection and observation.

### **Observation**

The candidate must be able to acquire knowledge by direct observation of demonstrations, experiments, and experiences within the laboratory and instructional setting or clinic. Examples are physiological or pharmacological responses in animals and humans, studies of microbiological cultures and organisms, identification of normal and abnormal cells or tissues through a microscope, and interpretation of results obtained on various instrumentation.

### **Intellectual/Conceptual Abilities**

The candidate must be able to measure, calculate, analyze, reason, integrate and synthesize information to solve problems.

**Motor Skills**

The candidate must possess motor skills necessary to perform procedures required for experimentation within the chosen discipline. These skills may include, but are not limited to, surgery in animals, handling of animals, transfer of microorganisms to various media, preparing chemical and often toxic materials and solutions, preparation of anatomical specimens for microscopic examination, and manipulating electronic and other complex equipment.

**Communication**

The candidate must be able to share, provide, and elicit appropriate information from peers, faculty, and staff using the ability to speak, hear, and observe as well as perceive nonverbal communication. The candidate should be able to communicate with peers, faculty, and administrators through oral, written, and electronic forms. They should convey sensitivity and respect in all communications with peers, faculty, and staff. If engaged in research, the candidate must be able to communicate and discuss his or her experimental hypotheses and results with the scientific community, both in scientific journals or directly at scientific meetings, seminars, or in the laboratory to the research team.

**Behavioral and Social Attributes**

The candidate must possess the emotional and mental health required for full utilization of his or her intellectual abilities, the exercise of good judgment, the prompt completion of responsibilities inherent in managing a scientific laboratory, the ability to function under the stress inherent in biomedical research, and the ability to understand and comply with ethical standards for the conduct of research.

In accordance with Section 504 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), the ADA Amendments Act, and Graduate School of Biomedical Sciences and Professional Studies policy, no qualified individual with a disability shall, on the basis of that disability, be excluded from participation in Graduate School of Biomedical Sciences and Professional Studies programs or activities. The Graduate School of Biomedical Sciences and Professional Studies will provide reasonable accommodation to a qualified individual with a disability.

During the application process, applicants who have disabilities and feel they may need accommodations must contact the Office of Disability Resources for further information. A request for accommodations must be made as far in advance as possible. Accepted students who have a disability and feel they may need accommodations in order to successfully fulfill program requirements must initiate discussions with the Office of Disability Resources as soon as the offer of admission is received and accepted. If a matriculated student develops a disability or the impact of their disability changes during their studies and accommodations may be needed to successfully fulfill program requirements, immediate contact with the Office of Disability Resources is required. The Office of Disability Resources is not able to issue retroactive accommodations. The Office of Disability Resources can be contacted at the following:

Office of Equality and Diversity  
Disability Resources  
Drexel University  
3225 Arch St., Suite 011  
Philadelphia, PA 19104  
PHONE: 215-895-1401  
TTY: 215-895-2299  
FAX: 215-895-1402  
[disability@drexel.edu](mailto:disability@drexel.edu)

<http://drexel.edu/oed/disabilityResources/overview/>

### **Required Core Courses**

During their first year of matriculation, all Ph.D. and M.S. students in the Biochemistry, Biotechnology, Cancer Biology, Microbiology and Immunology, Molecular and Cell Biology and Genetics, Neuroscience, and Pharmacology and Physiology graduate programs are required to take and pass *Molecular Structure and Metabolism* and *Cells to Systems* with a grade of “B” or better. In addition, *Biostatistics* (or *Statistics in Neuro/Pharm Research*) and *Responsible Conduct of Research* must be taken and passed prior to graduation. Doctoral students must complete a dissertation in *Thesis Defense* prior to graduation. Master’s students must complete a thesis in either *Thesis Research* or *Thesis Defense* or a non-thesis master’s in *Literature Review* prior to graduation. Attendance in the Learn Early and Practice (LEAP) series is required of all first-year students.

Note that the Biotechnology program does not require its students to take *Biostatistics*.

The *Responsible Conduct of Research* must be taken at Drexel. The only approved exemption would be if a student successfully completed a comparable course through another Drexel graduate program.

### **Core Curriculum Grading Policy:**

Students are required to complete both *Molecular Structure and Metabolism* and *Cells to Systems* with a grade of “B” or better in each of these courses in order to take their program’s preliminary exam. See Probation policy for more details. Individual programs may set higher standards.

There will be at least 5 in-class examinations each semester. The format of each examination will be determined by the faculty that lecture in each block and will vary somewhat throughout the course. Additional details will be provided prior to each examination. One letter grade each will be issued for *Molecular Structure and Metabolism* (Fall semester) and for *Cells to Systems* (Spring semester). Grades will be determined from the weighted average of exams based on lecture hours covered per exam, according to the following grading system:

| <u>Numerical Grade</u> | <u>Letter Grade</u> | <u>Numerical Grade</u> | <u>Letter Grade</u> |
|------------------------|---------------------|------------------------|---------------------|
| 90+                    | A                   | 77-79                  | B-                  |
| 87-89                  | A-                  | 74-76                  | C+                  |
| 84-86                  | B+                  | 70-73                  | C                   |
| 80-83                  | B                   | Below 70               | F                   |

### **Grading Policy**

1) **Requests for a change in grade on individual examinations must be directed to the course director before discussion with individual lecturers.** Adjustments to correct errors in grading will be made by the course director. This is **not** an opportunity to remediate poor performance.

2) A passing grade for *Molecular Structure and Metabolism* and *Cells to Systems* is an 80. An appeal of a grade less than 80 must be directed to the Graduate Core Curriculum Subcommittee through the course director.

3) The academic progress of students who fail *Molecular Structure and Metabolism* or *Cells to Systems* will be discussed by the BMedSci Executive Committee, which will determine the next steps (i.e. retake Fall semester and/or Spring semester, probation, dismissal, etc.) after considering the recommendations of the Graduate Core Curriculum Subcommittee and the student’s Program Director.

4) **If a Ph.D. student receives an average score of < 80 for both *Molecular Structure and Metabolism* and *Cells to Systems*, his/her stipend support will no longer be provided by the Graduate School of Biomedical Sciences and Professional Studies in the second year of graduate training.**

5) Appeals of BMedSci Executive Committee decisions related to unsatisfactory performance may be made to the Academic Affairs Committee per guidelines described further below.



### **Required and Elective Courses**

**Major Field** is the program in which a student specializes. Courses in a major field are the courses offered by a program in the field of that degree. Courses in a major field may include both required and elective courses.

**Required Courses** are the courses specifically identified by a program that students must take to fulfill the requirements for a specific degree.

**Elective Courses** are the non-required courses that students may take for a specific degree program. Elective courses may be inside or outside the major field. Program guidelines may require that students select from a choice of specific elective courses. Approved electives for individual programs are listed in the Graduate Catalog.

### **Registration**

Registration takes place at announced dates prior to the start of each semester. At this time students must register via BannerWeb <http://connect.drexel.edu> for all regular courses, seminars and research or be registered by their program.

A two-week Drop/Add period occurs at the beginning of each term. During Drop/Add period registration changes may be made. No course registration changes are permitted after the end of the Drop/Add period for each term. A student may register for a maximum of 20 credits per semester. A student needs to be registered for at least 9 credits to be considered to have full-time status.

The BMedSci Graduate Office is located in suite G24, Queen Lane and in suite 4104 (rooms 4108A and B), New College Building. Office hours are 9:00 a.m. to 5:00 p.m., Monday through Friday. All student academic records for the Division of Biomedical Science Programs are filed in this office. Drexel Central is responsible for issuing all transcripts and completing all enrollment and graduation certifications. Please visit [www.drexel.edu/drexelcentral](http://www.drexel.edu/drexelcentral) for locations and hours of operation.

### **Registration during Summer Semesters**

BMedSci students are considered to be continuously enrolled and do not register for the Summer semester, unless they are applying for summer graduation. International students must register for the summer semester as directed by the Office of International Students and Scholars Services.

#### **1) Non-thesis MS**

If a student is unable to complete the Literature Review course in the Spring semester, then he or she can request an extension over the summer and not necessarily register for anything unless the student is international. In that case, the student can be placed in the Register for Degree Only (nonbillable) course. Depending on the exact timing of the extension, the student will most likely graduate at the end of August, but if it is a short extension, he or she may still be able to be assigned to graduate in May. In this circumstance, the student will receive a grade of INC, which will be changed to S upon successful completion.

#### **2) Thesis MS**

If a student is in Thesis Research, then they must be directed by their committee to register for either Thesis Research (billable) or Thesis Defense (nonbillable) in the summer, if that is their expected timeframe, or in the Fall, if there is no expectation of their finishing in the summer. If a student has been in Thesis Defense and not finishing, then there must be evidence of an extenuating circumstance that has caused the delay, and their committee should meet to evaluate the situation and direct the student to be registered for Thesis Defense in the summer or even the fall. The Chair of the committee, the Program Director, and the PI must all approve the second registration, just like they do for the first time. The student will receive a grade of IP (in progress) which will be changed to S upon successful completion. The Director of the BMedSci Executive Committee, in their role as Course Director of Thesis Defense, has final approval over who can register for Thesis Defense.

#### **3) PhD**

If a student has had a committee meeting and is directed to finish over the Summer Semester, then the Chair of the committee, the Program Director, and the PI must all approve registration for Thesis Defense. If a student has been in Thesis Defense and not finishing, then there must be evidence of an extenuating circumstance that has caused the delay, and their committee should meet to evaluate the situation and direct the student to be registered for Thesis

Defense in the summer or even the fall. The Chair of the committee, the Program Director, and the PI must all approve the second registration, just like they do for the first time. The student will receive a grade of IP (in progress) which will be changed to S upon successful completion. The Director of the BMedSci Executive Committee, in their role as Course Director of Thesis Defense, has final approval over who can register for Thesis Defense.

#### **4) MD/PhD**

MD/PhD students who are finishing their PhD phase cannot register for anything over the Summer semester as it interferes with their medical school registration. They should be registered in Thesis Defense during their last semester in the PhD phase.

#### **Registration – Non-matriculated Students**

Non-matriculated students must register through the Graduate Office. All students wishing to register as a non-matriculated student must submit a completed application, transcripts, an application fee and a registration form. **All course registrations must be approved by the course director. Non-matriculated students can register for no more than 8 credits per semester.** Contact the BMedSci Graduate Office for more information.

#### **Grading System**

Courses are graded in one of three ways. Some courses are graded on a letter grade system (A, A-, B+, B, B-, C+, C-, D, or F). These grades have a numerical quality point weight as follows: (A = 4.00, A- = 3.67, B+ = 3.33, B = 3.00, B- = 2.67, C+ = 2.33, C = 2.00, C- = 1.67, D = 1.00 and F = 0.00). Some courses are graded S = Satisfactory / U = Unsatisfactory or CR = Credit / NCR = No Credit; Grades of S, U, CR, or NCR do not have a corresponding numerical quality point weight and are not included in the calculation of quality point averages.

#### **Minimum Grade Point Average**

Graduate students are required to achieve an overall minimum grade point average of “B” (3.00) for graduation. No graduate credit is given for a grade of less than B in core courses or required courses taken in the major field. A grade of “C” in all other courses will be allowed for graduate credit. A grade of “C-,” “D,” or “F” in any course will not be accepted for credit.

#### **Remediation Policy**

Students who receive a final course grade of B- to D in a required course or C- to D in an elective course may be eligible to sit for course remediation according to course policies set forth in the syllabus. A Program Director may submit an appeal for remediation on behalf of a student to the Academic Affairs Committee. Students who receive an F in a course are not eligible to remediate. If the student passes the remediation, the final letter grade for the course will be changed from their existing grade to the minimum passing grade (B for required courses, C for elective courses). If the student fails the remediation, their original final grade will remain unchanged. A student cannot earn a grade higher than the minimum passing grade for this course. A student is only allowed one attempt at remediation per course. The remediation **MUST** be administered, taken and graded before the end of the drop/add period of the immediately following term. No remediation is available for the *Molecular Structure and Metabolism* and *Cells to Systems*.

#### **Make Up Exam Policy**

A Course Director may allow a student to take a make-up exam/quiz for missing an exam/quiz for a medical illness or other extenuating circumstance according to course policies set forth in the course syllabus. A Program Director may submit an appeal for a make-up exam on behalf of a student to the Academic Affairs Committee. Documentation for the clinical or emergency reason of absence must be submitted by the student and placed into the student file. The make-up exam must be administered prior to reviewing the original exam with the class.

#### **Academic Probation**

Academic standing for first year students in the Division of Biomedical Science Programs is based on first year course requirement grades. Good academic standing is achieved by earning a B or better in all required courses taken in the first academic year. Students who do not earn a B or better will be placed on academic probation except for the following circumstance: A first year student who achieves a B- or a C in IDPT 521S 05 *Molecular Structure and Metabolism*, IDPT 526S 05 *Cells to Systems*, or MIIM 508 *Immunology I* or withdraws from one of these

courses will not result in academic probation. If the student is in an M.S. program, completion of the program can still be achieved in two years. However, the course will need to be repeated the following year.

In the first academic year, a student will be placed on academic probation for the following circumstances:

- Any first-year student who achieves a grade of B- to D in two or more of these courses (IDPT 521S 05 *Molecular Structure and Metabolism*, IDPT 526S 05 *Cells to Systems*, or MIIM 508 *Immunology I*) will be placed on academic probation and will be required to repeat those courses the following year. If the student is in an M.S. program, they may have difficulty completing the program within two years.
- Any first-year student who earns an F in any course or withdraws from two or more required courses will be placed on probation and required to repeat the course(s). If the student is in an M.S. program, they may have difficulty completing the program within two years.
- Each program may place a student on academic probation for failing to meet programmatic milestones (such as performance on lab rotations, preliminary exams, qualifying exams, etc) at their discretion.

In the second academic year and beyond, good standing is achieved by earning both a term and cumulative GPA of 3.00 or higher, otherwise the student will be placed on academic probation.

### **Repeat of Courses**

Students must repeat for credit any required course for which they have received a grade of “B-” or below. Students may request to repeat an elective course for which they have received a grade of “C-” or below. If the program allows the repeat, the repeated course must be the exact same course, not a replacement course. The “Request to Repeat a Course” form must be completed by the student and submitted to the Graduate Office at the beginning of the semester. When a course is repeated, both the original grade and new grade remain on the student’s transcript. However, the grade received in the repeated course replaces the original grade in the calculation of the cumulative GPA.

### **Termination of Enrollment**

Any student whose cumulative grade point average is less than 3.00 for two consecutive semesters (excluding summer sessions) will be subject to dismissal after review by the BMedSci Executive Committee. **Failing the same course twice is automatically grounds for dismissal.** A program may also recommend dismissal for academic deficiencies in programmatic milestones or engagement in unprofessional conduct. The criteria adhered to by individual programs may be more stringent than the minimum standards with regard to continuing status in a program. To be considered for re-instatement, an academic plan, created in consultation with the Program Director, which outlines the proposed steps that will improve academic standing, must be submitted along with a letter of appeal to the Academic Affairs Committee. To undertake additional work to improve academic standing, students must obtain the permission of the program in which they are enrolled for graduate study.

### **Eligibility for Ph.D. Stipend**

Ph.D. students in good academic standing remain eligible for continued financial support from the Graduate School of Biomedical Sciences and Professional Studies for their first two years. If a PhD student is placed on academic probation because of their average performance of < 80 in IDPT 521S 05 *Molecular Structure and Metabolism* and IDPT 526S 05 *Cells to Systems*, his/her stipend support will no longer be provided by the Division of Biomedical Science Programs in the second year of graduate training.

### **Incomplete Grades**

At the discretion of the course director, a student may be assigned the grade of “INC” (Incomplete) at the end of a semester in which all course work has not been finished. A grade of Incomplete will become an “F” or “U” if the final grade is not submitted within the period of one calendar year following the end of the semester in which the course was originally taken. Students who withdraw or are dismissed from the Graduate School may continue to satisfy incomplete grades at the discretion of the course director, who may set the deadline for resolving an incomplete grade to be less than an academic year. Circumstances may prevent a course director from assigning grades to an entire class at the official end of a semester. In such cases the grade of “IP” (In Progress) will be assigned temporarily until final grades are available. “IP” is also used when students do not complete *Thesis Defense* in their first enrollment. Courses with “INC” and “IP” grades are not calculated in a student's grade point average until final grades are assigned.

### **Auditing Courses**

Students may audit one course each semester. Approval must be granted by the chairperson of the department offering the course and the course director. Students may not change from credit to audit status or vice versa after the last day of the Drop/Add period. Students who formally audit a course will be expected to pay tuition at the standard rate determined by the University. Transcripts of students who formally audit a course will reflect this status.

### **Dropping Courses**

A course may be dropped during the Drop/Add period via BannerWeb. If the Drop/Add is performed by the end of the Drop/Add period, no record of the registration for the dropped course will appear on the student's transcript. *If a drop is requested after the Drop/Add period, it is considered a withdrawal. A "W" appears on the transcript and the student is responsible for paying for the course per Drexel guidelines.*

### **Course Withdrawal**

Students who withdraw from a course after the Drop/Add period must complete and submit an official Course Withdrawal form to Drexel Central. Note that tuition reduction is only available for withdrawals that occur within the first five weeks of the semester.

If the Course Withdrawal form is received by Drexel Central after the Drop/Add period, but up to the published withdrawal deadline, the student, at the option of the instructor, may be assigned grades of Withdrawn (W), Withdrawn Passing (WP) or Withdrawn Failing (WF).

If the Course Withdrawal form is received by Drexel Central following the published withdrawal deadline, a BMedSci student who withdraws from a course will receive a grade of "WP" if passing, or a grade of "WF" if failing.

### **Course Waivers**

Professional experience, specific skill competency, or a course taken on a graduate level at an accredited graduate institution may be accepted in lieu of a required course with the approval of the course director and program director. In this case either a temporary course will be created as a course substitution and assigned a grade of "T" or the student will be registered for the required course and assigned a grade of "EX" on the transcript, which will satisfy graduation requirements without contributing to GPA.

### **Transfer of Credits**

Acceptance of transfer credit from approved, accredited institutions is dependent on the pertinence of the work to the degree program being pursued. Coursework that lies outside the scope of the degree program is not necessarily applicable for degree credit. Up to 20 graduate credits may be eligible for transfer into the course requirements for either a master's or doctoral degree. A grade of B (3.00) or better or Satisfactory is required in each course for which transfer of credits is requested. The usual time a course from another institution may be valid for transfer is 5 years from the completion of the course until the time of matriculation.

Students transferring credits are still subject to all credit and required course requirements of the individual graduate programs. Note that at least 20 credits of any master's degree program and at least 50 credits of any doctoral degree program must be taken at Drexel. Those with post-master's status must take at least 30 credits at Drexel.

A student seeking to transfer credits should submit a written request to the director of their graduate program with the following documents: 1) the student's official transcript; 2) a clear description of the names of the courses that are to be transferred as well as a course description/syllabus; 3) the name of the courses that will be replaced by the transfer of credits.

The program director provides a written document supporting the credit transfer request and acknowledges that the academic rigor and content of the prior coursework is comparable to that of the Drexel graduate program through consultation with relevant Drexel course directors, where appropriate. The program director should also indicate how the credit transfer impacts the program of study of the student going forward (a timeline is suggested with an outline of the program of study). Extension of the limit beyond 20 credits can be petitioned by the student's Ph.D. graduate program, and should be accompanied by a compelling rationale in the letter from the Program Director.

The request for acceptance of credits taken prior to matriculation to a graduate program at Drexel University College of Medicine must be made at the time of application for admission to the program. The BMedSci Executive Committee will make the admission decision and decide whether to accept the transferred credits.

If the student is seeking advanced academic standing of a semester or more, then all the above materials must be submitted to the Chair of the Academic Affairs Committee (AAC). The AAC will evaluate the transfer request and make a recommendation regarding advanced standing to the Dean of the Graduate School.

Grades for courses for which transfer of credits is approved from another institution and not Drexel University, are not recorded on the student's transcript and are not used to compute the grade point average. Only credit will be assigned for these courses and a "T" letter grade will be listed for the course(s) that is/are approved. The "T" letter grade is not factored into the student's term or cum GPA. When necessary, credits from the other institution will be converted to credit equivalents.

Credits taken at Drexel University will already be part of the student's overall transcript and will be applied to the new degree program, if approved, during the degree clearance process. Earned credits from another Drexel program will remain part of the student's cumulative GPA. When necessary, credits from one program will be converted to credit equivalents of another (for example, quarter to semester courses). In cases of transfers across Divisions or from other Drexel Schools, the AAC may lower the overall cumulative GPA requirement for graduation to 2.80, while maintaining the 3.00 term and cumulative GPA requirement for the new program.

If a student's program director gives the student permission to take a course(s) at another accredited graduate school after matriculation, the transfer of such credits is also possible. To be acceptable the credits must meet the requirements as outlined above. The BMedSci Executive Committee will decide on the approval of the transfer of the credits with the advice of the director of the student's program and of the department, which offers corresponding courses.

### **Graduate Student Support**

1. A key mission of the Graduate School of Biomedical Sciences and Professional Studies in the College of Medicine is to train the next generation of biomedical scientists by providing rigorous coursework, training students to perform cutting edge, cross-disciplinary research and preparing them for careers in diverse areas of science.
2. Stipend levels, health insurance, and tuition for Ph.D. students are set by the Office of the Dean in consultation with the Graduate Council. Stipends are equivalent for all Ph.D. students in all programs and across all years of study. Students awarded internal or extramural funding for less than established stipend levels of support will be supplemented to reach the full level of support. Stipend funding mandated by internal or extramural support that is in excess of the typical stipend is permitted.
3. The Graduate School provides stipend, health insurance and tuition scholarship for Ph.D. students during the first two years of study; individual investigators and/or departments or units are responsible for supporting these costs for years three through six. Currently, Ph.D. students will receive an annual stipend of \$29,000. Stipend support for first year students begins when the student arrives on campus to begin lab work (either July 1<sup>st</sup>, August 1<sup>st</sup>, or Orientation) and continues through July 30<sup>th</sup>. Stipend support for second year students extends across the fiscal year.
4. The Graduate School is pleased to oversee the provision of annual coverage for health insurance for its Ph.D. students. Students have the option of enrolling in the Drexel Student Health Plan.

The plan design can be found at:

<http://www.drexel.edu/healthservices/insurance-immunizations/health-insurance>

While the plan design may change slightly from year to year, any major changes to plan design will be communicated to students ahead of the opt-out period. Should a student opt out of the Drexel plan, proof of alternative health insurance must be provided to the Graduate School. Please be advised that, in keeping with University policy, the only health insurance plans for which support is provided is for the University-offered plan. The School does not provide an allowance for the purchase of non-Drexel health insurance.

5. All BMedSci Ph.D. students receive a full tuition scholarship during their expected years of study. The Graduate School covers these costs during the first two years of study. For students in years three through six, advisors are expected to cover a portion of tuition costs and the remainder will be covered by the Graduate School.

6. Ph.D. students are guided by individual Program Directors to advisors with laboratories with a history or immediate promise of stable extramural funding in order to ensure support for the duration of their research training. For rising third year students, the student, dissertation advisor, program director and chair of the home department in which the faculty holds their primary appointment must acknowledge in writing the fiscal responsibility for student support (stipend, health insurance, tuition) for years three through six of the student's research training. In the event that a student's advisor encounters a lapse in funding, the department or unit in which the mentor has his/her primary appointment will be responsible for the financial support of the student. This acknowledgment means that the mentor and Department Chair will adhere to the policies and procedures of the Division of Biomedical Science Programs. The Director of the Division of Biomedical Science Programs and the Director of Administrative Services will monitor compliance with these responsibilities to ensure uniform and equitable application of these policies to all students and faculty.

### **Graduate Student Vacation Policy**

Ph.D. students are eligible for up to two weeks of approved vacation time per year, in addition to the observance of traditional holidays. All requests for vacation time must be made to and approved by the program director and the student's mentor. Any vacation time beyond two weeks (ten working days) must be approved by the BMedSci Executive Committee, and a student's stipend will be suspended until the student returns. If a student takes an unapproved vacation time, his/her stipend will be suspended until he/she returns. In all cases, students taking vacation time for 4 or more consecutive days must notify their program director and program coordinator via email prior to the start date of the vacation.

### **Program Length of Study**

The maximum elapsed calendar time allowed for completion of master's degrees is four years and for completion of doctoral degrees is seven years (nine years for the M.D./Ph.D. program). The effective starting date for determining the length of study is the date of matriculation. *Time limits continue to run even during a leave of absence.* Exceptions to the time limit are subject to appeal through the Academic Affairs Committee. The program must support the request.

## **STUDENT STATUS**

### **Maintenance of Matriculation**

All matriculated graduate students in full-time programs are required to register each semester (excluding summer semesters, except as described above) in order to continue to be degree candidates, unless they have requested and have received a formal leave of absence approved by the BMedSci Executive Committee. Informal leave of absence arrangements are not acceptable and will not be honored retroactively.

Matriculated students in full-time programs (not on a leave of absence) who do not register for a semester (excluding summer sessions) will be subject to termination of their matriculated status and may be administratively withdrawn or dismissed from the Division of Biomedical Science Programs. Reinstatement to matriculated status for students who are administratively withdrawn will require petition to, and action by, the BMedSci Executive Committee. Such students will be treated as new applicants requesting admission with advanced standing. They will be required to file a new application and pay the application fee.

### **Non-Matriculated Status**

If a student fails to meet the standards of the BMedSci Executive Committee for acceptance as a matriculated student or fails to meet application deadlines, the program may petition the Division Director to admit the applicant as a non-matriculated student.

Non-matriculated students are not guaranteed permission to take any course they choose. Non-matriculated students must obtain the permission of the course director of each course they wish to take. A non-matriculated student may apply for matriculated status at a later date.

### **Provisional Status**

The status of provisional acceptance provides for students whose admissions metrics fall below accepted standards or who are unable to submit required documents prior to matriculation. Students accepted with provisional status are not guaranteed financial support from the Graduate School. On the basis of the record of accomplishment in the first semester, the advisor or the temporary advisory committee for the student, through the program director, recommends to the BMedSci Executive Committee one of the following:

- That the status be changed to regular student;
- That the status of provisional be continued for second semester;
- That the student be dismissed.

### **Registered for Thesis Defense**

Students who have completed all course work and research requirements, but have not defended their thesis, may carry a status of "Registered for Thesis Defense." It is understood that a student carrying a "Registered for Thesis Defense" status has completed all course work and all research work as determined by the student's major advisor, has passed the preliminary examination, the comprehensive or qualifying examination, and has a cumulative grade point average of 3.00 or better. This registration is full-time for 9 credits, is non-billable for tuition, and prevents registration for any other courses in that semester. Students may not be registered for *Thesis Defense* for more than two semesters. Students must be registered for *Thesis Defense* by the Graduate Office. Registration for *Thesis Defense* requires the approval of the student's program director, mentor, and thesis committee chair with final approval by the Division Director.

### **Registered for Degree Only (RDO)**

Students who have completed all degree requirements, including thesis defense, may carry a status of "Registered for Degree Only" (RDO) for a period of one academic year. It is understood that a student carrying an RDO status has completed all course work and all research work as determined by the student's major advisor, has passed the preliminary examination, comprehensive or qualifying examination and thesis defense, and has a cumulative grade point average of 3.00 or better. Students may not be registered for this category if they are taking any other graduate courses.

### **Leave of Absence**

On recommendation of the student's major advisor and the director of the program in which the student is conducting his/her major work, and with the approval of the BMedSci Executive Committee, a student may take a leave of absence for up to a maximum of two years for master's candidates and three years for doctoral candidates, consecutively or separately, for reasons of 1) military service, 2) serious illness, 3) parental leave, or 4) another reason deemed adequate for interrupting graduate studies. Leaves of absence requested for medical reasons require additional documentation consisting of evidence of the medical issue associated with the requested leave. All leaves of absence are granted without pay. Any financial obligations incurred prior to leave of absence to the University are not waived by a leave of absence. Furthermore, a leave of absence does not extend the time limits allowed for completion of degree. Students on F-1 or J-1 visas are not eligible for a leave of absence (check with the Office of International Students and Scholarship Services if you have any questions).

At least 30 days prior to the conclusion of a leave of absence, the student must submit a written request to the Program Director and stating his/her desire to renew the leave or request to be reinstated. Return from a medical leave requires additional documentation consisting of a statement from the care provider that the student is ready to return and is fit to assume the responsibilities and requirements for full participation in graduate training. If reinstatement is requested, the program will inform the BMedSci Executive Committee in writing whether it supports or does not support the student's return based on whether or not the student has met the program's conditions for reinstatement, if any. If reinstatement is requested, any financial liabilities and other conditions of reinstatement must be completed prior to registration.

After approval of the BMedSci Executive Committee, reinstatement will be effective on the first day of the following semester, during which time the student must be registered. In cases where the student is primarily engaged in research, the reinstatement date may be set to be within a semester at the discretion of the BMedSci Executive Committee.

A student who neither applies for reinstatement nor requests renewal of the leave of absence after a period of one year will be administratively withdrawn from the Division of Biomedical Science Programs.

Programs may have more stringent requirements for leaves and reinstatements.

### **Change in Matriculation and Program Status**

For students changing to a different degree level within a program or between programs which are at the same degree level or below, the program directors involved must notify the BMedSci Executive Committee in writing.

When changing degrees (e.g., from Ph.D. to M.S. or M.S. to Ph.D.) the student is held to the requirements that are in effect for that degree at the time of degree change and not at the time of original matriculation.

### **Policy for M.S. graduates to enter a Ph.D. program with Advanced Standing**

The Division of Biomedical Science Programs supports the acceptance of graduating M.S. students to our Ph.D. programs with advanced standing. The following are the criteria for consideration and approval of this application by the BMedSci Executive Committee:

- 1) Completion of the M.S. program.
- 2) Ph.D. level performance in laboratory rotations as evidenced by such elements as independent thinking, technical mastery, conceptual mastery, or substantial research progress.
- 3) Strong recommendation from the Program Director.
- 4) Letter of recommendation from the proposed Ph.D. mentor along with evidence of financial support.
- 5) Letter from the student stating the reasons for applying to the Ph.D. program.

Students entering a Ph.D. program with advanced standing will coordinate with the Program Director and the Chair of the Academic Affairs Committee for transfer of credits from the M.S. to the Ph.D. program. Transitions normally start at the beginning of a semester.

### **Policy for Transitioning from a Ph.D. to M.S. program**

Students who transfer or who are transferred from the Ph.D. program to the M.S. program will be charged a tuition fee for the semester in which they receive their degree. If it takes longer than a semester to earn the M.S. degree, the student will continue to be charged per Drexel guidelines. Transitioning students will coordinate with the Program Director and the Chair of the Academic Affairs Committee for transfer of credits from the Ph.D. to M.S. program.

### **Change of Non-Matriculated Status**

- Non-matriculated students wishing to matriculate in the second semester are presented to the BMedSci Executive Committee as new applicants at the earliest appropriate meeting of the committee.
- Non-matriculated students anticipating changing to matriculated status mid-year should not register for non-matriculation for the second semester. If matriculation is approved, the student will be admitted as a new student by the BMedSci Executive Committee.
- Up to 20 credits taken at Drexel University College of Medicine as a non-matriculated student may be applied toward any degree, per guidelines for transfer of credit described above.

### **Withdrawal from the Graduate Program**

Any student who wishes to withdraw from a graduate program in the Division of Biomedical Science Programs should do so in consultation with his/her major advisor and/or program director. Per Drexel Central policies, the student is eligible for a full or partial tuition refund (depending upon the week), if the withdrawal occurs within 5 weeks of the start of the semester. The student must complete a Graduate Withdrawal form and a form to withdraw from all courses registered for that semester. Please see the Withdrawal from Courses policy above for more details.

### **Program Closure**

The Graduate School of Biomedical Sciences and Professional Studies is committed to ensuring that students enrolled in a program that is closing will receive a reasonable opportunity to complete the program. In the event of a program closure, selected course offerings and guidance for program completion will be provided so long as the student maintains continuous enrollment. This process applies to programs that are not continuing, as well as those that are



closing in order to merge with existing or newly created programs. The process for program closure detailed on the Faculty Senate website will be followed: <http://drexel.edu/senate/documents/governance/protocol-of-understanding/#4>

### **Teach Out Plan Procedure**

1. Following the decision to close the program, no new students will be admitted.
2. The Division Director notifies in writing the appropriate staff (e.g., admissions, registrar, finance, accounting, advising, communications, library, etc.), all enrolled students, and faculty.
3. Notification of Closure includes:
  - Dates of termination.
  - Reasons for program closure.
  - Plan for notification of students, faculty, and staff.
  - Explanation of the impact program closure will have on the students and how students will be helped to complete their program of study with minimal disruption (e.g. every effort will be made to accommodate student needs within a reasonable time frame. If a student is in continual enrollment, the college will continue to offer all the necessary courses for his/her graduation prior to program closure).
  - Arrangements for reassignment of faculty and staff, if possible.
  - Enrolled students sign program closing acknowledgement letter and advisor uploads the letter to the student's electronic record.
  - When appropriate, notice will also be given to all clinical and/or internship sites in accordance with the termination terms outlined in their respective Affiliation Agreements.

### **Graduate Student Grievance Policy and Procedures**

Before seeking recourse from the formal Compliant/Grievance Process, a student must first exhaust more immediate means of resolution in the line of authority including any appeals processes provided for under the program or department policy. Students are welcome to consult with the Associate Dean of Academic Affairs who oversees the grievance process to determine how best to proceed with their complaint.

Any complaint against a student or student organization should be made directly to Student Conduct and Community Standards, unless it is pertaining to a violation of the academic honesty policy and/or the parking policy. Complaint procedures for academic decisions are outlined below. Students must comply with the timelines and procedures for submitting complaints, grievances and appeals established under this procedure. Otherwise, the matter is not reviewable.

### **Resolving Complaints Involving Grades or other Academic Evaluations**

#### **Step I: Course Director**

Every effort should always be made to resolve an issue directly with the individual course director. When this is not possible and/or did not resolve the issue, individuals must file an appeal, in writing, to the Program Director. If the Program Director is the Course Director then move directly to Step III.

#### **Step II: Appeal to the Program Director**

If the student remains dissatisfied, they may appeal to the Program Director, who will communicate with both the student and the course director and send the student a written response on the issue.

If multiple students, courses and/or programs are involved in related issues, at the discretion of the Division Director, the appeal in Step II will be directed instead to the Division Director.

**Step III:** If the student remains dissatisfied, they may appeal to the Academic Affairs Committee. This appeal should be made in writing to the Associate Dean of Educational and Academic Affairs, who chairs the Academic Affairs Committee, and filed within five (5) days of receipt of notification of the decision of the program director's decision. The decision of the Academic Affairs Committee on appeals of grades or other academic evaluations is final and not subject to further appeal.

### **Resolving Appeals of Decisions made by the BMedSci Executive Committee such as Dismissals, Denials of Transfers, or other decisions**

A student who has been dismissed is ineligible to continue in his/her program during the appeals process. If the appeal succeeds, the student is reinstated in his/her program. A Ph.D. student who is dismissed will have his/her stipend terminated in the month following the dismissal decision, if unsuccessful on appeal.

#### **Step I: Program Director**

The student should discuss the situation with his/her Program Director to determine whether the program will support an appeal. To be considered for re-instatement, an academic plan, created in consultation with the Program Director, which outlines the proposed steps that will improve academic standing, must be submitted along with a letter of appeal from the student to the Academic Affairs Committee explaining any extenuating circumstances.

#### **Step II: Academic Affairs Committee**

The student may choose to meet with the Associate Dean of Educational and Academic Affairs to discuss the basis for an appeal, prior to submitting a letter of appeal. This appeal should be made in writing to the Associate Dean of Educational and Academic Affairs, who chairs the Academic Affairs Committee, and filed within five (5) days of receipt of notification of the decision of the BMedSci Executive Committee. Appeals to the AAC may be made without the program's support, although this will be taken into account with any decision.

#### **Step III: Dean of the Graduate School of Biomedical Sciences and Professional Studies**

If the student remains dissatisfied, they may appeal the AAC's decision to the Dean of the Graduate School of Biomedical Sciences and Professional Studies. This appeal should be made in writing and normally filed within five (5) days of receipt of notification of the decision of the AAC, or within an extended timeframe directed by the Chair of the AAC. The AAC will forward all information used to make its decision to the Dean, who may choose to meet with the student alone or with other faculty present, depending upon the circumstances. The decision of the Dean of the Graduate School Biomedical Sciences and Professional Studies on appeals is final and not subject to further appeal.

### **Resolving Complaints Involving Faculty, Academic Deans, School Directors, Program Directors, Division or Department Heads, including Academic Policy Complaints and Grievances**

Complaints of harassment or discrimination against University employees must be processed through the Office of Equality and Diversity. Throughout this process, students may feel free to contact the Dean of Students, 215 Creese Student Center, University City Main Campus, (215) 895-2501 for advice and consultation. The student must file their written complaint within thirty (30) days after issuance of the grade, evaluation or other academic decision being challenged or within thirty (30) days of the event giving rise to the complaint.

#### **Step I: Faculty Member**

Every effort should always be made to resolve an issue directly with the individual faculty member. When this is not possible and/or did not resolve the issue, individuals must file a complaint, in writing, to the Program Director. If the complaint is with Program Director, move to Step III.

#### **Step II: Filing a complaint with the Program Director**

Students may discuss the complaint with the Program Director informally or choose to file, in writing, a formal complaint.

#### **Step III: Appeal the Program Director's decision to the Director of their Division of Study**

If a student is not satisfied with the decision of the program director and wishes to pursue the matter further, he/she must appeal the decision to the Director of their Division of study, in writing, within five (5) days of receipt of notification of the program director's decision. The student's written appeal should clearly state the basis on which he/she is appealing the program director's decision and the reasons why the decision should be amended.

The Director of their Division of Study will review the written materials related to the appeal and may make any other inquiries he/she deems appropriate to evaluate the appeal. The Director of the Division of Study shall send the student a written response.

**Step IV:** If the student remains dissatisfied, he/she may appeal the Director of their Division of Study's decision to the Associate Dean of Educational and Academic Affairs. This appeal should be made in writing and filed within five (5) days of receipt of notification of the decision of the Director of the Division's decision.

**Step V:** If the student remains dissatisfied, he/she may appeal the Associate Dean's decision to the Dean of the Graduate School of Biomedical Sciences and Professional Studies. This appeal should be made in writing and filed within five (5) days of receipt of notification of the Associate Dean's decision. The decision of the Dean of the Graduate School Biomedical Sciences and Professional Studies on appeals is final and not subject to further appeal.

### **Graduate Student Responsibility and Rights**

A graduate student is expected to exhibit initiative and responsibility in planning and executing his/her graduate program. The student must be acquainted with the general regulations and administrative procedures governing graduate study and the specific program. The ultimate success of a student's graduate study is dependent on a close liaison between the student and the student's thesis committee. The student is expected to create and maintain an Individual Development Plan (IDP) in consultation with his or her advisory or thesis committee throughout their years of enrollment.

The formal requirements for master's and doctoral degrees are intended as a guide to establish minimum standards of performance to aid the student in planning his/her program of formal and informal courses of study and performing his/her thesis research program. The thesis committee is designed to assist the student in planning and executing his/her program of graduate study. *However the student is expected to assume major responsibility in planning his/her program and complying with the required academic standards of the Graduate School of Biomedical Sciences and Professional Studies.*

### **Center for Learning and Academic Success Services**

The following services are available for all Drexel students at the Center for Learning and Academic Success Services (CLASS)

- Tutoring for most courses
- Study skills assistance in the form of personal consultations with academic advisors
- Workshops, educational videos and software
- Audio-visual aids, textbooks, and anatomical models
- Computer-assisted instruction and reference texts
- Study rooms

For more information please call (215) 762-8121 or visit the CLASS website:  
[http://drexel.edu/studentlife/student\\_family\\_resources/class/](http://drexel.edu/studentlife/student_family_resources/class/)

### **Core Competencies**

The Division of Biomedical Science Programs at Drexel University College of Medicine offers a diverse set of courses, seminars, workshops and various professional development events that are designed to support our students in areas of personal growth in conceptual and practical knowledge and professional development. By focusing on the development of a variety of transferable skills, students in the Division can prepare for positive career outcomes in both academic and non-academic career tracks.

Please follow these links for full details:

<http://drexel.edu/medicine/academics/graduate-school/biomedical-core-competencies-masters/>

<http://drexel.edu/medicine/academics/graduate-school/biomedical-core-competencies-phd/>

# **Code of Academic Integrity**

## **Guidelines for Students**

The goals of Drexel University, Drexel University College of Medicine and the Graduate School of Biomedical Sciences and Professional Studies include providing an educational environment that fosters intellectual pursuits, developing socially responsible individuals, ensuring academic freedom and protecting individual rights. As one aspect of meeting these goals, the University has developed standards for both academic and non-academic matters. All students are expected to act in a manner consistent with these standards. The Code of Academic Integrity reflects the standards for academic matters.

Cheating, plagiarism, forgery, or other forms of academic misconduct are not tolerated at this institution. It is the responsibility of each student to ensure that his/her study and participation in the academic process is so conducted that there can be no question concerning his/her integrity. Faculty members have the responsibility of conducting their courses in a manner that fosters academic integrity.

Unless specifically exempted, examinations, quizzes, laboratory practicals, case studies, research papers, projects, and other assignments are expected to be the work of the individual student. Any use of ideas, data or wording of another person must include explicit acknowledgement of the source. Failure to give such credit is plagiarism. Intentionally aiding another student in such activities is also a violation of the Code of Academic Integrity.

Examinations, quizzes, and laboratory practicals are proctored. Each instructor specifies, as appropriate, what materials students may use during a written or practical exam, where students may sit, or any other instructions. If the exam is an "open book" or "take home" or online exam or other assessment, the instructor will clearly define the rules that apply. Unauthorized communication or use of unauthorized materials during any assessment constitutes academic misconduct and is a violation of the code.

## **Academic Misconduct**

If during an examination or other assessment, an instructor/proctor observes suspicious behavior and/or has such behavior reported by another student, he/she may warn the student. Continuation of the same behavior or actions will be regarded as cheating, and the student will be dismissed from the assessment at the discretion of the instructor/proctor. In the case of overt cheating, no warning will be given, and the student will be immediately dismissed from the assessment. All assessment and any unauthorized materials will be confiscated. A student who is dismissed from an assessment will receive a grade of "F" or "0" on that assessment. If an instructor/proctor suspects plagiarism or other forms of cheating, the student will be notified promptly and all papers, etc. relating to the incident will be retained by the instructor/proctor.

## **Subsequent Action for Alleged Cases of Misconduct**

A matriculated student will have the opportunity to present his/her version of alleged academic misconduct to the course instructor. If the instructor feels that the penalty for the student's behavior should be beyond receiving a failing grade for the assessment or assignment in question, the instructor must make a formal written complaint to the student's graduate program. If the Program Director feels there has been academic misconduct, he/she will report the incident to the Office of Academic Integrity through the website below:

[http://drexel.edu/studentlife/community\\_standards/overview/](http://drexel.edu/studentlife/community_standards/overview/)

Note that such reports are considered "institutional actions," and are required to be listed on many applications to health professional programs. Drexel's Office of Academic Integrity adds such reports to a student's record.

If the alleged misconduct is substantiated, a suitable penalty will be imposed by the program. The penalties may range from the aforementioned failure of the examination or assignment to suspension or expulsion from the program.

A matriculated student has the right to appeal the decision through the procedures established by the Graduate School of Biomedical Sciences and Professional Studies (see the section on Graduate Student Grievance Policy and Procedures above). Recommendations for suspension or dismissal from the program must be confirmed by the PMPH Executive Committee. Especially in cases of misconduct leading to dismissal, a student is ineligible to continue in his/her program during the appeals process. If the appeal succeeds, the student is reinstated in his/her program.

### **Research Misconduct**

The Graduate School of Biomedical Sciences and Professional Studies and the Office of Research at Drexel University place the highest value on the ethical and responsible conduct of research. The office provides policies, procedures, support, training and advice to aid researchers with compliance related to federal, state, university, and local regulations with regard to research. Our faculty, staff and administrators accept responsibility for creating an environment in which research is conducted to the highest standards of research integrity. Accordingly, we maintain a comprehensive suite of research policies and procedures described in the Research Policies Handbook, and we provide training in the responsible conduct of research for all faculty, staff and students engaged in research.

Should there be an allegation of research misconduct, please consult your Program Director and this website as to how best to proceed: <http://drexel.edu/research/compliance/integrity/>

## **Code of Professionalism**

### **Professionalism**

Professional behavior appropriate for faculty and students in an academic research setting is expected and required at all times. Admission to and continued participation in all Graduate Programs is therefore contingent upon the student's understanding of these expectations, and his/her agreement to adhere to the Code's guidelines.

### **Guidelines for Professional Behavior for Biomedical Graduate Students**

Students are expected to:

#### **1. Reliability and Responsibility**

- a. act at all times in an ethical, responsible, and dependable manner.
- b. admit errors and accept responsibility for one's own actions.
- c. maintain a strictly honest approach to all activities so as to be deemed worthy of trust.
- d. treat fellow students, faculty, administrators, and staff with respect, empathy, compassion and sensitivity.
- e. complete assigned tasks in a timely and responsible manner.
- f. arrive on time for scheduled activities.
- g. maintain composure during difficult interactions.
- h. report inappropriate behavior (academic misconduct, i.e. cheating, plagiarism, forgery, etc).
- i. respond promptly when contacted whether by personal or electronic means.
- j. observe all regulations for good laboratory practice and university compliance including those set forth by IACUC, IRB, and Drexel University Dept. of Safety and Health.

**Students who repeatedly violate safety regulations may be sent a letter of warning from their mentor, which will be copied to the Director of the Division of Biomedical Science Programs. Any subsequent violations may result in the loss of stipend for a minimum of one month and possible dismissal from the program.**

**2. Self-Awareness**

- a. demonstrate an ability to identify areas of deficiency in one's own performance; attend to one's own well-being.
- b. accept constructive criticism and modify behavior based on feedback.
- c. project a professional image in interpersonal relationships, manner, dress and communication (including electronic) that is consistent with that expected of a member of the scientific community and the academy.
- d. demonstrate self-motivation and accountability for one's own learning.
- e. request help from appropriate support structures when needed.

**3. Team-building and communication**

- a. facilitate communication among peers, faculty and staff.
- b. provide supportive and constructive feedback.
- c. listen to others respectfully and attentively and resolve conflicts in a collegial manner.
- d. discuss colleagues in a respectful manner.
- e. credit others for their contributions to shared work.
- f. attend classes, journal clubs, seminars and meetings for their full duration, and prepare appropriately for these activities.
- g. Demonstrate accountability when unable to fulfill responsibilities.

**4. Student meetings with faculty or staff**

- a. A student may not bring another person into a meeting with a faculty or staff member.
- b. A student may invite someone for moral support, transportation, etc., who waits outside during the meeting.
- c. Faculty or staff may request other faculty or staff to participate in the meeting.
- d. If a student signs a FERPA waiver to provide informational access for a designated person and the faculty or staff member deems it important to speak with that designated person, they may do so either before or after the meeting. Faculty or staff may choose to meet with the student and designated person together for part or all of a meeting, but are not required to do so.

## **Citation and Referencing Guidelines**

### **Guidelines**

The following guide is based on the approved standards of the *Publication Manual of the American Psychological Association, 6<sup>th</sup> Edition* (Washington, D.C.: American Psychological Association, 2016) style of referencing and is meant as a supplemental resource for research graduate students.

This guide is written for graduate students, by graduate students, and is certified by the biomedical graduate faculty.

**I. What types of materials should I reference?**

- ✓ Direct quotes from a book, journal article, film, letter, email, lecture, etc.
- ✓ Single words, short phrases, sentences and longer passages quoted from books, journal articles, lectures, etc.
- ✓ Ideas you draw from a source but present entirely in your own words.
- ✓ Paraphrases and summaries of books, journal articles, pamphlets.
- ✓ Comments made by professors in lectures.
- ✓ Statistics.
- ✓ **Websites:** In most of the take-home exams or any kind of written scientific documents, materials from personal websites or online encyclopedias are not preferred. It is always better to go to the primary literature/published paper for the information. In case of talks or presentations, it is reasonable to take figures from websites, but they must be referenced at the bottom of the slide. One can copy the website from the page and paste it.
- ✓ **Books/Text books:** Detailed information obtained from textbooks should be cited in your documents. In this case, it is important to give the name of the book, the publishers and the page number.
- ✓ **Published paper:** Direct quotes from any articles should have the first author, year and page number at the end of the sentence in parenthesis and the direct quotes should be in quotation marks. Any information or idea or hypothesis taken from articles should be referenced even if they are paraphrased in the text.

**II. Referencing a given concept, idea, methodology and/or result.**

**Examples:**

**Journal article**

[Original text taken from the *Journal of Neuroscience Methods* **54** (1994) 205-218.]

Original text: *The light path is mounted on a computer-controlled XYZ stage that allows the position of the spot to be easily moved in small increments. We then photostimulate at various sites in the slice. The brief pulse of glutamate causes a small group of neurons to fire action potentials. If a photo-activated neuron is presynaptic to the neuron from which we are recording, a synaptic potential is produced in the recorded cell. By placing the motorized XYZ stage under computer control, the pattern of inputs onto a single cell can be mapped with exquisite precision [1].*

**Summary/Paraphrasing:**

In Text - A laser light beam allows or “uncages” glutamate so that it may activate a small group of neurons which will in turn fire action potentials within a spatially confined area. This process can then be repeated at various sites within the slice preparation and computer software can be used to better control the movement of the laser light allowing the precise mapping of the inputs onto a single recorded neuron (Katz & Dalva, 1994)\*.

\*For one author (Waterhouse, 2005)

\*For two authors (Katz & Dalva, 1994)

\*For three to five authors (Simmon, Cappella, Lands, Rosen, & Byssby, 1976)

\*For six or more authors (Simmon et al., 1976)

\*Subsequent references (Simmon et al., 1976)

\*Subsequent references in the same paragraph (Simmon et al.)

**Direct Quoting:**

In Text - As the authors point out, “if a photo-activated neuron is presynaptic to the neuron from which [they] are recording, a synaptic potential is produced in the recorded cell” (Katz and Dalva, 1994, pg 207).

Reference - Katz, L.C. & Dalva, M.B. (1994). Scanning laser photostimulation: a new approach for analyzing brain circuits. *J Neurosci Meth*, 54, 205-218.

**Book:**

In-Text

One author - (Kendel, 2005)

Two authors – (Kendel & Howland, 2005)

Three or more – (Kendel, Howland, Smith, & Basso, 2005)

Subsequent – (Kendel et al, 2005)

Reference: Kendel, L., & Howland, D. (2005). *The new brain*. New York: Franklin Koss.

**Internet:**

In-Text - (American Psychological Association [APA], 2006)

Subsequent - (APA, 2006)

Reference - Electronic reference formats recommended by the American Psychological Association. (2000, October 12). Retrieved May 9, 2006, from <http://www.apa.org/journals/webref.html>

[1] Katz, L.C. & Dalva, M.B. (1994). Scanning laser photostimulation: a new approach for analyzing brain circuits. *J Neuro Methods*, 54, 205-218.



Research report

## Sex-related differences in MAPKs activation in rat astrocytes: effects of estrogen on cell death

Lei Zhang<sup>a</sup>, Beng shing Li<sup>d</sup>, Weqing Zhao<sup>d</sup>, Yoong H. Chang<sup>b</sup>, Wu Ma<sup>c</sup>, M. Dragan<sup>b</sup>, Jeffery L. Barker<sup>b</sup>, Qian Hu<sup>b</sup>, David R. Rubinow<sup>a,\*</sup>

In order to study possible sex-related differences in effects of E<sub>2</sub> on cell proliferation in astrocytes, we first analyzed DNA synthesis ([<sup>3</sup>H]thymidine incorporation) in male and female astrocytes in the presence and absence of E<sub>2</sub>. We observed decreased [<sup>3</sup>H]thymidine incorporation in astrocyte DNA after exposure to E<sub>2</sub> (10 nM–1 μM) in female astrocytes (Fig. 3A). At 100 nM, E<sub>2</sub> decreased [<sup>3</sup>H]thymidine incorporation by 60±6%, compared with controls; no further decrease was seen at the 1 μM concentration. No effect on [<sup>3</sup>H]thymidine incorporation was seen in female astrocytes at E<sub>2</sub> concentrations ≤10 nM or in male astrocytes at any concentration of E<sub>2</sub> (Fig. 3A).

When using as a direct quote:

“At 100nM, E<sub>2</sub> decreased [<sup>3</sup>H] thymidine incorporation by 60±6%, compared with controls; no further decrease was seen at the 1μM concentration.” (Zhang et al 2002, p.6)

When paraphrasing:

[<sup>3</sup>H] thymidine incorporation was decreased upon E<sub>2</sub> application in the nanomolar concentration, but not at the micromolar concentration, when compared to the control. (Zhang et al 2002).

For the Reference Page:

Zhang L, Li B, Zhao W, Chang YH, Ma W, Dragan M, Barker JL, Hu Q, and Rubinow DR. (2002). Sex-related differences in MAPKs activation in rat astrocytes: effects of estrogen on cell death. *Molecular Brain Research*, 103, 1-11.

### **Using Copyrighted Material in Your Papers**

*As a general rule, copyrighted material cannot be used in your papers without the express written permission of the copyright holder.* Examples of copyrighted material may include written passages, figures, survey instruments, or tables from a published paper or book, for which you are not an author or copyright owner. Note that even material you publish may require permission (see below) for use in a paper.

#### **How do you obtain permission?**

Many journal publishers have online methods that you can use to obtain permission to use copyrighted material from an article. If you cannot find instructions, contact the journal staff directly.

Permission must be granted in writing—a verbal agreement will not suffice, and if you do not receive a response at all from the copyright holder, you must assume permission has not been granted.

If you are the author on a paper, and you plan on using this paper as a chapter in your thesis, you must confirm that you have permission to do so. In most cases, authors retain the right to republish material from a paper they authored in a thesis; this right will often be included in the copyright transfer agreement signed by the authors at the time the paper was accepted, but not always. It is the responsibility of the student to provide to their thesis or dissertation committee the relevant written documentation showing that they have received permission to re-use any copyrighted material in their thesis or dissertation.

#### **Exceptions**

If material is in the public domain, or the copyright has expired, then permission is not required. You should, however, provide documentation to your thesis committee that supports your position.

The fair-use exception allows limited use of copyrighted materials without explicit permission. Thus, for example, small amounts of text may often be quoted without permission (but with appropriate academic citation, of course). Most journals take the position that the fair-use exception does not apply to figures; hence, no figure can be reproduced without permission.

### **Policy for Professional Editing of Papers**

Development of high-level writing skills is considered a key component of training for the Ph.D. and Master's degrees offered by the Graduate School of Biomedical Sciences and Professional Studies. In the spirit of this objective, it is not permitted for graduate students to engage the services of professional editors or illustrators in the preparation of thesis or dissertation documents, or in papers for courses. The exceptions to this policy are sections of the thesis or dissertation that have been submitted for publication or published in scientific journals.

#### **All theses and dissertations should include the following acknowledgment:**

*Sections of this (thesis or dissertation) that have been published or submitted for publication may have undergone external editing for language but not content.*

## **Graduation – Division of Biomedical Science Programs**

### **Graduation Requirements**

The BMedSci Executive Committee sets minimum requirements that are applicable to all graduate programs. Each student will be required to document completion of various milestones by submitting forms at different times throughout the graduate career. The final forms must be submitted to the Graduate Office prior to or at the time of the final thesis defense. Individual programs may impose additional requirements, but they may not waive the general requirements. Students should consult their program guidelines for the requirements of a particular degree. Students may also wish to contact their program director for further information. A minimum grade point average of 3.00 is required of all degree candidates for graduation.

The following conditions must be met in order for a student to receive a degree:

An application for degree form must be filed via DrexelOne no later than the published deadline.

The number of credits required for the program in which the student is enrolled must be completed.

All specific course requirements for the program in which the student is enrolled must be completed.

The minimum cumulative GPA specified by the program in which the student is enrolled for all coursework undertaken at Drexel University must have been earned.

At least half of the courses required for a student's specific program must be completed at Drexel.

A student must be matriculated in his/her school during the last semester in which coursework is taken.

All grades for required courses must be submitted to the Office of the University Registrar. No student will be approved for a degree while a grade for any course on the academic record remains outstanding.

A student must receive final academic clearance from their program for graduation.

Copies of the thesis or dissertation, if appropriate, must be submitted to the library through ProQuest and final paperwork including confirmation of ProQuest submission must be received by the Graduate Office by the deadline published in the academic calendar.

Students must satisfy all financial obligations to the University in order to receive their diploma.

The name on a student's diploma must match his/her name on the academic record. A student can change his/her name, but it must be done before the last day of classes in the semester in which their degree is to be awarded.

If for any reason a student does not meet all requirements for graduation, that student cannot graduate until the semester in which all requirements are met.

If a student completes all requirements for graduation in any semester prior to the spring semester, the degree will be awarded in the semester in which the requirements are met, and the student will be invited to participate in the next spring commencement ceremony.

### **Individual Development Plans**

The Graduate School of Biomedical Sciences and Professional Studies, within Drexel University College of Medicine, requires Individual Development Plans (IDPs) of all doctoral graduate students and postdoctoral researchers within the School and the College. Although the precise format of the IDP is up to the trainee and his/her mentor, we suggest that the MyIDP website (<http://myidp.sciencecareers.org/>) offers an excellent IDP template and clear instructions on how to construct a strong and useful IDP. Doctoral students and postdocs must review IDPs with their mentors at least every 12 months. Masters students are recommended to do the same.

### **Commencement**

Students are permitted to participate in the College of Medicine commencement exercises if all requirements for the graduate degree have been completed by the deadlines set forth in the academic calendar. Students must separately request to graduate and to attend commencement. Exceptions to this policy are only granted by approval of the Division Director of the Biomedical Science Programs or the Associate Dean for Educational and Academic Affairs.

### **Survey of Earned Doctorates**

The Division of Biomedical Science Programs participates in the annual Survey of Earned Doctorates distributed by the National Science Foundation. Each doctoral candidate is required to complete the survey when submitting his/her thesis. Students are required to provide confirmation of survey completion to the Graduate Office.

### **Graduation Exit Survey**

Each doctoral and master's candidate will be required to complete a Graduation Exit Survey. Students will receive an email prompting them to complete the survey online.

### **Graduation Requirements: Doctor of Philosophy Degree (Ph.D.)**

Ph.D. degree programs provide students with a comprehensive view of a field of knowledge and offer training in methods of research and scholarship in that field and closely related areas. The minimum requirements for the Ph.D. degree are given below. Individual programs may impose additional requirements.

Candidates accepted directly into a Ph.D. program following completion of a baccalaureate degree must complete a minimum of 96 graduate credits. Students entering a Ph.D. program after completing a master's, M.D., or other master's equivalent program must complete a minimum of 60 graduate credits. M.D./Ph.D. students, after successful completion of the first two years of Medical School, will be required to complete a minimum of 60 graduate credits for the completion of the Ph.D. degree portion of the program. All requirements must be completed within seven years from the date of matriculation for the Ph.D. degree (nine years for students in the M.D./Ph.D. program).

All Ph.D. students are required to register for a minimum of 9 credits of approved courses. The definition of major and related fields as applied to the Ph.D. degree in a given program is determined by the program director and faculty members who are directly responsible for the program. All work in related fields must be completed prior to admission to the qualifying examination.

Up to 20 credits may be transferred from an accredited institution under limited and controlled conditions. Once matriculated, a student must register each semester (excluding summer sessions) or be on approved leave of absence.

A minimum of two academic years consisting of four semesters of full-time residency is required for the Ph.D. degree; the semesters do not have to be consecutive. Nine credit hours is the minimum number constituting full-time work in a given semester.

To fulfill the requirements for the Ph.D. degree, a student must pass a qualifying examination, usually given at the end of their second year, prior to the final dissertation defense. The conduct and judgment of the performance on the exam is the province of the examination committee. To be recommended for promotion to doctoral candidacy, the student must receive a favorable vote of the members of the examination committee.

Every doctoral candidate is required to present a dissertation based on original work. The dissertation must be acceptable in both scholarship and literary quality. An abstract of 350 words or fewer must be included with the thesis.

After completion of the residency requirement and the qualifying examination and with the approval of the major advisor and program director, a candidate may present for the final dissertation defense. The dissertation committee will decide on the merits of the candidate's performance on the dissertation defense. The dissertation committee will recommend approval for the degree to the BMedSci Division Director, who will have final approval.

All costs of preparation, reproduction, and binding (personal copies) are the responsibility of the candidate.

A minimum cumulative grade point average of 3.00 is required of all Division of Biomedical Science Program degree candidates for graduation.

### **Advisory Committee (or Program Steering Committee) - Ph.D.**

The Program Steering Committee serves as the student's advisory committee until the student passes their Qualifying Examination (typically during their first two years of study), although this task may be assigned to a smaller advisory committee. This committee is primarily responsible for the student's development. This committee must have at least three members. Instructors and research associates may serve on the advisory committee. Advisory committees may utilize the judgment, assistance or advice of a larger group to the extent that they consider it helpful. The advisory committee chairperson must be tenure-track faculty.

A student may request a change in the membership of his/her advisory committee with the approval of all members of the existing committee. Notice of such change must be filed with the Graduate Office. No such change may be made by a student for the degree of Ph.D. after they have formed their Dissertation Committee, except with the approval of the Program Director. A vacancy on an advisory committee caused by the absence of a faculty member may be filled by the Program Director on joint recommendation of the candidate and the members concerned.

### **Examination Committees – Ph.D.**

Examination committees for the Preliminary Exam and Qualifying Exam will be composed of graduate faculty from the student's program and will be responsible for administering preliminary and qualifying examinations. In some programs, this committee may be the same as the advisory or dissertation committee. Committee members are approved by the program.

### **Policy on Conflict of Interest in Formation of Student Committees**

During the education and training of a Ph.D. candidate, guidance and evaluation are provided by multiple mechanisms. These evaluation mechanisms include those provided by the Preliminary Examination Committee, Qualifying Examination Committee, and the Dissertation Research Committee. To ensure that evaluations are objective, the membership of these committees must adhere to the following guidelines:

1. Committees cannot include any individual who is a spouse or other family member of the student or the dissertation advisor.
2. A spouse or family member of the dissertation advisor, if an independent faculty member with an independent research program, can serve on the dissertation committee but not as a voting member.
3. Potential financial conflicts of interest must be identified through declaration of any financial interests in the student's research by the student, advisor, or committee member. Such circumstances are also subject to disclosure and review as per the University's Conflict of Interest policy.
4. The chair of the dissertation committee cannot be a co-author on a publication generated from data presented as part of the student's dissertation research.
5. Individuals with any potential conflict of interest should provide guidance in informal ways or as non-voting members of the committee.
6. Requests for exceptions to this policy must be made in writing to, and will require approval of, the BMedSci Executive Committee.

### **Preliminary Examination – Ph.D.**

At the end of the first academic year, students are required to pass a preliminary examination. The conduct and judgment of the performance in this examination is determined by the pertinent program or at the program's discretion. Individual programs may set the preliminary examination at another time or waive it entirely, if a student is deemed to show equivalent competency in their program.

If a student fails to pass the preliminary examination, reexamination shall be allowed only upon recommendation of the examination committee. The student must present his/her reexamination within three months of the failed preliminary examination. Presentation for reexamination must be approved by the program director.

### **Qualifying Examination – Ph.D.**

To fulfill the requirements for candidacy for the Ph.D. degree, a student must pass a qualifying examination. The conduct and judgment of the performance in this examination is determined by the pertinent program or at the program's discretion, of an appropriately constituted examination committee.

The qualifying examination is usually taken after completion of two academic years of graduate study but no later than the end of the third year of study. The examination may be oral and/or written. The primary purposes of this examination are to ascertain whether the student is qualified to continue to work for the doctorate and, if so, to aid in planning the remainder of the student's graduate program.

Before presenting for the qualifying examination, the student must have the approval of his/her advisory committee and the program director in which the dissertation work is to be conducted.

To be recommended for promotion to candidacy, the student must receive a favorable vote of the members of the examination committee. Documentation that the Qualifying Exam has been successfully completed must be submitted to the Graduate Office.

If a student fails to pass the qualifying examination, reexamination shall be allowed only upon recommendation of the examination committee. The student must present his/her reexamination within three months of the failed qualifying examination. Presentation for reexamination must be approved by the major advisor and the program director in which the dissertation work is being conducted.

#### **Dissertation Committee – Ph.D.**

The committee will be comprised of five voting members. At least three of the five voting members must be graduate faculty from the same program as the student's discipline and one voting member on the committee must be outside of the program and the College of Medicine. No more than three members may have their primary appointment in one department. Members from outside Drexel University must be approved by the BMedSci Executive Committee.

The chair of the dissertation committee must have the rank of Assistant Professor or higher within the program that appoints the chair. The chair must be a tenure track faculty member within the College of Medicine. Full-time faculty with research prefix or non-tenure track status and adjunct graduate faculty within the College of Medicine may serve as dissertation committee members.

The committee should be formed by the end of the second year of study. The absolute deadline for submission of the composition of the committee for approval by the program steering committee and certification by the Graduate Office is no later than the end of the third year of study.

The committee will assume supervision of the student's graduate education and work with the program director to ensure compliance with all graduate program and university policies. The faculty member under whom the student elects to conduct dissertation research will be the student's primary research advisor. Only tenure track graduate faculty may serve as the student's primary research advisor. The primary research advisor cannot serve as the chair of the dissertation committee. Full-time faculty with research prefix or non-tenure track status may serve as co-advisors.

Should a doctoral candidate's research mentor leave the university, the student should apply to transfer to the mentor's new institution, if he or she would like to stay with that mentor. Otherwise, the student's Program Director will help them find a new mentor at Drexel. Students who have successfully completed their qualifying exams may appeal to the Academic Affairs Committee to remain Drexel students and work with the mentor at the new institution.

#### **Dissertation and Dissertation Defense - Ph.D.**

A candidate for the Ph.D. degree is required to present a dissertation based upon original research work. It is the policy of the Division of Biomedical Science Programs that a graduate student must conduct dissertation work under the supervision of a member of the graduate faculty.

A candidate for the Ph.D. degree must pass a final dissertation defense covering the thesis and related topics. The examination will be conducted by the student's dissertation committee, and all faculty members and graduate students are invited to participate. In rare circumstances the dissertation committee may permit a non-public defense.

The Graduate Office must be notified in writing of the time, date and place of the examination at least two weeks prior to the time scheduled by filling out the official Notification of Intent to Defend Form so the information may be disseminated. An abstract of 250 words or fewer in length must be included in the notification.

The dissertation must be acceptable in both scholarship and literary quality. The style and form of the dissertation should be commensurate with established Graduate School policy. An abstract of 350 words or fewer in length must

be included with the dissertation. It is recommended that students obtain a current copy of “*Thesis Manual*” available online and from the Graduate Office.

At least two weeks prior to the date of graduation, printed copies of the dissertation shall be distributed to each member of the dissertation committee, unless the members specify that they would prefer electronic copies.

A candidate may not present for the final dissertation defense until he or she has completed six months of residence after satisfactory completion of the qualifying examination and has the approval of the major advisor and the major program concerned. The dissertation defense must be held on a Drexel University campus. The dissertation defense may not be held later than four weeks prior to the expected date of graduation as specified by the published academic calendar, unless approved by the Associate Dean of Educational and Academic Affairs.

The dissertation committee shall decide upon the merits of the candidate's dissertation and performance on the dissertation defense. To be recommended for the doctoral degree, the candidate must receive approval of all of the voting members of the committee. The dissertation committee will recommend approval for the degree to the BMedSci Division Director, who will have final approval.

If there are one or two dissenting votes, the candidate will be rescheduled for one reexamination within three to six months. Three or more dissenting votes constitute a failure of the final dissertation and the dissertation defense. The basis for the failure must be documented and filed in the Graduate Office.

In such cases where a student fails the final dissertation defense, the committee may reschedule the student for one reexamination, within six months to one year of the original examination date. A failure of any reexamination may be appealed to the Academic Affairs Committee.

No later than one week prior to the expected graduation date, an electronic copy of the dissertation must be submitted to the library through ProQuest and final paperwork including confirmation of ProQuest submission must be received by the Graduate Office by the deadline published in the academic calendar. The Chair of the dissertation committee must complete a Certification of Dissertation form. The student must submit the Graduate Completion Form.

All costs of preparation, reproduction and binding (personal copies) are the responsibility of the candidate.

#### **Graduation Requirements: Master of Science (M.S.) - Non-Thesis**

The M.S. degree can be obtained with or without a thesis. A thesis is defined as a document detailing the background, methods, results and discussion of an experimentally-based research project. A non-thesis M.S. includes the potential for performance of research without the requirement for a thesis. Each student in the non-thesis M.S. program is required to write a detailed review paper and spend a designated number of hours working with an advisor under whose supervision the paper will be written.

Each program has a specific plan for implementation of the non-thesis M.S. Detailed guidelines can be found in the program's policies and procedures manual. The minimum requirements for a M.S. without thesis include:

- 36 credit hours, including course work and research electives, with a 3.00 or higher GPA—receipt of credit requires a 3.00 in a course. The core curriculum is required for Biochemistry, Biotechnology, Cancer Biology, Microbiology and Immunology, Molecular and Cell Biology and Genetics, Neuroscience and Pharmacology and Physiology programs.
- Preparation of a scholarly paper based on the literature that reviews a topic in detail
  - Paper should include primary references and be 25-40 double spaced pages (not including an alphabetized list of cited references on additional pages).

**Successful completion of the requirements will be verified by an advisory committee appointed by the graduate program, which will recommend approval to the BMedSci Division Director for final approval.**

### **Graduation Requirements: Master of Science (M.S.) - Thesis**

The M.S. degree programs are designed to provide advanced technical and scientific study to prepare students to enter a specialized field or a doctoral program. A minimum of 48 semester hours is required after completing a baccalaureate degree. For programs that offer the Master of Science degree for which the M.D. is a prerequisite, a minimum of 30 graduate credits are required after completing an M.D. degree. Transfer of up to 20 credits may be allowed from an accredited graduate institution under limited and controlled conditions.

Once matriculated a student must register each semester (except summer session) or be on an approved leave of absence. All course work must be completed within four years of the date of matriculation. There are no residency requirements for M.S. degrees; however they may be stipulated by individual programs.

To fulfill the requirements for the M.S. degree a student must pass a preliminary examination and present a thesis based on original research work. Individual programs may waive the preliminary examination or have additional requirements. The thesis must be acceptable in both scholarship and literary quality. The conduct and judgment of performance in the examination and the defense of the thesis is the province of the thesis committee. The thesis committee will recommend approval for the degree to the BMedSci Division Director, who will have final approval.

A minimum cumulative grade point average of 3.00 is required of all Division of Biomedical Science Programs degree candidates for graduation.

### **Advisory Committee (or Program Steering Committee) – M.S.**

The Program Steering Committee usually serves as the student's advisory committee during their first year of study, although this task may be assigned to a smaller advisory committee. This committee is primarily responsible for the student's development. This committee must have at least three members. Instructors and research associates may serve on the advisory committee. Advisory committees may utilize the judgment, assistance or advice of a larger group to the extent that they consider it helpful. The advisory committee chairperson must be of professional rank.

A student may request a change in the membership of his/her advisory committee with the approval of all members of the existing committee. Notice of such change must be filed with the Graduate Office. No such change may be made by a student for the degree of M.S. after they have formed their Thesis Committee, except with the approval of the Program Director. A vacancy on an advisory committee caused by the absence of a faculty member may be filled by the Program Director on joint recommendation of the candidate and the members concerned.

### **Examination Committees – M.S.**

Examination committees for the Preliminary Exam will be composed of faculty from the student's program and will be responsible for administering preliminary examinations. In some programs, this committee may be the same as the advisory committee. Committee members are selected by the program

### **Policy on Conflict of Interest in Formation of Student Committees**

During the education and training of a M.S. candidate, guidance and evaluation are provided by multiple mechanisms. These evaluation mechanisms include those provided by the Preliminary Examination Committee (if required by the specific program) and/or the Thesis Research Committee. To ensure that evaluations are objective, the membership of these committees must adhere to the following guidelines:

1. Committees cannot include any individual who is a spouse or other family member of the student or the thesis advisor.
2. A spouse or family member of the thesis advisor, if an independent faculty member with an independent research program, can serve on the thesis committee but not as a voting member.
3. Potential financial conflicts of interest must be identified through declaration of any financial interests in the student's research by the student, advisor, or committee member. Such circumstances are also subject to disclosure and review as per the University's Conflict of Interest policy.
4. The chair of the thesis committee cannot be a co-author on a publication generated from data presented as part of the student's thesis research.
5. Individuals with any potential conflict of interest should provide guidance in informal ways or as non-voting members of the committee.



6. Requests for exceptions to this policy must be made in writing to, and will require approval of, the BMedSci Executive Committee.

#### **Preliminary Examination – M.S.**

Students may be required to pass a preliminary examination. The conduct and judgment of the performance in this examination is determined by the pertinent program or at the program's discretion. The Preliminary Exam may be waived for M.S. candidates at the discretion of the student's program.

#### **Thesis Committee – M.S.**

The committee will be comprised of three voting members. Two voting members must be graduate faculty from the same program as the student's discipline and one voting member must be from a program other than that of the major field or from outside the College of Medicine. Members from outside the University must be approved by the BMedSci Executive Committee.

The chair of the thesis committee must have the rank of Assistant Professor or higher within the program that appoints the chair. The chair must be a tenure track faculty member within the College of Medicine. Full-time faculty with research prefix or non-tenure track status and adjunct graduate faculty within the College of Medicine may serve as thesis committee members.

The committee should be formed by the beginning of the second year of matriculation. Absolute deadline for submission of the composition of the committee for approval by the program steering committee and certification by the Graduate Office is no later than the end of the fall semester of the second year of matriculation.

The committee will assume supervision of the student's graduate education and work with the program director to ensure compliance with all graduate program and university policies. The faculty member under whom the student elects to conduct thesis research will be the student's primary research advisor. Only tenure track graduate faculty may serve as the student's primary research advisor. The primary research advisor cannot serve as the chair of the thesis committee. Full-time faculty with research prefix or non-tenure track status may serve as co-advisors.

Should a master's candidate's research mentor leave the university, the student should apply to transfer to the mentor's new institution, if he or she would like to stay with that mentor. Otherwise, the student's Program Director will help them find a new mentor at Drexel.

#### **Thesis and Thesis Defense - M.S.**

A candidate for the M.S. degree is required to present a thesis based upon original research work. It is the policy of the Division of the Biomedical Science Programs that a graduate student must conduct thesis work under the supervision of a member of the graduate faculty.

A candidate for the M.S. degree must pass a final thesis defense covering the thesis and related topics. The examination will be conducted by the student's thesis committee. The thesis defense must be held on a Drexel University campus. All faculty members and graduate students are invited to participate.

The Graduate Office must be notified in writing of the time, date and place of the examination at least two weeks prior to the time scheduled by filling out the Official Notification of Intention to Defend form so the information may be disseminated.

The thesis must be acceptable in both scholarship and literary quality. The style and form of the thesis should be commensurate with established Graduate School policy. It is recommended that students obtain a current copy of "*Preparing Your Thesis*" available online and from the Graduate Office.

At least two weeks prior to the date of graduation, printed copies of the thesis shall be distributed to each member of the dissertation committee, unless the members specify that they would prefer electronic copies.

A candidate may not present for the final thesis defense until the approval of the major advisor and the major program is secured. The thesis defense may not be held later than four weeks prior to the expected date of graduation as specified by the published academic calendar, unless approved by the Associate Dean of Educational and Academic Affairs.

The thesis committee shall decide upon the merits of the candidate's thesis and the performance on the thesis defense. To be recommended for the master's degree, the candidate must receive approval of all voting members of the committee. The thesis committee will recommend approval for the degree to the BMedSci Division Director, who will have final approval.

If there is one dissenting vote, the candidate will be rescheduled for one reexamination during the following three to six months. Two or more dissenting votes constitute a failure of the final thesis and the thesis defense. The basis for the dissent must be documented and filed in the Graduate Office.

In such cases where a student fails the final thesis defense, the committee may reschedule the student for one reexamination, within six months to one year of the original examination date. A failure of reexamination is automatic grounds for dismissal may be appealed to the Academic Affairs Committee.

No later than one week prior to the expected graduation date, an electronic copy of the thesis must be submitted to the library through ProQuest and final paperwork including confirmation of ProQuest submission must be received by the Graduate Office by the deadline published in the academic calendar. The Chair of the thesis committee must complete a Certification of Thesis form. The student must submit the Graduate Completion Form.

## **Graduate Student Affairs**

### **Graduate Student Government**

The Graduate Student Association (GSA) is the student government organization of the Graduate School of Biomedical Sciences and Professional Studies. The overall purpose of the GSA is to promote communication, understanding and intellectual stimulation among graduate students, the University, and the community at large.

All graduate students are voting members and are encouraged to contribute their time and services to the activities of the GSA.

The GSA elects student representatives as voting members for several standing and ad hoc committees of the Division of Biomedical Science Programs and the University. These appointments provide an avenue for students to actively participate in all levels of the University's governmental system and ensure that the graduate student body is kept informed of Division of Biomedical Science Programs and University policy matters. Graduate students serving on such committees must maintain a minimum grade point average of 3.00.

The GSA sponsors annual events open to all students and faculty. The GSA sponsors and/or participates in inter- and intramural sports, Discovery Day, Commencement, and New Student Orientation.

### **Electronic Communication and Web Presence**

**All electronic communication regarding academic matters must originate from or be sent to the student's Drexel email.** The student is responsible for checking and maintaining their Drexel email mailbox for communication from the Graduate School and Drexel University.

All students must recognize the importance and potential impact of their personal web presence in the public domain.

1. Students may not blog or post to websites ANY information which may breach confidentiality or identify patients.
2. Students are NOT permitted to post information which is defamatory in nature relating to patients, their families, peers, classmates or faculty.
3. A student's web presence on social media sites such as Facebook, Instagram, Twitter, SnapChat or other publicly accessed sites may not contain information or references to patients which may identify patients, their diagnoses, treatment plans, potential complications or outcomes.
4. Students may not post information which compromises the academic integrity of the College of Medicine. Such information would be considered to include examination or other assessment questions and answers to such questions, which are not uniformly available to all students in the College of Medicine.
5. Violations of these policies will be considered a violation of the Code of Academic Integrity and will be and will be dealt with as an instance of academic misconduct. Violations of these policies may result in academic sanction including dismissal from the College of Medicine.

### **Discovery Day – College of Medicine Annual Research Day**

Discovery Day is an annual event designed to celebrate the research accomplishments of students and fellows affiliated with Drexel University College of Medicine. This event is hosted by the graduate students and the Graduate School and involves current graduate students, alumnae/i, medical school students, postdoctoral fellows, technicians, residents/clinicians, summer research students, regional undergraduates, and faculty members. Selected graduate students present posters and research papers, followed by a lecture from a keynote speaker and an evening dinner and awards banquet.

### **Professional Societies**

Philadelphia is the location of a large number of colleges, universities, research institutes, industrial research laboratories, and a variety of professional and hospital service laboratories. Local branches or sections of major professional societies hold regular meetings throughout the year. Graduate students are encouraged to become active members of the local societies and to participate in their meetings and discussions.