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The following documents are available from the Graduate Office and online at the Graduate Division web-site (www.aecom.yu.edu/sggd):

1. Charter of the Graduate Student Council
2. AECOM Policies on Equal Opportunity, Affirmative Action and Sexual Harassment
3. AECOM Policy on Scientific Misconduct
4. AECOM Patent Policy
5. AECOM Conflict of Interest Policy
6. AECOM Guidelines for Use of the College Name

The following forms are available at the Graduate Division web-site (www.aecom.yu.edu/sggd) and from departmental administrators:

1. Rotation Evaluation Form
2. Laboratory Declaration Form
3. Thesis Advisory Meeting Report
4. Qualifying Examination Form
5. Thesis Defense Committee Form
6. Thesis Defense Form
Graduate Program in Biomedical Sciences
Albert Einstein College of Medicine
of Yeshiva University

The Ph.D. degree offered by the Sue Golding Graduate Division of the Albert Einstein College of Medicine (hereafter referred to as the “Graduate Division”) is an affirmation of the student's ability to conduct independent and original research. This degree is achieved by completing a prescribed curriculum and a period of research supervised by a faculty member holding an appointment in one of the basic sciences departments (Section 2). The Academic Policies of the Graduate Division are detailed below and will be reviewed annually by the Graduate Committee (Section 2). It is the prerogative of the individual departments that comprise the Graduate Division to enforce more rigorous standards of academic performance. In addition to the guidelines presented within this document, students are expected to meet the standards of professional behavior expected of all members of the College of Medicine. Copies of several applicable College policies are included as Appendices or available in the Graduate Office. Additional updates may be issued from time to time.

Section 1
Supervising Faculty and Staff

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Betty Diamond  x2128  diamond@aecom.yu.edu
Director, Medical Scientist Training Program
Faculty Representatives to the Graduate Committee:

Thomas Meier .................................. Anatomy & Structural Biology
Mark Girvin......................................Biochemistry
Barbara Birshstein ............................ Cell Biology
Ari Melnick .................................... Developmental & Molecular Biology
Kami Kim ....................................... Microbiology & Immunology
Greg Prelich .................................. Molecular Genetics
Jonathan Backer .............................. Molecular Pharmacology
Gary Bassell .................................. Neuroscience
Celia Brosnan .................................. Pathology
Linda Jelicks ................................. Physiology & Biophysics

Section 2
Organization of the Graduate Division

The Graduate Division is composed of the ten basic science departments that are accredited by the State of New York to confer the Ph.D. degree (Section 3). Faculty holding primary or secondary appointments in one of these departments may sponsor a Ph.D. candidate. The graduate departments are: Anatomy and Structural Biology, Biochemistry, Cell Biology, Developmental and Molecular Biology, Microbiology and Immunology, Molecular Genetics, Molecular Pharmacology, Neuroscience, Pathology, Physiology and Biophysics.

The requirements for the Ph.D. degree are designated by each department subject to the academic policies of the Graduate Division. The departmental programs provide students with flexibility in designing their thesis studies. Students are responsible for acquainting themselves with the academic policies of the specific department in which they will conduct their thesis research. The academic policies of the Graduate Division are outlined in this guide. A summary of departmental guidelines is found in Appendix I. Complete descriptions of departmental guidelines may be obtained from departmental offices.
The policies and guidelines described in this document apply to all Ph.D. candidates except when they are superseded by the applicable policies of the Medical Scientist Training Program (MSTP) for students matriculated in that program. All authorities and responsibilities not specifically assigned to the Directors, the Committees of the Graduate Division or the MSTP Steering Committee reside with the individual departments that constitute the Graduate Division. The organization of the Graduate Division is shown below:

The Directors and Committee Chairpersons of the Graduate Division are responsible for assuring the quality of the academic program, uniform implementation of Graduate Division policies and fair treatment for the students and faculty of the Graduate Division. The Director of the Graduate Division and the Director of the Medical Scientist Training Program are responsible for implementing and guiding the development of the academic policies of the Graduate Division. The Director of the Graduate Division selects the chairs of the sub-committees of the Graduate Committee.

The Associate Director has a Ph.D. with postdoctoral training, and has a faculty appointment within an appropriate department. The Associate Director assists the Director, with a primary focus on graduate student recruitment and career and curriculum development, in order to improve the graduate program.

The Graduate Office, under the direction of the Assistant Director, administers the Graduate Division. Specific responsibilities of the Assistant Director include administrative management and preparation of training grant and Graduate Division budgets. The Assistant Director also serves as the Admissions Officer and Registrar for the Graduate Division.
Graduate Committee. The Graduate Committee is the policy-making body of the Graduate Division and is comprised of representatives from each of the basic sciences departments, three students selected by the Graduate Student Council (GSC, Appendix II), the Associate Director of the Graduate Division, the Director of the MSTP program and the Director of the Graduate Division, who serves as Chair (see below). Representatives will be chosen following GSC or departmental policies and will serve two to three year terms. The Committee approves all additions or changes to policy of the Graduate Division, approves the composition of thesis defense committees, approves the format of departmental qualifying examinations, and approves changes or additions to the Graduate Curriculum. Its members provide direct representation and feedback to and from the Department faculty. All members are voting members and a two-thirds majority yea vote of members is required for approving decisions. For a quorum, at least 6 Departments must be represented by voting Faculty. The Director and Associate Director may represent his or her own Department if the Departmental Representative is absent. There are four sub-committees of the Graduate Committee:

1) The Admissions Committee is comprised of representatives from each of the basic sciences departments and one member at large from the Minority Affairs Committee. The Admissions Committee makes recommendations to the Director regarding the acceptability of applicants for matriculation in the Graduate Division (Section 4).

2) The Curriculum Committee is responsible for the development, implementation and review of the Graduate Curriculum. The Curriculum Committee is composed of ten graduate faculty with one from each department, and three students elected by the GSC. Faculty representatives to the Curriculum Committee need not be course leaders. Individual faculty and student members may not serve concurrently on the Graduate Committee and the Curriculum Committee. The Curriculum Committee is responsible for developing curriculum policy, reviewing course offerings, and recommending new graduate courses for approval. After recommendation for approval by the Curriculum Committee, new graduate courses must receive final approval by the Graduate Committee prior to the start of the semester in which they are offered. Approved courses will be listed in an official announcement at the start of each registration period.

3) The Academic Affairs Committee is composed of representatives from the basic sciences departments and is responsible for overseeing the academic progress of students towards obtaining their Ph.D. degree (see Section 7).

4) The Minority Affairs Committee is composed of faculty and students and is responsible for providing guidance to the Graduate Committee on minority student issues.

Graduate Student Council. The Graduate Student Council is chartered as the representative organization of the students to the faculty and administration.
Section 3
Accreditation of Yeshiva University

Yeshiva University is accredited by the Commission of Higher Education of the Middle States Association of Colleges and Schools. The program in medicine is also accredited by the professional agency in this field. The following are the codes registered by the New York State Education Department for the designated Ph.D. degree granted by Yeshiva University:

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<th>HEIGIS CODE</th>
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<tr>
<td>0425</td>
<td>03774</td>
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<tr>
<td>0499</td>
<td>15259</td>
<td>Physiology &amp; Biophysics</td>
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Section 4
Admission to the Graduate Division

The Albert Einstein College of Medicine is committed to a policy of equal opportunity and nondiscrimination and encourages applications from qualified students regardless of race, color, religion, national origin, sex, age, handicap, marital status or sexual orientation within the meaning of applicable law.

There are several pathways by which students may enter the Graduate Division. First, students accepted into the "rotational pathway" will participate in laboratory rotations during their first two semesters. By the end of their second semester they may apply to, and be accepted by, a thesis mentor and a department (Section 9). Second, students may be accepted directly into a laboratory and a department ("the direct pathway") and will participate in at least one laboratory rotation, agreed upon with their chosen thesis mentor. Students who enter the Graduate Division by this pathway should discuss the structure of their program fully with their prospective thesis mentor and the appropriate Departmental Chair prior to matriculating in the program. Third, students may enter the Graduate Division through the Medical Scientist Training Program. Fourth, students enrolled in the Medical Degree Program of the College of Medicine may enter the Graduate Division through the "alternate pathway program". The academic policies related to the Medical Degree Program for the latter two pathways are available from the Director of the MSTP program.

An applicant for enrollment in the Graduate Division should hold a Bachelor's degree from a college or university of recognized standing or present evidence of an equivalent education. Evaluation of equivalency, including qualifications of foreign students, will be determined by the Director and the Chair of the Admissions Committee. Additional requirements may be established by individual departments for their students and are summarized in Appendix I.
Applications for admission to the Graduate Division will be available online from the Graduate Division web-site (www.aecom.yu.edu/home/sggd) on or near September 1 for entrance the following August. Applications may be submitted after September 15 and all materials should be received by January 1 to guarantee consideration in a timely fashion. Applicants who are participants in the Summer Undergraduate Research Program of the College of Medicine may be interviewed prior to their departure from the campus and have the review of their applications expedited once all supporting materials are received. Applications received after January 1 and before March 15 may be reviewed but admission will be subject to the availability of positions. Applications received after March 15 may be reviewed by the Admissions Committee at the discretion of the Director. Applications will be held over to subsequent years only at the discretion of the Director.

Official transcripts of undergraduate and other academic records, standardized test scores and letters of recommendation are to be submitted by the applicant to the Graduate Office. All application materials should be sent to

Graduate Admissions
Sue Golding Graduate Division
Albert Einstein College of Medicine
1300 Morris Park Avenue
Bronx, NY 10461

It is the student’s responsibility to ensure that the Graduate Office recieves all required materials. Candidates must take the Graduate Record Examination, the result of which should be sent directly to the Graduate Office at the above address (School Code R2997). If the student has also applied to the MSTP program, the MCAT scores can be used in place of the GRE, with approval of the Director. One subject test is recommended, but not required. Letters of recommendation should be mailed directly to the Graduate Office at the above address. Details of the application procedure are described on the Graduate Division web-site.

Applicants from countries where English is not the primary language must take the TOEFL examination. Inquiries about these examinations should be addressed directly to the Educational Testing Service, Princeton, New Jersey, 08540.

Students who are admitted to the Graduate Division through the rotational and direct pathways (Section 2) will matriculate the following August for the fall semester. Students wishing to transfer from another graduate program must follow the same application procedure. A student can only be accepted by the “direct pathway” into a laboratory that has the financial resources for support; a faculty member must be able to commit three years of stipend support for the student commencing at matriculation.
Requirements for Admission. The Graduate Division admits students with diverse undergraduate training. It is generally expected that applicants will have successfully completed undergraduate courses in biology, general chemistry, organic chemistry, mathematics (including calculus), and physics, with laboratory work in biology, chemistry and physics. A course in biochemistry is preferred and strongly recommended. Successful candidates for admission will generally have had significant bench research experience. Students lacking any of the required or recommended courses should carefully review the course curriculum of the Graduate Division and, if possible, complete the necessary courses in the summer preceding their matriculation. It is possible that some of the requirements may be taken after admission to the graduate program with prior written permission of the Director. Inquires should be directed to the Graduate Office.

Section 5
Student Registration and Matriculation

Registration. The Graduate Division operates on the semester system. The fall semester commences in September and ends in January. The spring semester commences in February and ends in June. The period from June - August is used for thesis research and is open to students registered in the previous semester. A detailed Academic Calendar is posted on the Graduate Division web-site and is also available upon request from the Graduate Office.

Course registration is scheduled three times during the academic year - in August for the fall semester, January for the spring semester, and June for the summer semester. Please check the academic calendar for the exact dates. All students officially attending the Graduate Division must register during each of the specified registration periods, even if only taking Thesis Research. It is the student’s responsibility to register each semester according to the published registration deadline. Students not registered by this date will be considered as non-matriculates and payroll will be notified to withhold stipends until further notice. Deferred registration can be granted by the Assistant Director or the Director when a request is made prior to the registration deadline.

In the first two weeks of the semester a student can withdraw from any one course without penalty or notation on the transcript, with the approval of the Director. After this, a request for withdrawal from a course must be made prior to mid-semester and requires the approval in writing of the Course Leader. In addition, first year students must obtain the signature of the Director or Associate Director for course withdrawal. Each semester, the withdrawal date will be published in the Academic Calendar. Students who withdraw prior to mid-semester will be given the grade of Withdrew (W). Students may withdraw from a course following mid-semester only at the discretion of the Director. Withdrawal from a course following mid-semester without permission from the Director will result in a failing (F) grade in the course. For courses of less than a full semester's duration, the withdrawal deadline will be when half of the scheduled lectures have been presented. Outstanding grades of Incomplete (I) will be converted to Withdrawn (W) upon the dismissal of a student (Section 7) from the Graduate Division.
Residency and Required Credit Semester Hours. Matriculated students of the Graduate Division are defined as candidates accepted for Ph.D. training who are engaged in formal courses and/or research training, totaling a minimum of 12 semester hours per semester and 6 research semester hours during the summer. All students are considered full-time, and therefore no employment or coursework outside of the formal Graduate Division Curriculum is permitted, except in rare instances if prior approval is given by the Director. Failure to comply with this policy may lead to dismissal. Students may register for up to 15 semester hours with the written approval of their advisory committee. First-year students will participate in at least 3 semester hours of laboratory research during the spring and fall semesters unless exempted, in writing, by their advisory committee and the Director. Students who have entered a thesis laboratory and department, will determine in consultation with their mentor and advisory committee the number of semester hours of laboratory research to be conducted each semester.

Fifteen hours of lecture, seminar or conference per semester, or 30 hours of laboratory exercises per semester, comprise one semester hour. (i.e., a course given over one semester consisting of 45 hours of lecture and/or conference, constitutes three semester hours.) Full-time supervised research, including instruction at the laboratory bench and conference with the research advisor, is the most important educational component in the training of a research scientist. A semester of full-time supervised research is the equivalent of 12 semester hours.

The residence requirement for the Ph.D. degree consists of a minimum of three years of full-time graduate studies and research totaling 90 semester hours. A minimum of two of these three years, totaling 60 semester hours, must be spent in residence at the Albert Einstein College of Medicine. The Graduate Division does not accept students on part-time status.

Course Credit and Exemption. Students may be granted credit for certain graduate courses if they have successfully completed similar courses in their previous training. The determination of equivalency of graduate level courses taken at other institutions (including courses taken at foreign institutions) will be decided by the Director, who acts upon the recommendation of the faculty member who is the leader of the course for which equivalency and/or academic credit is being sought. The student must present the syllabus and related course information in order for the course leader to determine equivalency. The course leader may recommend transfer credit, in which case the credit is applied toward the PhD degree and this is indicated on the transcript. Alternatively, the course leader may recommend “exemption” in which case the exempted course does not count toward the total number of required courses. Course credit would not be given, usually meaning that a different course will be taken in its place. Course transfer credit or exemption must be approved by the Director of the Graduate Division.

Registration in Courses Offered at Other Institutions. Students who have not been admitted to a thesis laboratory who wish to take courses at other institutions that are not offered at the College of Medicine should present their request to the Director of the Graduate Division. Students who have been admitted to a
thesis laboratory should consult with their mentor and their Advisory Committee (Section 8). In either case, the Advisory Committee must present a written request to the Director of the Graduate Program and certify that the course is directly relevant to the student’s graduate training goals. If a student has been admitted to a thesis laboratory, the mentor must also certify that he/she is aware that the student will be enrolled at a course in another institution. Credit for courses offered at other institutions is granted with the approval of the Director of the Graduate Program. Requests for financial support for tuition at outside institutions will be reviewed by the Director. Approval of requests will be subject to the availability of funds.

Registration for courses outside the College of Medicine is the responsibility of the student in accordance with the procedures of the other institutions. It is also the responsibility of the student to have an academic transcript sent from the other institution directly to the Graduate Office. The course number, title, semester-hour equivalents, and the name of the institution will be entered on the student's Graduate Division transcript subsequent to successful completion of the course.

*Completion of Thesis Research at Another Institution.* Under extraordinary circumstances, it may be necessary for a student to complete the thesis research at another institution. Only students who have passed their departmental Qualifying Examination may request permission of the Director to complete their thesis research at another institution and still obtain their Ph.D. degree from the College of Medicine. The two year residency requirement (preceding page) must in any case be met.

In order to remain in good academic standing, a student who is completing thesis research at another institution must fulfill the following requirements: 1) The student must have fulfilled the residency requirement described above; 2) The student must submit a letter from the Departmental Chair and the Advisory Committee to the Director, granting permission to complete the thesis research off-campus; 3) The student must confer with the Advisory Committee at least once every six months (either on campus or by a telephone conference call) and submit a report of the conference to the Graduate Office.

*Medical Emergencies and Medical Leave of Absence.* Students who experience any medical emergency should immediately seek the care that they require. The Director or the Assistant Director should be notified as soon as is possible once the emergency care has been received. The Director may place a student on a temporary medical leave of absence in cases of illness or other emergencies.

Students registered for graduate courses are responsible for the course work missed. Extended medical leaves of absence over a longer period, generally 6 - 12 months, will be granted only with the approval of the student's Department (if applicable), their Advisory Committee and the Director of the Graduate Division. Students who absent themselves from the Graduate Division without notice may be subject to disciplinary actions, including dismissal from the Graduate Division.

*Withdrawal from the PhD program.* Students in good standing who are unable to return at the beginning of any semester or who find it necessary to discontinue their work for any reason during the academic year,
may be granted withdrawal from the Graduate Division by the Director. Should such students desire to return
to the Graduate Division, they may apply for re-admission in the same manner as other applicants.
Admission to advanced standing may be granted following review by the appropriate departments and the
Academic Affairs Committee.

Visiting Students. Visiting students are students who are matriculated in good standing in a graduate
program at another accredited institution. Individuals who wish to be considered by the Director for visiting
student status must submit an official letter from their home institutions and a letter from their faculty host to
the Assistant Director. This letter must include the time period for which Visiting Student status is requested.
The student and faculty host will receive written notice of the granting of Visiting Student status and the
dates of its commencement and termination.

The Graduate Division makes no financial commitment to visiting students. Faculty hosts will be required
to provide funds for the student’s health insurance if the home institution does not provide appropriate
coverage. Housing in the student residences during the term of visiting student status will be provided
subject to availability. Visiting students are not candidates for a degree in the Graduate Division but can
receive official credit for courses taken. Visiting students wishing to matriculate must apply in the same
manner as other applicants to the Graduate Division.

Limited Visiting Student. In rare cases, a matriculated Sue Golding Graduate Division student may apply
for “limited visiting student” status. This situation might arise, for example, in order to begin a new project
in a different AECOM laboratory prior to successful defense of the thesis. Permission to receive this status
must be requested in a detailed letter to the Director, co-signed by the current mentor and the Chair of the
student’s Department. If approved by the Director, the “limited visiting student” status is valid for a
maximum of three months, during which time the student must defend the thesis. As for all visiting students,
the Graduate Division makes no financial commitment to the “limited visiting student”.

Non-matriculated Students. Non-matriculated students and other individuals who are not candidates for a
degree in the Graduate Division, may wish to receive official credit for courses taken. This group may
include medical students, post-doctoral fellows, physicians in post-doctoral residency training in AECOM
affiliated hospitals, students from other colleges of Yeshiva University and qualified employees of the
College of Medicine. The registration forms of all non-matriculated students must be signed by the course
instructor and the Assistant Director. The student is responsible for supplying documentation that all
prerequisites are met if such documentation is requested by either the instructor or the Director. Successful
completion of a graduate course will be recorded by the Graduate Office.
Section 6
Graduate Course Requirements

*Course Requirements.* All departments require that students successfully complete at least 18 semester hours of courses offered by the Graduate Division. This generally includes but is not limited to 6-7 courses required by specific departments. *In addition,* every first year student must complete successfully the 1 credit course “Responsible Conduct of Research”, offered each Spring. Students who wish to receive credit for graduate courses taken at other institutions, either preceding or during their matriculation in the Graduate Division, must receive the written approval of the Director (Section 5). Departments may require additional courses, some of which may be offered by the medical school. Candidates for the Ph.D. degree must fulfill the academic requirements of their department and, in addition, must have fulfilled the conditions and requirements herein. Students in the MSTP program are required to successfully complete 5 graduate courses as part of the program.

Section 7
Academic Affairs Committee

The Academic Affairs Committee (the Committee) is available to work with Student Advisory and Departmental Committees (and the MSTP Steering Committee for MSTP students) to ensure that students progress in a timely fashion towards their Ph.D. degree. The Committee will ensure that the academic policies of the Graduate Division, and those of the individual departments, are applied in evaluating students' progress.

*Composition of the Committee.* The Committee shall consist of 5 voting members. These five members will be departmental representatives who will serve 3 year terms. Departmental representation will be rotated to ensure equal representation over time. The departments shall select their representatives following their own policies.

The Chair of the Committee will be selected from the five voting members by the Director of the Graduate Division. The Director, Associate Director, Assistant Director of the Graduate Division and the Director of the MSTP Program will be ex-officio, non-voting members of the Committee. Votes will be decided by majority. At least four voting members must be present to constitute a quorum.

The Chair of the Committee, with the approval of the Director, may invite other members of the faculty of the Graduate Division to participate as non-voting members of the committee.

*Charge of the Committee.* The Committee monitors the progress of all graduate students in the program. Course grades and rotation evaluations of each first year student will be reviewed by the Committee at the end of each semester. When a student is accepted into a thesis laboratory, the responsibility for monitoring the student's academic progress passes to the appropriate Departmental Chair. The Committee will however continue to review the academic progress of each student and will inform the Departmental Chair and the
student's mentor of any academic problems. The Committee will retain responsibility for a student who has been placed on Academic Probation.

If a first year student is placed on academic probation, the Committee will send a letter to the student (and the mentor and Chair if applicable) indicating the steps necessary to regain good academic standing. The progress of the student will continue to be monitored by the Committee. For students in the second year and beyond, the Committee will make recommendations and may ask for a specific plan of action from the student, mentor, and Chair. The student’s progress will continue to be monitored by the Committee.

When a student is on Academic Probation, the student, student's mentor and Departmental Chairperson (or designate), may be invited to participate in meetings of the Committee at which the student will be discussed. Decisions made by the Committee concerning students on Academic Probation who have joined a thesis laboratory will be carried out jointly by the appropriate department and the Committee.

The Committee will also intervene in the review of a student’s academic progress in the following circumstances: 1) The invitation of the appropriate Departmental Chair; 2) Problems that arise that are inter-departmental in nature; 3) A student changes his/her thesis laboratory and departmental affiliation subsequent to the first-year of matriculation; and 4) A student is dismissed from a department. When a student is dismissed from a department, primary responsibility for monitoring academic standing will return to the Committee.

A decision made by the Committee in favor of dismissal from the Graduate Division is tendered as a recommendation from the Committee to the Director. The Director alone may dismiss a student from the Graduate Division and shall not alter any decision of the Committee, or reject a recommendation for dismissal, without consulting the Chair of the Committee.

The Committee alone makes recommendations to the Director regarding dismissal of students from the Graduate Program. Department Chairs may dismiss a student from their department based upon departmental rules and regulations, and make recommendations for the Graduate Division regarding the suitability of the student for continued matriculation in the Graduate Division. The Committee considers the recommendation of the department in making its recommendation to the Director regarding the future of a student in the Graduate Division.

A student may appeal a decision of the Director to dismiss him/her to the Dean of the Medical School. A student may be advised by a person from the College of Medicine in the preparation of an appeal. The Dean will consider the appeal and either sustain, modify or reverse the decision of the Director. The Dean's determination of the issues shall be final. Appeals must be communicated, in writing, to the Dean within fifteen days of the date of the communication of the decision of the Director to the student.
Section 8
Student Evaluation and Academic Standards

Students are expected to familiarize themselves and to comply with the rules of conduct, academic regulations and established practices of the Graduate Division and the College of Medicine. The admission of a student, his/her continuation upon the rolls of the College, the receipt of academic credits, graduation, and the conferring of any degree are entirely subject to the disciplinary powers of the Graduate Division and the College and to the student's maintenance of high standards of ethical and scholarly conduct. The Director, on the recommendation of the Academic Affairs Committee (Section 7), may dismiss students who are considered to be unfit for matriculation in the Graduate Division or for infringement of these policies and standards.

In-course Examinations. In-course examinations are a part of the evaluation process for most graduate courses. Unless otherwise declared by the course instructor, students may request a review of their examination answers up to two weeks following return of the examinations to the class.

Students enrolled for credit and attending the entire course, will receive a grade of Honors (H), Pass (P), or Fail (F). When course requirements have not, in the judgment of the instructor, been fulfilled for reasons beyond control of the student, the instructor may assign an Incomplete (I). In this instance, all course requirements must be met no later than the end of the following semester for the student to be given a grade of Honors or Pass. In the event that this requirement is not met, the Incomplete will be converted to a grade of Fail. Instructors or course leaders are to enter a grade on the course card for each student, and to send that card to the Graduate Office within two weeks after the termination of the course.

Failure of a graduate course. No graduate credit is granted for courses with a grade of Fail. Students who fail a course may ask to be re-examined at the discretion of the course leader or repeat the course a single time. When a student successfully completes a course that was retaken, the course entry for the original failure will be expunged from the student's record. If a grade of Fail is not superseded by a grade of Pass, the course may not be used to fulfill departmental or Graduate Division requirements. Course leaders, at their discretion, may limit the grades accessible to students repeating a course to Pass and Fail.

Research Evaluation. Thesis Research and Laboratory Rotation Research grades will be designated as S (Satisfactory) or U (Unsatisfactory). No other grade designations will be entered into the transcript for thesis research. Upon receipt of a grade of Unsatisfactory a student will be asked by the Academic Affairs Committee to meet with his/her Advisory Committee and mentor and then present a plan to the Academic Affairs Committee by which the unacceptable academic performance will be corrected. Students should be aware that grades comprise only a part of the overall evaluation of research performance. Written and verbal evaluations from a student’s mentor and Advisory Committee are also considered.
Academic Standing. A student may be placed on "academic probation" by the Academic Affairs Committee (Section 7) upon receiving a failing grade or upon the failure to complete one or more graduate courses, an unsatisfactory thesis research evaluation or unsatisfactory laboratory rotation. A student may also be placed on probation for participation in actions that are not commensurate with high standards of ethical and scholarly conduct (Sections 11 and 12). First year students are expected to complete at least four graduate courses during their first two semesters unless advised differently by the Director or Associate Director. The Academic Affairs Committee will consider Incompletes and Withdrawals when reviewing a student’s standing. Students on academic probation may enter a thesis laboratory only with the approval of the Academic Affairs Committee in accord with the procedures described in Section 7. Students on academic probation whose performance is not improving may be granted an academic leave of absence or may be dismissed from the Graduate Division. When the student on academic probation has satisfied the written requirements of the Academic Affairs Committee, the student will be considered to have regained “good” academic standing.

Academic Leave of Absence. Upon review of a student’s performance, an academic leave of absence may be granted by the Director for a period of 3-12 months. If the student wishes to return (re-matriculate) from the academic leave of absence, approval must be obtained from the Academic Affairs Committee and the Director, following complete review of the student’s academic record and a plan for improvement. If the student does not re-matriculate when the leave of absence expires, then the student will be dismissed from the Graduate Division. Due to SEVIS federal regulations, a student on either an F1 or J1 visa is not eligible for an academic leave of absence.

Dismissal. Grounds for considering dismissal from the Graduate Division include: 1) failure of one or more graduate courses; 2) failure of a required departmental course, subject to the recommendation of the appropriate Departmental Chair; 3) failure of the Qualifying Examination; 4) an unsatisfactory grade in thesis research or laboratory research rotation; 5) failure of a Thesis Defense Examination; 6) failure to re-matriculate following expiration of a leave of absence; or 7) participation in actions that are not commensurate with high standards of ethical or professional scholarly conduct (Sections 12 and 13). However, it is stressed that the Academic Affairs Committee will consider all aspects of a student’s performance in evaluating his/her continued matriculation in the Graduate Division.

Auditing a Course. Qualified students may audit a course with the permission of the instructor or course leader. However, no record of the audit will appear on a student's transcript.

Tutoring. The Graduate Division provides tutoring to students with insufficient preparation in specific areas of science or to students who are having difficulty with specific courses. Students who receive tutoring should attend all scheduled review sessions for the course in which they are being tutored. Failure to take advantage of the scheduled review sessions could result in the loss of the privilege of being tutored.
Section 9
Laboratory Rotations

All graduate students participate in one or more laboratory rotations. Students entering the graduate program by the "rotational pathway" (Section 2) participate in a series of rotations in basic science research laboratories. These rotations are intended to provide the students with the experience necessary to make an informed choice of the laboratory in which they wish to conduct their thesis research. A typical schedule for a first year student is two or three graduate courses in each of the first two semesters and up to three laboratory rotations during the first year. The dates that the rotations commence and terminate are published in the Academic Calendar of the Graduate Division. Students are expected to participate fully in the research activities of the laboratories in which they rotate and to seriously apply themselves to their laboratory work. However, it is essential that students learn to appropriately balance their time commitments between their course and laboratory work.

Students entering the graduate program will have the opportunity to familiarize themselves with the research opportunities available in the Graduate Division during the orientation program for incoming students organized by the Graduate Office. Students are required to attend all aspects of the orientation program. A student may request of a faculty member entry into their laboratory for a rotation. At the end of the rotation period, faculty mentors will submit a written evaluation of a student's rotation to the Graduate Office for distribution to the Academic Affairs Committee. Under exceptional circumstances the requirement for laboratory rotations may be waived with the approval of the Director.

Students entering the graduate program by the “direct pathway” are required to participate in at least one rotation in a laboratory other than the chosen thesis laboratory. This rotation is considered an important educational experience and will familiarize the student with the breadth of research at the College. The rotation can be performed in any laboratory in any of the basic science Departments of the Graduate Division, either in the second or third rotation period. The laboratory will be chosen in consultation with the thesis advisor, and will often allow specialized relevant training outside of the thesis laboratory. The student stipend during the rotation period is currently provided by the College at the discretion of the Dean.

Research laboratories may have only one first year rotational pathway student for any given rotation period, unless approved by the Director. Students may not conduct two rotations in the same laboratory. Students are expected to complete at least two rotations before entering a thesis laboratory, although a thesis laboratory may be entered at any time with the approval of the Director.
Section 10

Declaration of the Thesis Laboratory

Students are expected to request entry into a thesis laboratory at the end of the spring semester of their first year. Under exceptional circumstances, and with the permission of the Director, students may rotate in an additional laboratory prior to entering a thesis laboratory. In any event, students must enter a laboratory prior to the beginning of their second year. Students on academic probation (Section 8) may be prohibited from participating in laboratory rotations by the Academic Affairs Committee.

A student and his/her mentor must inform the appropriate Departmental Chair and the Director of the Graduate Division, in writing, of the student’s acceptance into a thesis laboratory, using the Laboratory Declaration Form. Students who have entered a thesis laboratory become the primary responsibility of the department in which the student will conduct his/her thesis research (see Section 7). The thesis advisor must hold an appointment in one of the basic science departments.

If the mentor has both primary and secondary appointments in basic science departments, the student is expected to enter the department of the primary appointment, but may choose to enter the department of secondary appointment due to the nature of the thesis topic upon recommendation of the mentor, and approval of the Director.

The only condition under which a student may be permitted to conduct their thesis research with a faculty member without a basic science appointment is if there is a pre-existing scientific collaboration with a faculty member of one of the basic science departments of the Graduate Division. Acceptable documentation is the publication of jointly authored, peer-reviewed articles by the two faculty members. Once the student is in the laboratory of the collaborating faculty member, there must be continuing documentation that the co-sponsor is involved in the student's training. At a minimum, this documentation would be in the form of Student Advisory Committee meeting reports indicating the presence of the both faculty members.

Section 11

Student Advisory Committee.

The Student Advisory Committee consists of several (typically 3-5) faculty members. The Committee members usually are faculty of the Graduate Division, but in some cases may be from other Departments or even Institutions. The Committee plays an important role in guiding the student through his/her academic program and will meet at least once each year, and as frequently as needed by the student to obtain direction. The purpose of the advisory committee is to make recommendations for course work, to provide critical
feedback on the research plan, and to advise the student whether s/he is ready to take the qualifying examination or write/defend the thesis dissertation. The committee is charged to aid the student in moving efficiently towards the PhD degree, while at the same time maximizing the significance and impact of the thesis research. Although each department may set additional meeting requirements or schedules, the Graduate Division requires at least one completed meeting form submitted each year prior to registration in the Fall. Students who have not had an advisory committee meeting in the previous academic year will not be allowed to register in the Fall.

The composition of the Student Advisory Committee is meant to be dynamic and may go through several changes during the time a student progresses to the dissertation. Immediately following matriculation, all first year students will be advised by the Associate Director and Director. When a student declares a thesis laboratory, the Advisory Committee is formed in consultation with the mentor, and in accord with appropriate departmental policies. The Advisory Committee will recommend courses, review academic progress, advise on the research plan and monitor progress of the thesis research. Students must consult with their Advisory Committee either upon withdrawing from or receiving a failing grade in any graduate course. The purpose of this meeting will be to discuss the nature of the academic problem and develop a plan for its resolution. Reports of Advisory Committee meetings are to be sent to the Department Chair (or designate) and the Academic Affairs Committee (via the Graduate Office), at least once every academic year. If the student is currently supported by a training grant, an additional copy of the report must go to the training grant director. The Advisory Committee meeting report form is available on the Graduate Division web-site or from departmental administrators.

Departmental responsibilities include the immediate formation of a Student Advisory Committee in the student's area of interest, and monitoring of the Advisory Committee meetings. In addition, the Department will administer the Ph.D. qualifying examination and thesis defense examinations. The thesis advisor is the chair of the permanent advisory committee. The composition of the advisory committee should be submitted, in writing, to the Graduate Division within one month of the student's acceptance into a laboratory. The student is required to meet with this committee at least once in the next year, in order to register for the following fall semester. Students who entered the Graduate Division and Department by the “Direct Pathway” should also form an advisory committee at or prior to the end of the first year. The student in consultation with the mentor may change the composition of the advisory committee at any time. The Graduate Office should be informed of the change.
Section 12
Change of Laboratory, or Dismissal from a Department for Non-Academic Reasons

In the case that either a mentor seeks to dismiss a student, or a student seeks to change laboratories within the Graduate Division, the student or mentor seeking a change in status must contact the Chair of the Departmental Graduate Oversight Committee (GOC). Each department will maintain a GOC. It is up to each department to decide the composition of the GOC, for example including only the Departmental Chair, or a sub-committee of the existing Departmental Graduate Committee, or 3-4 faculty members and one or more senior students. The GOC should have a designated Chair, who acts in confidence and will indicate to the Director that there is a potential for change in status. The Chair will confirm that both the student and mentor are aware of pending action.

The chair will arrange for the GOC to meet with the student and mentor to help determine potential solutions to the conflict (for example, specific expectations on both sides that must be attained) and a timetable for any trial period (recommended 1-3 months) during which time the situation can be monitored by the GOC. A written description of the details of the trial period, signed by both mentor and student, must be submitted to the Director, prior to the start of the trial period.

At the end of the trial period, the student and PI will meet with the GOC to report on the success or failure of the trial. The Chair will provide a written recommendation to the Director indicating if a change in laboratory or dismissal from the Department is warranted. In the case of a dismissal, the student may appeal to the Director for a short academic leave of absence. If approved, the student on this academic leave of absence will be allowed up to 3 months to identify another Department for transfer.

Section 13
Official Transcript

Course and grade records will be maintained for every student in the form of a permanent transcript in accord with the policies described in Section 8. The College has formulated its Student Record Policy to guarantee the rights of privacy and access as provided by the Family Education Rights and Privacy Act of 1974. This policy is consistent with policies of Yeshiva University and applies to all students. Copies of the Student Record Policy are available in the Graduate Office. Students who wish to review their records may do so on written request to the Assistant Director (the Registrar, Section 2) of the Graduate Division. Requests for transcripts must be submitted in writing to the Assistant Director of the Graduate Division.
Section 14
Policy on Scientific Conduct

The College of Medicine expects that all members of the academic community will display the highest personal integrity and conduct themselves according to accepted ethical standards in every aspect of their professional lives. Dishonesty in the academic arena can neither be accepted or ignored by students and faculty of the College and it is their joint responsibility to see that high standards of conduct are upheld.

The following definition of "misconduct in science" from the College's Policy on Scientific Misconduct,

"Scientific misconduct includes fabrication, falsification, plagiarism or other practices that seriously deviate from those commonly accepted within the scientific community for proposing, conducting or reporting research. It does not include honest differences in interpretation or judgments of data."

will be used to evaluate whether a student's research activities constitute scientific misconduct. Instances of suspected scientific misconduct involving laboratory research by students will be considered in accord with the Policy on Scientific Misconduct of the Albert Einstein College of Medicine (see Appendix IV).

Instances of professional misconduct by students that do not fall within the guidelines of scientific misconduct will be considered in accord with the Policy on Professional Conduct presented in Section 12. The Director will have primary responsibility for determining the appropriate venue for investigation of alleged misconduct, and seeing that the allegations are thoroughly and fairly investigated.

Section 15
Policy on Professional Conduct

The Graduate Division requires at all times the highest standards of professional conduct. Professional misconduct includes, but is not limited to, plagiarism or cheating in academic courses offered by the Graduate Division and by the Medical School, fabrication or falsification of academic work or data, intentionally damaging or interfering in the academic activities of other members of the College of Medicine, or assisting others in any of these acts and the failure to meet generally accepted standards of personal integrity and professional conduct. Inappropriate or disruptive behavior toward colleagues, faculty, or other College staff may constitute professional misconduct.

A student who is unsure of whether their actions, or those of others, constitute professional misconduct should consult with their mentor, Departmental Chair, the Director of the Medical Scientist Training Program or the Director of the Graduate Division. Ignorance of the standards of professional conduct will not exonerate a student from responsibility for their actions. Plagiarism or cheating will normally result in dismissal from the Graduate Division. References are available in the Graduate Office and in the library to help students evaluate the ethical implications of their actions.
In cases of plagiarism or cheating in academic courses the course leader may be able to resolve an incident. The course leader should provide the Director with a complete report of the incident and its resolution. Incidents of professional misconduct that do not involve academic courses may be resolved by a student's mentor, appropriate departmental committee or Departmental Chairperson. A complete report of the incident and its resolution should be provided to the Director by the appropriate Departmental Chairperson.

Either the student(s) or faculty involved in the incident or allegation may request a review by the Academic Affairs Committee (Section 7) in accordance with the procedure described below.

1. Allegations of professional misconduct are to be submitted in writing to the Director of the Graduate Division and must be sufficiently specific to provide a factual basis for investigation. Anonymous allegations are not acceptable.

2. A preliminary evaluation of an allegation will be made by the Director in consultation with the Associate Director of the Graduate Division and the Chairperson of the Academic Affairs Committee to determine whether the allegation falls within the purview of this policy and is sufficiently substantive to warrant investigation.

3. If it is determined that a review by the Academic Affairs Committee will proceed, the student will be promptly notified in writing by the Director of the nature and details of the allegation. The student will be advised of the procedures set forth herein and of the right to the advice of an advocate from the College of Medicine.

4. The review of the allegations of professional misconduct will be promptly conducted. The Director may appoint an ad hoc subcommittee, that will report to the Academic Affairs Committee, consisting of three members of the faculty of the Albert Einstein College of Medicine to evaluate the allegation. Members of the Academic Affairs Committee for whom there exists, or is perceived to exist, a conflict of interest will be excused from the review. The ad hoc subcommittee shall not include any member of the faculty where any conflict of interest exists or is perceived to exist.

5. The Academic Affairs Committee (or the ad hoc subcommittee) will attempt to obtain written and oral evidence from all sources it determines to be appropriate that it requires to evaluate the alleged misconduct. The review is not bound by the formal rules of evidence. The accused student may examine all the evidence against him/her and respond to the evidence. The student may present the facts of his/her case, provide witnesses to testify on his or her behalf, may be advised by a person from the College of Medicine, but may not have an attorney present at the review.

6. After reviewing the evidence the Academic Affairs Committee will provide a recommendation to the Director who will decide the matter in accord with the procedures described in Section 7 and prepare a written decision. A copy of the decision will be given to the student.
7. An appeal of the decision of the Director may be made to the Dean of the Medical School as described in Section 7.

Section 16

The Qualifying Examination and Awarding of the Masters Degree

Each candidate for the Ph.D. degree must satisfactorily complete a qualifying examination in the department in which he/she is registered. The purpose of the qualifying examination is to ensure that the student has a sufficient background of knowledge to pursue the Ph.D. degree. The individual departments will specify the graduate courses that must be successfully completed prior to their students being allowed to take the qualifying examination. Depending upon a student’s preparation, the examination is usually taken during the second year of study. If a student has not successfully completed their qualifying examination by the end of their third year, they must meet with their Advisory Committee and present to the Academic Affairs Committee a plan for the timely completion of this requirement in order to remain in good academic standing.

During preparation for the qualifying exam, individual faculty may play a minor role as outside consultants. They should avoid reading the proposal, as this is meant to be the independent work of the student. Mentors should avoid most discussion, but may answer specific questions raised by the student. However, another faculty member (or member of the AECOM community) may provide answers to specific questions, refer students to references in the literature, and provide feedback of feasibility or significance for specific ideas raised by the student. Such individuals may function as “sounding boards” for student ideas. Primarily, the qualifying exam must reflect the independent ideas and knowledge of the student.

The conduct and nature of the qualifying examination is the responsibility of the department in which the student is conducting his/her thesis research, subject to the general guidelines set by the Graduate Committee, as described below:

1) The Examining Committee must consist of no fewer than four faculty members from among the basic sciences departments. At least one member of the Committee must be from the student’s home department; one other department must be represented in addition to the home department. One member of the Committee must be either a present or former (within three years) representative to the Graduate Committee or a member of a committee charged with administering the Qualifying Examination for a department.

2) Each department will provide the Graduate Committee with a description of the format for their examination and notify the Committee of any changes in format. This information should be submitted to the Committee two months prior to examinations to which the changes apply. The department will publish its procedure in its policy.
3) The format of the examination must include either a closed-book, written examination and/or an oral examination conducted by all members of the Examining Committee. The participation of the thesis advisor in the examination process is at the discretion of the department. The Examining Committee should meet briefly before the examination without the student present in order to review the student’s academic record and to discuss any strengths or weaknesses that should be explored during the examination. The committee should meet after the examination without the student present to discuss the student's performance.

4) Students may receive a grade of 'Honors', 'Pass', 'Conditional Pass' or 'Fail' for the examination by majority vote of the committee. A grade of 'Conditional Pass' will require the student to complete additional work set forth by the committee. Students are to be informed of their grade immediately following the examination.

A report on the examination will be prepared by the Examining Committee and provide an evaluation of the strengths and weaknesses of the student, as well as any additional work that may be required. When the examination is complete, the chair of the Examining Committee should return the completed report to the Graduate Office. The report of the Committee will contain any recommendations for rectifying deficiencies if a grade of 'Conditional Pass' has been given. Unless specified otherwise by the Examining Committee, all deficiencies must be corrected within a period of three months of the date of the examination. If the deficiencies are not corrected to the satisfaction of the Examining Committee, the grade of 'Conditional Pass' will be changed to 'Fail'. The Graduate Office will forward a copy of the examination report to the appropriate Departmental Chair and to the mentor.

5) Following successful completion of the qualifying examination, the appropriate Departmental Chair should send a letter to the Director recommending the awarding of the Master of Science degree. Upon the receipt of the letter from the Departmental Chair, the student and their mentor will be notified in writing of the award of the Masters of Science degree by the Director of the Graduate Division. The successful completion of the examination (pass or pass with distinction) will be noted on the transcript, and the grade of “pass with distinction” will be noted on the masters diploma.

6) In the event that a student fails the qualifying examination, s/he may re-take the examination one additional time solely at the discretion of the department. Failure of the qualifying examination is sufficient grounds for dismissal from a department and, following review by the Academic Affairs Committee, may result in dismissal from the Graduate Program (Sections 7 and 8). Students in good academic standing who have passed or failed their qualifying examination are eligible to receive a terminal Masters of Science degree on the recommendation of the appropriate Departmental Chairperson and with the approval of the Academic Affairs Committee of the Graduate Division.
Section 17
The Thesis Dissertation

The graduate thesis, or dissertation, is the all-encompassing document describing original research carried out by the graduate student in the laboratory. In general, the research has been structured to answer a question or group of questions, or to explore particular hypotheses, and has resulted in a body of novel data. The historical background, the scientific context of the experiments, and the data are presented and discussed extensively in the dissertation. It is expected that the research carried out to generate the thesis dissertation will also result in published papers in recognized scientific journals, for which the student is the first author. The Graduate Division does not set a requirement for a specific number of published manuscripts, and some of this work may be published following the thesis defense. However, it is not unusual for the thesis dissertation research to comprise 2-3 publications in which the student is the leading author. All collaborative work that contributes to the Thesis Dissertation must be clearly indicated in the text.

Section 18

The Thesis Defense Committee

Composition of the Thesis Defense Committee. Every candidate for the Ph.D. Degree must submit a dissertation and pass an oral examination of their thesis (Thesis Defense) by a Thesis Defense Committee (Committee) that consists of a minimum of five members chosen by the student and their mentor. The Thesis Defense Committee must include at least four faculty members from the departments that comprise the Graduate Division, one of whom must be a present or past (within three years) representative of the Graduate Committee and two of whom must be members of the student's department. The student’s mentor cannot serve on the Committee although the mentor is present at the Thesis Defense. Inclusion of an examiner from outside the institution with expertise in the area of the student's research is desirable although the fifth member of the committee may be an additional member of the basic science faculty. Students are encouraged to designate a sixth faculty member as an alternate in the event that an examiner can not attend the Thesis Defense. The name of any member who served as co-mentor or collaborator with the student must be indicated by asterisk on the submitted Committee Form (see below).

Approval of the Thesis Defense Committee. The Director of the Graduate Division and the Graduate Committee must approve all Thesis Defense Committees, according to the designated criteria established by the Graduate Committee. At least two months prior to the scheduled defense date, a completed Thesis Defense Committee form must be submitted to the Graduate Office. This form states the title of the dissertation, the members of the Thesis Defense Committee, the date at which the required public seminar will be held (see below), the signatures of the appropriate Departmental Chairperson (or their designate) and the mentor, the abstract of the dissertation and a list of publications. A draft copy of the thesis defense seminar
announcement must accompany this form. The Director will not consider Defense Committees from students whose course work or qualifying examinations are incomplete. Once the Thesis Defense Committee has been approved by the Graduate Committee, the Thesis Defense Committee has full authority to recommend the award of the Ph.D. degree to the Director of the Graduate Division.

All changes in Committees that have been reviewed and approved by the Graduate Committee must be approved by the Director of the Graduate Division. In the event that changes in the Committee must be made, and the Director is not available for consultation, the approval of the appropriate Departmental Chair should accompany the final report of the Committee.

Section 19

Form and Style of the Dissertation

Inclusion of published work in the dissertation. Students are encouraged to submit their dissertation studies for publication in peer-reviewed journals during the course of their studies. In order to fulfill copyright obligations, papers published by graduate students before the Thesis Defense, that are intended to be included in the dissertation, should carry the footnote

"Data in this paper are from a thesis to be submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in the Graduate Division of Medical Sciences, Albert Einstein College of Medicine, Yeshiva University."

Instructions for preparing the dissertation. Two dissertation formats are generally accepted by the departments within the Graduate Division. Students must consult with the appropriate faculty in their department to insure that their dissertation format is acceptable by their department. ‘Format A’ is the traditional organization of a dissertation. ‘Format B’ is organized with each chapter corresponding to a published (or in preparation) journal article. However, it is emphasized that a collection of published papers cannot be submitted in place of a dissertation. An improperly prepared dissertation may be returned to the student by the Committee without review.

The following general instructions apply to both dissertation formats.

i) Manual of Style: On points of style (including capitalization and punctuation) not covered by the above, follow the recommendations of your department. The style selected should be adhered to strictly and consistently. If no style is preferred by the department, the Manual for Writers of Dissertations by Kate L. Turabian, University of Chicago Press, should be used.

ii) Line spacing: The text of the dissertation is to be double-spaced except for indented quotations, footnotes, figures, legends and bibliography, which are to be single-spaced.
iii) **Paper:** The final copies of the dissertation are to be printed on 8 1/2" x 11" bond paper that is not punched or perforated in any way. Copies of the draft of the dissertation that are submitted to the Committee prior to the Thesis Defense may be duplicated on standard photocopy paper and may secured using either a three-hole binder or a spring binder.

iv) **Pagination:** Every paper in a thesis is assigned a number typed on it. There are two series of page numbers. The first, in small Roman numerals, begins with the title page and ends with the last page preceding Chapter I. The second series, in Arabic numerals, begins with the first page of Chapter I and continues throughout the dissertation, including graphs, illustrations, tables, bibliography and appendices.

v) **Margins:** The margins at the top, bottom and right are to be 1.0 inch; the left-hand margin is to be 1.5 inches. All tables, charts and illustrations are to have left-hand margins of no less than 1.5 inches because of binding requirements. Any over-size material may be folded in from the right, top and bottom in such a way as to leave a 1.5 inch margin on the left side.

vi) **Spelling:** The spelling given in any standard dictionary may be used. However, whatever forms are adopted should be adhered to consistently throughout the text of the dissertation.

vii) **Quotations:** Quotations of more than three lines should be single-spaced, set off from the text in a separate paragraph and indented four spaces, with double-spacing between paragraphs. Opening and closing quotation marks are omitted. Quotations of three lines or less are enclosed in quotation marks and are run into the text.

viii) **Tables, Figures, Reproduction:** The recommendations of the style manual are to be followed in preparing tables, figures and other graphic materials. Tape may not be used for mounting; when mounting reproductions, use a high quality glue that will not yellow or wrinkle the page. Photographic paper, dye-sublimation printer output, laser printer output, some thermal and ink-jet printers, Photostat and photo-offset are acceptable methods of reproducing illustrations and graphs. Reproduction processes that lack permanence are not acceptable.

Tables are numbered consecutively throughout the thesis. The word TABLE, followed by the appropriate Arabic numeral, is placed above the caption; the table caption is also written in full capital letters. Figures are numbered consecutively in Arabic numerals, with the word "Figure" (only the first letter is capitalized) and the appropriate numeral appearing before the caption. Figures should be oriented in the “portrait” configuration. Figure legends should appear on the page facing the Figure. Alternatively, if it fits without crowding on the same page, the legend may be printed beneath the Figure.

ix) **References and Footnotes:** References to published articles should be cited by author and year (i.e. Student and Mentor, 1995 or Student et al., 1995). Footnotes are to be placed at the foot of the page and numbered consecutively for each chapter. Every reference listed must appear in the bibliography (see below).
The following sections of the dissertation are common to both formats.

i) **Title Page:** The title page is to list at the top the title of the dissertation, your full name and signature, the full name and title of your major advisor and, at the bottom, the statement: "Submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in the Graduate Division of Medical Sciences, Albert Einstein College of Medicine, Yeshiva University, New York, (month and year)." The title of the dissertation must not exceed 72 letters and spaces.

A sample page is shown at the end of this section that illustrates the capitalization and format. The date given is not when the dissertation is submitted, but when the degree is expected to be granted (January, June or September of the appropriate year. See Section I).

ii) **Abstract:** The abstract of the dissertation is to include: a hypothesis, the procedures followed, the significant results and the general conclusions. The abstract is to be presented on a separate page headed with the word ABSTRACT in capital letters centered on the page. On the next line is the title of the dissertation. The following line is the full name of the student. The length of the abstract must not exceed 600 words. (Please note the separate instructions for the 350 word microfilm copy abstract described in the first section of this manual.)

iii) **Acknowledgments:** This feature is not required, but offers a convenient opportunity to express the writer's appreciation to persons who have been especially helpful, or to the publishers of materials from which data have been drawn and to whom acknowledgment should be given. The appropriate training or research grants should also be acknowledged in the dissertation.

iv) **Table of Contents:** The table of contents should list the chapters or other division headings of the dissertation, using the same words that appear in the body of the report. The numbers of the pages on which these items appear should also be given. The table of contents is to be followed by separate page listings for tables and for figures and illustrations.

v) **Introduction:** The dissertation begins with a scholarly introduction (Chapter I). This section should include a historical review of the student’s area of research followed by a critical evaluation of the current status of the field. The student should then present working hypotheses and give an introduction to the system and the thesis research. The student should consult with his or her mentor in order to agree upon how extensive a historical review is appropriate to the dissertation.

vi) **Conclusions:** A dissertation should end with a general discussion of the studies that have been conducted including an assessment of the significance of the research, arguments of interpretation, evaluation of material included in appendices, and a plan for the experimental resolution of unanswered questions.
vii) **Bibliography:** The format for the references included in the bibliography should follow that in the suggested manual of style or a highly respected scientific journal. At a minimum, each reference must include the names of *all* authors, the title of the article, the name of the journal, volume number and pages of the article. The inclusion of titles is strongly recommended. The bibliographies of the dissertation may be compiled for each chapter separately, or together at the end of the dissertation, at the discretion of the mentor and the student.

The generally accepted thesis formats (Formats A and B) are described below. The format chosen must be maintained throughout the dissertation. Students *must* discuss with their mentor and departmental representatives the dissertation format acceptable to their department.

**FORMAT A**

i) **Methods and Materials:** The protocols and procedures used in the dissertation studies should be presented in sufficient detail to allow reproduction of the experiments (Chapter II). A dissertation provides an appropriate vehicle for experimental details that might be omitted from journal articles due to space limitations.

ii) **Results and Discussions:** Chapters III ... n of the dissertation should present the results of the conducted studies followed by a discussion of their significance. The format for these chapters should follow that in the suggested manual of style or of a highly respected scientific journal, mutually agreed upon by the student and the mentor.

**FORMAT B**

i) **Manuscripts:** The body of the thesis should be in the form of manuscripts that have been or are ready to be submitted for publication in a scholarly journal. *Note that the format and style requirements described above must be adhered to for each and every chapter of the dissertation.* Each manuscript will constitute a chapter and will include a brief Introduction, Methods and Materials, Results and a Discussion. *The candidate must be the first author of these manuscripts and must be responsible for their preparation.* A footnote to the introduction should give bibliographic information for manuscript constituting the chapter. This information should include the full names of the authors, the journal and the status of the manuscript (*i.e.*, submitted, published or in press)

One of several options may be appropriate in cases where the student is not first author of a manuscript that is to be presented in the dissertation as a chapter: 1) The student may extract their work from the manuscript for presentation in the dissertation; 2) The manuscript may be included as an appendix to the dissertation; 3) The manuscript may be included as a chapter if the student was responsible for the preparation of a significant portion of the manuscript upon
receipt of the written permission of the appropriate Departmental Chairperson (or their designate). For all multi-authored manuscripts, the exact contribution of the student should be stated in a footnote preceding each chapter or appendix. The contributions of co-authors must also be specified in the acknowledgment section.

ii) **Supplementary Materials and Methods:** It may be appropriate for a more extensive presentation of Materials and Methods to be given in an appendix where it may be helpful to other investigators who wish to utilize procedures developed by the candidate. The candidate may also wish to include as appendix material more detailed presentations of data than appropriate for a scholarly journal. This material would be available through the College library or University Microfilms.
AN EVOLUTIONARY VIEW OF THE MYC NETWORK IN GROWTH CONTROL AND DIFFERENTIATION

by

Nicole Schreiber Agus

Candidate: 

Thesis Advisor:

__________________________

Signature

Nicole Schreiber Agus

Name

Ronald A. DePinho, M.D.

Name

Associate Professor of
Microbiology and Immunology
Title

Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Graduate Division of Medical Sciences

Albert Einstein College of Medicine
Yeshiva University
New York
June, 1994
Section 20
Submission of the Thesis

Presentation of the thesis to the Committee.. The thesis must be presented to all members of the Thesis Defense Committee at least three weeks before the scheduled defense. A member of the thesis committee may require a postponement of the Thesis Defense if this requirement is not met. However, this requirement may be waived upon the consent of all of the members of the Committee. A Committee member may request a pre-defense meeting of the Committee if, in the opinion of the Committee member, the dissertation is not defensible. All expenses related to the defense and the thesis are the responsibility of the student's department.

Presentation of a public seminar. The presentation of a public seminar at the College of Medicine is required for successful completion of the Ph.D. degree. Acceptable venues include Departmental Seminars, and the annual Student Symposium. Presentations made at other forums do not fulfill this requirement. This seminar should be presented within three months of the date of the examination. This seminar also fulfills a New York State requirement that a Ph.D. candidate demonstrate his/her ability to present scientific material in public. A copy of the announcement of the seminar must be forwarded to the Graduate Office for inclusion in the student's file. An announcement of the time, place and subject of the public seminar should be widely disseminated at the College of Medicine, and a draft copy of this announcement should be included with the Thesis Defense Committee form submitted to the Graduate Office.

Section 21
Conduct of the Thesis Defense.

The purpose of the thesis defense is to demonstrate in an oral form the knowledge and skills acquired to carry out research that provides new information on a significant problem. The following are recommended guidelines for conducting the thesis defense:

1. The thesis seminar, whenever possible, should immediately precede the thesis defense.

2. The Chair of the Defense Committee is a current or recent (within three years) member of the Graduate Committee. At this member’s discretion, a different Chair may be chosen to run the defense, with the original Chair remaining as an examiner. The Chair should ensure that the Thesis Defense Form has been brought to the defense. This form is normally sent to the Chair, along with a copy of these Guidelines. The Chair will identify to the group any members of the Defense Committee who have acted as co-mentors or collaborators during the course of the student’s research.
3. At the commencement of the defense, the student should be excused and the Chair (and/or mentor) will then provide a profile of the student’s background, course work taken, and publication record.

4. The Chair, in consultation with the examiners, will then determine how the thesis defense will be conducted. One of two formats is generally followed:
   a. Examiners will be allowed a ~10 min question period in turn, with the opportunity to have a second round of questioning.
   b. Questions will be permitted to follow logically from the initial set of questions, with examiners sharing the examination period.

5. If any of the examiners expresses a serious concern with the content of the thesis, a strategy should be developed whereby the questioning can address these concerns in a constructive manner.

6. If an external examiner has been invited to participate in the thesis defense, it is recommended that this examiner be invited to commence the questioning period.

7. The student will then be asked to return and the exam can commence. If a thesis seminar was not given immediately prior to the defense, the student should give a short (~10 minutes) synopsis of the major findings of his/her research.

8. The mentor may be present during the defense but cannot ask questions and is not expected to answer any questions for the student unless clarification is asked for from the examiners. The Thesis Defense Committee vote is confidential and the mentor should leave the room together with the student during the voting procedure.

9. It is inappropriate for food or beverages to be provided by the student during the defense, although the Department may offer lunch if timing requires it.

10. The Chair should ensure that the defense is conducted in a professional manner, and that each examiner has the opportunity to ask questions. The Chair should also ensure that the length of the exam is appropriate and does not proceed to exhaustion. A typical exam period is 1 to 2 hours.

11. The defense is discussed, and a decision is made. If the vote is for “minor revision” then the mentor is usually given the responsibility of checking the final document. If the vote is for “major revision”, a member of the committee is usually assigned to review and accept the corrections on behalf of the parent committee.

**Evaluation of the Dissertation and the Thesis Defense.** A Thesis Defense form is available in the Graduate Office (Appendix VIII). When the examination is complete, the Chair of the Thesis Defense Committee should return the completed form immediately to the Graduate Office for the Director of the Graduate Division who will provide a copy to the appropriate Departmental Chairperson. Students may receive a grade of 'Pass', 'Conditional Pass' or 'Fail' for the examination by majority vote of the committee. A
grade of 'Conditional Pass' will require the student to complete additional work set forth by the Committee. The report of the Committee will contain any recommendations for rectifying deficiencies if a grade of 'Conditional Pass' has been given. Unless specified otherwise by the Committee, all deficiencies must be corrected within a period of three months of the date of the examination. If the deficiencies are not corrected to the satisfaction of the Committee (or the designated sub-committee), the grade of 'Conditional Pass' will be changed to 'Fail'. Re-examination following a failed thesis defense is at the discretion of the appropriate department.

More paperwork. Following successful completion of the Thesis Defense the student and their mentor will be notified in writing of the award of the Ph.D. degree by the Director of the Graduate Division.

No diploma will be granted until six copies of the thesis, printed on bond paper, in final form, (including the signatures of the candidate and his/her major advisor on the title page), as well as authorization for funds to cover microfilming and binding of the thesis, are submitted by the student’s home department. Copies of the thesis must be distributed as follows: a bound copy to the student's advisor; a bound copy to the student's home department; a bound copy to the student; an unbound copy to the Graduate Office for microfilming (This copy will be returned to the student after microfilming.); a bound copy for the Graduate Office; and a bound copy for the Samuel Gottesman library. In addition to the completed thesis, the following documents are to be submitted to the Graduate Office:

1) The Ph.D. diploma form indicating your full name as you wish it to appear on final document.

2) Two copies of a 350-word dissertation abstract are required for the microfilming copy. This reduction in length will allow University Microfilms International to provide an on-line, computerized version for Dissertation Abstracts International. (The following method for counting to remain within the 350 word limit may be helpful - maximum 2,450 typewritten characters for the abstract, averaging 70 characters per line with a maximum of 35 lines.).

3) A signed and completed University Microfilms International Agreement form. This agreement provides for copyrighting of the thesis.

4) A signed and completed Survey of Earned Doctorates form.

5) Written permission from the copyright holders if copyright material by the student (e.g., publications) or other authors, (e.g., tables, charts, pictures, etc.) are included in the dissertation. All thesis requirements must be fulfilled before a candidate can be recommended for a Ph.D. Degree.

6) An internal data sheet providing a forwarding address and a description of the student’s next professional position.
Certification of receipt of the Ph.D. degree may be made by the Director of the Graduate Division at any time during the year and formal award of the degree will then be made at the subsequent regular commencement exercises of the College of Medicine. The degree granting dates are the last days of September and January and the date of the Commencement exercises conducted at the beginning of June. All financial obligations to the College of Medicine must be met prior to the release of the diploma.

*Participation in the June Commencement Ceremony.* In order to participate in the Commencement Ceremony, all academic requirements must be fulfilled and communicated to the Director on or before April 30. This includes completion of all coursework and other departmental requirements, successful defense of the thesis (conditional pass is not sufficient), completion of all revisions, and deposition of 6 copies of the thesis in the Graduate Office. There will be no exceptions to this deadline.
Appendix 1. Specific Departmental Requirements.

Here are listed specific departmental requirements that are not covered in the main body of the Graduate Division “Academic Policies and Guidelines” handbook. Most notably, individual departments may have specific requirements for number and type of courses, qualifying exam, and other departmental activities such as journal clubs, advisory committee meetings, and composition of the thesis and the thesis defense committee. Additional departmental information may be obtained directly by contacting the relevant Graduate Committee representative. Please note that the requirement for all first year students to take the course “Responsible Conduct of Research” is in addition to any departmental course requirements (ie it does not count towards one of the electives).

I. Department of Anatomy & Structural Biology
II. Department of Biochemistry
III. Department of Cell Biology
IV. Department of Developmental & Molecular Biology
V. Department of Microbiology & Immunology
VI. Department of Molecular Genetics
VII. Department of Molecular Pharmacology
VIII. Department of Neuroscience
IX. Department of Pathology
X. Department of Physiology & Biophysics
I. Anatomy and Structural Biology

A Courses

The Department requires that students take Biochemistry, Molecular Cell Biology, and 4 electives chosen in consultation with the student’s advisor and advisory committee. Students are expected to participate in the ongoing Departmental Seminars, retreats and laboratory forums. The Department encourages students to choose Histology as one of the electives (either in the summer MSTP course or in the fall). Students who have passed Histology can then acquire teaching experience by teaching the course as a laboratory instructor. A supplementary stipend is provided for teaching the course. Graduate students are expected to pass all coursework before proceeding to the qualifying examination.

B Advisory Committee

The role of the Advisory committee is to help in the choice of courses to be taken and to oversee that academic and research progress is satisfactory. The Advisory Committee consists of four to five faculty members, at least one from within the department (primary or secondary) in addition to the mentor and the other members from outside the department. The composition of the Advisory committee can be changed as appropriate and must be approved by the thesis advisor and the Anatomy and Structural Biology Graduate Committee.

The Advisory committee has meetings with the student and her/his thesis advisor during the months of March/April but may meet more often if necessary. The student is required to prepare a one-page progress summary for the yearly meeting. This summary should be handed out to each committee member one week prior to the meeting. The committee must forward a report of the student's progress to the chairperson of the Anatomy and Structural Biology Graduate Committee. Continued enrollment in the program is predicated on satisfactory progress, as recommended by the Advisory committee and endorsed by the Graduate Committee of the Department on a year-by-year basis.

C Examinations

A. The Qualifying examination has two (2) deadlines in the Department of Anatomy and Structural Biology: April 1 and October 1. The first one is April 1 of the second year of being in the program, by which date the thesis proposal must be handed in to the committee members and by which date all required courses must be completed satisfactorily. If April 1 is missed, the next deadline will be October 1 of the third year, by which time all course work should be completed satisfactorily. After passing the examination the student is admitted to candidacy for a Ph.D. Two attempts at qualifying for admission to the Ph.D. candidacy are permitted. Students who fail to be admitted may seek a terminal M.S. degree under the guidance of the qualifying committee.

1. Prior to the start of the qualifying examination, the student in consultation with his/her advisor, should decide on a qualifying examination committee and three areas of breadth.

   a) The suggested areas of breadth should be aligned with the student's interests but be outside of the field of thesis research.

   b) The composition of the Qualifying committee should reflect the chosen areas of breadth. This committee must consist of three faculty members from the Anatomy and Structural Biology Department and at least two faculty members from outside of the department. The committee must include a present or former (within three years) representative of the Sue Golding Graduate Division. The proposed areas of breadth and Qualifying committee should then be submitted to the head of the Anatomy and Structural Biology Graduate committee for approval.
2. The Qualifying examination includes:

   a) A thesis proposal (discussed with your advisor) of 10-20 pages in length, which must be submitted by 4/1 or 10/1. The date of delivery of the proposal sets the time for the written and oral examinations.

   b) A written examination, which begins approximately two weeks after delivery of the thesis proposal. Upon approval of the thesis proposal the student will be given three questions by the qualifying committee covering the areas of breadth. The student writes a 10 page answer to one of the questions within three weeks of receiving the questions. The answer must not exceed ten (10) pages excluding references and figures. There should be no verbatim copying from review articles in answer to the question. This could lead to disqualification of the answer and require an additional answer to one of the other questions. Outside help should not be sought in preparing the answer.

   c) An oral examination, which takes place approximately one week after the answer to the written examination is submitted. The oral examination is based on the thesis proposal, the written question, the areas of breadth and general course work. The student should be sure to read the appropriate chapters relevant to their questions in the appropriate journals, i.e. Molecular Biology of the Cell, Journal of Cell Biology, etc. The student should be aware that they will be examined as vigorously with regard to the subject(s) of the other two questions during their oral examination. Lack of serious knowledge in these two areas may lead to the committee requesting that the student either retake the examination or give an additional answer to one of the other questions.

B. The Thesis examination should be taken within 3 years of passing the qualifying examination. Candidacy for a Ph.D. will terminate three years after taking the qualifying examination and admittance to candidacy. In exceptional cases, with the endorsement of the advisor, a candidate may apply to the Graduate committee for an extension of this deadline.

1. The Thesis committee must contain three faculty members from the Department of Anatomy and Structural Biology, two faculty members from outside of the department, a representative from the Sue Golding Graduate Division, and one member from an outside university (6 minimum).

2. The Thesis examination includes:

   a) A thesis which must be delivered in final form to each member of the Thesis committee at least two weeks prior to the thesis defense.

   b) A public departmental seminar to be presented on the thesis immediately preceding the thesis defense.

   c) A thesis defense before the thesis committee in which the student answers questions on the thesis.

D Other Requirements

There are formal and informal seminar series at which attendance is required. There is a student/postdoc run work in progress seminar series in which all students participate. In addition, individual laboratories and interest groups run journal clubs and informal presentations that the students are required to attend. Once a year the students and postdocs arrange seminars by distinguished outside lecturers. Students are encouraged to participate in biannual department retreats.
II. Biochemistry

A. Courses

Candidates for the Ph.D. in Biochemistry are required to take Graduate Biochemistry, one course in Biochemistry of Metabolic Regulation, and 4 additional courses (9 credits minimum) or their equivalent. The additional courses are chosen in consultation with the Student's Advisory Committee to provide both a broad base of scientific knowledge and in-depth knowledge in one's area of specialization. Normally, all course requirements are completed by the end of the second year of residence. The flexibility in course requirements permits specialization within the broad area of Graduate Biochemistry. For students in the MSTP pathway, 3 graduate courses (7 credits minimum) are required in addition to Graduate Biochemistry and one course in metabolism or metabolic regulation.

B. Qualifying Examination

The Biochemistry Qualifying Examination is based on a student's anticipated thesis research. A written proposal is prepared in the format of a research grant application. The proposed research is presented in an oral defense before a faculty committee. Students are eligible for the Qualifying Examination when they have (a) passed Graduate Biochemistry, one metabolism or metabolic regulation course, and 2 additional semester-length graduate courses; (b) received 2 passing grades in Journal Club presentations (described below); (c) selected a Ph.D. advisor and received approval for the Qualifying Examination by their Student Advisory Committee; and (d) performed satisfactorily in 2 Student Advisory Meetings and regularly attended Departmental Research Seminars. The Qualifying Examination is taken during the fifth semester of residence.

C. Other Requirements

Each semester, Biochemistry students present and analyze a recent journal article, selected and analyzed with the advice of a faculty member. The first two presentations are graded (pass/fail) by the Chairperson of the Student's Advisory Committee and the Faculty Advisor for the Journal Club. The presentation is given a passing grade if both faculty evaluations are “pass”. In addition to attending and presenting at Journal Club, students are expected to attend all Biochemistry Departmental Seminars, given at noon on alternate Tuesdays, or at other announced times.
III. Cell Biology

A. Courses

Students in Cell Biology, are required to take the Graduate Biochemistry course (fall semester) and six additional courses, for a total of seven courses. For MSTP students, a total of 5 courses, including the Graduate Biochemistry course, is required. Students are encouraged to take Molecular Genetics, Gene Expression, and Molecular Cell Biology.

B. Qualifying Examination

Advancement to candidacy is based on the successful oral defense of a written research proposal, usually in the Spring of the second year. The problem can originate from the student's reading of the literature, from courses and seminars, or from discussions. The problem must not lie within but can be close to the area of the student's thesis research. The problem is written up in the format of a grant proposal of no more than five single-spaced pages. The proposal will be evaluated by an Examining Committee following an oral presentation by the student.

C. Other Requirements

Graduate students participate in a variety of departmental activities. These include a bi-weekly Cell Biology Seminar program of invited outside speakers. Additionally, the department meets weekly, for a “work-in-progress” meeting in which post-docs and students describe the progress of their current research. There is also a student-organized evening series of "pizza meetings" in which students present original articles. About twice each year, the students invite a distinguished outside lecturer for a seminar and intensive discussions.

It should be noted that each student is required to present a formal seminar of their thesis research. This is generally accomplished as part of the departmental seminar series. Participation in the Graduate Student Symposium is encouraged.

Each student is required to have an advisory committee, consisting of the mentor and two additional faculty members. This committee is to meet with the student at least once a year to review progress toward the Ph.D. degree, including evaluation of academic accomplishment and thesis research.
IV. Developmental and Molecular Biology

A. Courses

All students must complete Graduate Biochemistry (Fall Semester). In addition, the student must take six other graduate courses acceptable to their advisory committee. DMB highly recommends Metabolic Regulation, Molecular Cell Biology, Gene Expression, and Molecular Genetics as a “core”

B. Qualifying Examination

Advancement to candidacy is based on the successful oral defense of a written research proposal, usually in the Spring of the second year. The problem can originate from the student's reading of the literature, from courses and seminars, or from discussions. The problem must not lie within but can be close to the area of the student's thesis research. The problem is written up in the format of a grant proposal of no more than five single-spaced pages. The proposal will be evaluated by an Examining Committee following an oral presentation by the student.

C. Other Requirements

All DMB students are required to attend bi-monthly departmental seminars, to present in and attend weekly departmental work-in-progress seminars and to present in and attend a weekly journal club, in addition to any clubs originating in the laboratory in which they are working. Within six months following successful completion of the qualifying exam, each student will formally present to the Department the proposed research project. One DMB faculty member, besides the advisor, must be on the student advisory committee, which will meet with the student at least once per year to discuss research progress. Additional information on the Advisory Committee is available from the DMB office. For the thesis defense, one examiner from another institution is recommended.
V. Microbiology & Immunology

A. Courses

Candidates for the Ph.D. Degree in Microbiology & Immunology will be expected to acquire a formal background in the biological sciences, which usually requires 4 semesters of course work. The primary aim of the initial graduate training period is to establish a broad base of knowledge in contemporary biological sciences, as well as acquire those skills fundamental to productive laboratory research. The course requirements are: Graduate Biochemistry (Fall semester) and six other graduate courses, which usually include Microbial Pathogenesis, Molecular Genetics and Gene Expression. Such a core should be supplemented by courses in the area of a student's interest (e.g. Virology, Immunology, Molecular Cell Biology). A special advisory committee will work with the individual candidate to select courses and to advise a student on the formulation of an appropriate program.

B. Qualifying Examination

Advancement to candidacy is based on the successful oral defense of a written research proposal, usually in the Spring of the second year. The problem can originate from the student's reading of the literature, from courses and seminars, or from discussions. The problem must not lie within but can be close to the area of the student's thesis research. The problem is written up in the format of a grant proposal of no more than five single-spaced pages. The proposal will be evaluated by an Examining Committee following an oral presentation by the student.

C. Other Requirements

There is a weekly departmental student research presentation of work-in-progress. Students are expected to present yearly.

An advisory committee will meet individually with each student at least once a year. This committee will review the progress toward the goals of choosing and completing courses, defending a research proposal as part of the qualifying exam, completing research for the Ph.D. writing a thesis and defending it before a faculty committee. The composition of the advisory committee (at least 3 faculty not including the mentor) will be decided by the student and mentor and need not be identical to that of the final defense committee. A formal report for each meeting should be filed in the Microbiology & Immunology office as well as the graduate office. For the thesis defense, an outside examiner is recommended but not required.
VI. Molecular Genetics

A. Courses

Students in Molecular Genetics are required to pass a total of 6 courses. These must include Graduate Biochemistry (SGGD1001) and Molecular Genetics (SGGD1005). They are also expected to include Gene Expression (SGGD 1006) and Molecular Cell Biology (SGGD 1004). Two additional upper-level courses are to be selected in consultation with the student’s advisor and advisory committee.

B. Qualifying Examination

Advancement to candidacy is based on the successful oral defense of a written research proposal, usually in the Spring of the second year. The problem can originate from the student's reading of the literature, from courses and seminars, or from discussions. The problem must not lie within but can be close to the area of the student's thesis research. The problem is written up in the format of a grant proposal of no more than five single-spaced pages. The proposal will be evaluated by an Examining Committee following an oral presentation by the student.

C. Advisory Committee

Each student has an advisory committee, to be formed during their second year after they have chosen their thesis laboratory. The advisory committee consists of the student’s thesis advisor and 2 or 3 additional faculty, chosen by the student in consultation with her or his advisor, who will be helpful in guiding the student’s thesis research. The advisory committee is required to meet at a minimum of once a year to discuss the student’s progress. A meeting form should be completed and filed with the departmental office and the Graduate Office as a record of these meetings.

D. Other Requirements

Students participate in a departmental work-in-progress seminar series. In addition, students are required to attend our noon seminar series of outside speakers.
VII. Molecular Pharmacology

A. Courses

All students in Molecular Pharmacology must complete Graduate Biochemistry, Molecular Approaches to Drug Action and Design, and Hormone Action and Signal Transduction. In addition, the student must complete successfully three additional graduate courses acceptable to his/her advisory committee. The following courses are recommended: Molecular Cell Biology, Gene Expression, Molecular Genetics.

B. Qualifying Examination

Advancement to candidacy is based on the successful oral defense of a written research proposal, usually in the Spring of the second year. The problem can originate from the student's reading of the literature, from courses and seminars, or from discussions. The problem must not lie within but can be close to the area of the student's thesis research. The problem is written up in the format of a grant proposal of no more than five single-spaced pages. The proposal will be evaluated by an Examining Committee following an oral presentation by the student.

C. Other Requirements

Seminars and journal clubs in which the students are expected to participate are as follows:

- Bi-weekly departmental seminar to which outstanding scientists are invited to present their latest research.
- Weekly informal research-in-progress meeting and journal club for students and postdocs.
- Weekly journal and research lab meetings.
- All students are required to give a formal seminar during their final year.
VIII. Neuroscience

A. Courses

All graduate students are required to take Molecular and Cellular Neuroscience, Developmental Neuroscience, Integrative Systems, Neuroanatomy: Basic and Applied, and Biochemistry. In addition, each student must take a minimum of three additional elective credits.

The Department of Neuroscience Graduate Education Committee recommends that incoming students interested in Neuroscience should complete their course requirements by pursuing one of the following three tracks (or a suitable variation of one of these tracks):

Track A
Year 1
Fall Semester: Molecular and Cellular Neuroscience and Biochemistry
Spring Semester: Neuroanatomy: Basic and Applied and Integrative Systems

Year 2
Fall Semester: Developmental Neuroscience
Spring Semester: Three semester hours of an Elective(s)

Track B
Year 1
Fall Semester: Developmental Neuroscience and Biochemistry
Spring Semester: Three semester hours of an Elective(s)

Year 2
Fall Semester: Molecular and Cellular Neuroscience
Spring Semester: Neuroanatomy: Basic and Applied and Integrative Systems

Track C
Year 1
Fall Semester: Molecular and Cellular Neuroscience and Developmental Neuroscience
Spring Semester: Neuroanatomy: Basic and Applied and Integrative Systems

Year 2
Fall Semester: Biochemistry
Spring Semester: Three semester hours of an Elective(s)

B. Qualifying Examination

All graduate students are expected to take the Qualifying examination by the end of their 2nd year, and M.D.-Ph.D. students by the end of their 3rd year. Graduate students who have not passed the qualifying examination by the end of their 3rd year (or 4th year for M.D./Ph.D. students) will be notified in writing that they must communicate to the Education Committee the reasons for the delay in fulfilling this requirement. In consultation with the student and his/her mentor, the Education Committee will then set a final date for completion of this requirement.

The qualifying examination committee will include five members selected by the student in consultation with his/her advisory committee. The proposed committee must be approved by the Education Committee of the Department. Students are strongly encouraged to include on their committee faculty members from departments other than Neuroscience. At least one member of the committee must be from another department.
A minimum of six to eight weeks prior to the qualifying examination, students will prepare for the qualifying examination as follows:

1. **Thesis Research Proposal**: The date of delivery of the proposal sets the time frame for the qualifying examination. The proposal must be submitted at least four weeks prior to the qualifying examination. The format for the proposal is described below.

2. **Tutorials**: Students will engage in tutorials with three of the five committee members. The topics may complement but should not overlap the content of the Thesis Research Proposal. The tutorials may begin prior to or immediately after the submission of the proposal.

3. **Examination**: The format of the qualifying examination is oral. Students will be examined both on their proposal and on the three topics covered in the tutorials. All five members of the qualifying examination committee will have read the proposal.

The Thesis Research Proposal should be typed, double-spaced, with a suggested upper limit of 10 pages and an **absolute** upper limit of 15 pages (excluding references). It should be a concise statement of the thesis research the student proposes to undertake in the mentor’s laboratory. The proposal should represent the original work of the student. However, students may discuss the proposal with faculty and seek critical input from their mentors and other scientists prior to but not after submission of the final proposal. It should be emphasized that a successful defense of the thesis proposal does not commit students to conducting the proposed experiments nor does it prohibit students from changing mentors if the need arises. The proposal should include the following four sections:

1. **Specific Aims** - This should be a brief description of the specific research to be accomplished, including a clear statement of the hypotheses to be tested.

2. **Background and Significance** - This should be a scholarly review of the primary literature relevant to the research being proposed. It should discuss the significance of the research area and indicate how completion of the proposed specific aims will resolve unanswered questions and lead to new knowledge.

3. **Experimental Design** - This should be a clear description of the experimental Design and procedures to be used to accomplish the specific aims. It should include justification of the methods chosen and discussion of potential and alternative approaches. It must also describe how the data will be analyzed and interpreted relative to the hypotheses being tested.

4. **References**

**C. Thesis Format**

The Neuroscience Department requires that the Thesis should be according to Format B, as described in Section 16 of the Graduate Division Academic Policy and Guidelines. Briefly, this requires that the body of the thesis should be in the form of manuscripts that have been or are ready to be submitted for publication in a scholarly journal. Each manuscript will constitute a Chapter of the Thesis.

**D. Other Requirements**

Students are expected to attend departmental seminars and journal clubs.

The Department of Neuroscience, while not requiring an outside reader for the thesis defense committee, often brings one or two in to serve as examiners in the field in which the student has done his/her research. Students are required to give a Departmental seminar, open to the academic community, upon completion of their thesis research.
IX. Pathology

A. Courses

Candidates for the Ph.D. Degree in Pathology will be expected to obtain a broad and strong foundation in the biological sciences. Course requirements include Graduate Biochemistry, Mechanisms of Disease, and either Molecular Genetics or Gene Expression.

Additional courses will be selected depending upon individual interests and needs, and with the advice of the student's advisory committee. At least two courses per semester should be taken during the first two years. All students in the Ph.D. program will graduate with a minimum of seven courses. The Pathology department faculty is offering courses for its students (not for credit) addressing grant writing, methodology and critical reading that will prepare students for the qualifying exam.

B. Qualifying Examination

Students are required to take a qualifying exam after they have completed the first two years of course work. Students select a research proposal and write a brief grant application in which background, methods and proposed experiments are outlined. The student also defends this proposal orally before a Qualifying Exam Committee that consists of four faculty members.

C. Other Requirements

The departmental Ph.D. Committee will constitute the Advisory Committee until the student chooses a Thesis Problem. A thesis advisory committee will then be established and will follow the Graduate Division requirements.

The departmental Journal Club/Works-in-Progress meets once a week. Seminars are held every Tuesday at noon during the academic year. Attendance at these activities is required. Additional seminars in specific areas, e.g. Neuropathology, are organized on a biweekly basis.

For the Thesis Defense Committee, one outside reviewer from another institution must be included.
X. Physiology and Biophysics

A. Courses

Graduate students are required to take the following two courses: Graduate Biochemistry and Biophysical Chemistry of Macromolecules.

Four additional graduate courses must be taken and are selected in consultation with the students' faculty advisory committee (FAC). This committee is established as soon as the student elects a thesis mentor, and is composed of the mentor and two other faculty in the Graduate Division. By the end of the first year the student will have met with the FAC and have selected the four optional courses.

B. Qualifying Examination

A qualifying examination is generally taken after the second year of graduate study is completed. It consists of an oral defense of a proposal of the student’s proposed Thesis Research. The proposal is in NIH grant format. The exam is given by a committee that includes three or four members representing the Department of Physiology and Biophysics and at least one representative from another department of the Graduate Division.

C. Journal Club

Oral presentations of scientific papers outside the thesis work (and chosen by each student and his/her sponsor) are presented. Students are required to describe the scientific work presented in the paper, to analyze critically the methods, results and conclusions, and to relate the paper to the thesis work to be performed. A passing grade for two journal club presentations is required.

D. Other Requirements

The department strongly encourages an outside reader for the thesis defense committee.
Appendix II

STUDENT RECORDS AND PRIVACY RIGHTS OF STUDENTS

In accordance with the Federal Family Educational Rights and Privacy Act (FERPA) of 1974 (Section 438 of the General Education Provisions Act, 20 USC 1232g), commonly referred to as the "Buckley Amendment," we take this opportunity to inform you of the policies of the Albert Einstein College of Medicine (AECOM) and the Sue Golding Graduate Division of Medical Sciences (SGGD) respecting the educational records of our students. These policies have recently been examined to assure compliance with the Privacy Act, and are made available to you in accordance with its provisions.

Students may obtain copies of this statement upon request from the Registrar of the school in which they are enrolled (AECOM or SGGD).

A. DEFINITIONS OF TERMS USED IN THE ACT

1. "Student" includes any individual with respect to whom an educational record is maintained. Whenever a student has attained 18 years of age, the rights accorded to and the consent required of the parent shall be accorded to and required of the student.

2. "Financial Aid" means a payment of funds provided to an individual which is conditioned on the individual's attendance at an educational agency or institution.

3. "Parent" includes a parent, a guardian, or an individual acting as a parent or guardian.

"Personally identifiable" means that the information includes the name of a student, the student's parent or other family member, the student's address, a personal identifier such as the student's social security number of other information which would make the student's identity easily traceable.

5. "Record" means any information on the student recorded in any medium.

B. Type and Location of Records kept at AECOM and SGGD

1. The primary ("official") record of AECOM students is the record kept in the Office of Education under supervision of its Registrar. The primary ("official") record of graduate students is kept in the office of the SGGD under supervision of its Registrar.

2. In addition to the primary record maintained by the appropriate Registrar, informal or "unofficial" educational records may be kept for AECOM and SGGD students by course leaders, individual instructors, individual subdivisions of the Office of Education, advisors, clerkship leaders and individual basic science and clinical departments. Inquiries concerning these records should be made in writing to the appropriate person, individual, department or administrative office.

3. Records pertaining to student finances, in addition to those maintained in the official educational records, may be kept in the Student Finance Office and are in the charge of the Student Finance Officer and the Associate Dean for Students. Inquiries from AECOM students concerning those records should be made in writing to the Associate Dean for Students, with copies to the Registrar and the Student Finance Officer.

4. Records of examination scores in the basic sciences are kept in the Office of Instructional Support Services (Room 607-BECHS) and the Office of the Associate Dean for Students. Inquiries concerning these records should be made in writing to the Associate Dean for Students.
C. Inspection and Review of Records

1. Students may inspect and review their education records upon written request to the person in charge of the records. That person will comply as soon as possible. Under the current law this must be done within 45 days of the written request.

2. Students have the right to review and inspect all documents in the records except:
   a. confidential evaluations and letters of recommendation filed before January 1, 1975;
   b. evaluations and recommendations filed after January 1, 1975 if the Students has waived the right to see them;
   c. financial records and statements of their parents;
   d. those documents classified by the Privacy Rights law as non-educational records including:

      (1) Records of instructional, supervisory and administrative personnel and educational personnel which are in the sole possession of the makers of the records.

      (2) Records created or maintained by a physician, psychiatrist or psychologist acting in a professional capacity.

3. If, after inspecting and reviewing their records, students have any question about them, they may request an oral or written explanation and interpretation.

4. Students may also secure a copy of every document in their folder open to them, for a fee determined by Yeshiva University.

D. Correction of Records

1. If, after inspecting and reviewing their records, students believe that any information contained in them is inaccurate or misleading or violates their privacy or other rights, they may request in writing that the office which contains those records amend them.

2. That office must reach a decision and inform the students making such requests of the decision, in writing, within a reasonable period of time.

3. If the office refuses to amend the record in accordance with a student's request, the student has the right to a hearing.

4. This hearing will be conducted by a committee appointed by the Dean, consisting of persons who do not have a direct interest in the outcome of the hearing.

5. The hearing will be held within a reasonable period of time after the student has made the request, and the student will be given notice of the date, place, and time, reasonably in advance of the hearing.

6. Students will be afforded a full and fair opportunity to present evidence relevant to the issue raised, and may be assisted or represented by individuals of their own choice at their own expense, including an attorney.

7. The committee will make its decision in writing within a reasonable period of time after the conclusion of the hearing.

8. The decision of the committee will be based solely upon the evidence presented at the hearing and will include a summary of the decision and reason for the decision.

9. If, as a result of the hearing, the committee supports the complaint of the student, the education records of the students will be amended accordingly and the student will be so informed.
10. If the committee decides against students, they have the right to place in their record a statement commenting on the information in the record and/or stating their reasons for disagreeing with the decision. This explanation will be maintained by the University as part of the education record of students as long as those records are maintained, and whenever a copy of those records are sent to any party, the explanation will accompany them.

E. Disclosure of Information from Records

1. No office maintaining an education record of students will disclose any personally identifiable information from that record to anyone other than the individual students themselves without the written consent of the student, except as provided below.

2. With the prior approval of the Associate Dean for Students (for medical students) or the Director of the SGGD (for graduate students) the primary record of students may be disclosed without their written consent to faculty members, school officers and student advisors within the College of Medicine or the SGGD who have a legitimate educational interest in the information. This includes mentors, potential mentors identified by the student, training grant directors, qualifying committees, student advisory committees, and departmental education committees.

Other educational records may be disclosed without written consent to faculty members, school officers and student advisors at the discretion of the individual responsible for them.

3. The College reserves the right to forward a student's educational records to another school in which it understands that the student is currently enrolled, or seeks, or intends to enroll, without the written consent of the student.

4. The records of students may be disclosed without their written consent to those federal and state government agencies and officials to whom information is specifically required to be reported or disclosed by law.

5. The records of students may be disclosed without their written consent to an agency to which students have applied for, or from which they have received financial aid.

6. The records of students may be disclosed without their written consent to certain educational agencies and institutions conducting studies, provided that the studies are conducted in a manner which will not permit the personal identification of students by individuals other than representatives of the organization and the information will be destroyed when no longer needed for the purpose for which the study was conducted.

7. The records of students will be disclosed without their written consent to their parents, if they are dependents of the parents as defined in Section 152 of the Internal Revenue Code of 1954, and the parents to certify.

8. The records of students will be disclosed without their written consent as required to comply with a judicial order or subpoena.

9. The records of students may be disclosed without their written consent in a health or safety emergency, if knowledge of the information is necessary to protect the health and safety of the student or other individuals.

10. The following information related to students is considered "directory information": name, address, telephone number, date and place of birth, participation in officially recognized activities, dates of attendance, degrees and awards received and similar information. Legally this information can be disclosed without a student's permission, however it is AECOM policy not to release "directory information" except with the student's written consent.
F. Records of Disclosures

1. The Office of the Registrar and the Office of the SGGD will, for each request, excepting those from members of the Office of Education, and for each disclosure of personally identifiable information from the education records of a student to outside institutions or agencies, maintain a record which indicates the parties who have requested or obtained information and the legitimate interests of these parties. The records of disclosures may be inspected by the student.

G. Right of Complaint

If a student feels that the College is not complying with the requirements of the Family Educational Rights and Privacy Act of 1974, or the regulations issued by the Department of Health, Education and Welfare implementing that Act, he, or she may file a complaint in writing with:

Family Policy Compliance Office
U.S. Department of Education
600 Independence Ave., SW 1
Washington, D.C. 20202-4605