

STUDENT HANDBOOK Graduate School of Biological Sciences



2012-2013

Graduate School of Biological Sciences Mount Sinai School of Medicine

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Handbook Disclaimer

This Student Handbook is subject to review and change from time to time. The Handbook is continuously revised and updated as necessary and policies may change in the course of any given academic year. We therefore suggest that you check this Handbook to confirm policies and requirements in effect at any given time. No provision of this Handbook should be construed as creating any contractual obligation. Handbook updates are typically done twice an academic year.

Last modified: December 10 2012

PhD Progress Points Deadlines (See section under Progress Points for details)

Completion of Core Curriculum

Declaration of Dissertation Advisor and

MTA

Completion of General Knowledge Exam

Submission of Thesis Proposal

Successful defense/deposit of

Dissertation

End of 2nd semester after matriculation

End of 2nd semester after matriculation

Third semester after matriculation

Fifth semester after matriculation

Variable: current average is end of 11th semester after matriculation

The maximum time limit for completion of all requirements for the PhD degree is seven years after matriculation in the PhD Program.

Students who do not meet these deadlines will be placed on academic probation.

MD/PhD Progress Points Deadlines (See section under Progress Points for details)

Declaration of Dissertation Advisor and MTA

Completion of Core Curriculum

Completion of General Knowledge Exam

Submission of Thesis Proposal

Successful defense/deposit of Dissertation

Submission of Thesis Proposal

Successful defense/deposit of Dissertation

End of 2nd summer after 1st year of matriculation

End of 2nd summer after 1st year of matriculation

Fifth semester after matriculation

Seventh semester after matriculation

Variable: current average is end of 12th semester after matriculation

The maximum time limit for completion of all requirements for the PhD and MD degrees is ten years after matriculation in the MD/PhD Program.

Students who do not meet these deadlines will be placed on academic probation.

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Statement of Accreditation

Mount Sinai School of Medicine is regionally accredited by Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104; (215) 662-5606. The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

At its session on November 18, 2010, the Middle States Commission on Higher Education granted Mount Sinai School of Medicine accreditation. On the same day, the New York Board of Regents approved a new charter recognizing the school's independence and official name change to "Mount Sinai School of Medicine".

Mount Sinai School of Medicine is accredited by the Liaison Committee on Medical Education of the Association of American Medical Colleges and the American Medical Association. Its teaching hospitals are accredited by the Joint Commission on Accreditation of Health Care Organizations.

All educational programs of the School of Medicine and its affiliated institutions have been approved by the governmental, academic, and professional bodies having responsibility in the respective areas. These include the Board of Regents of the State of New York, the State Education Department, the Board of Higher Education of the City of New York, Council on Education for Public Health, American Board of Genetic Counseling, and medical specialty boards and professional societies.

Diversity Statement

Mount Sinai School of Medicine is committed to promoting and supporting diversity and inclusion in the research, clinical, and educational realms, and to meeting the needs of our diverse students, faculty, staff, and the communities we serve. We are committed to increasing the representation of women, ethnic minorities, and individuals who are members of groups underrepresented in medicine and science among our trainees, research and clinical faculty and our leadership.

Diversity in the health professions and science benefits every aspect of health, healthcare and biomedical research by addressing the needs of the world's diverse communities. In addition, a diverse professional and academic environment enhances the learning experiences of all students, trainees, and postdoctoral fellows and effectively impacts culturally diverse populations to achieve health equity and improve health outcomes.

Mount Sinai's commitment to diversity is reflected in our continued determination to increase the diversity of our faculty and trainees. Our longstanding tradition of successfully attracting, retaining, and promoting a diverse student body has made us a national leader in the movement to train future physicians and scientists belonging to groups historically underrepresented in medicine and science.

1. Programs of Study

The Graduate School of Biological Sciences is an integral part of Mount Sinai School of Medicine, an institution that has enjoyed a tremendous expansion of its excellent basic research faculty in addition to further building its excellent clinical research faculty. There is the concomitant enrichment and development of our educational programs and our research and educational facilities. The institution is further dedicated and prepared to apply new knowledge towards the development of insights into human disease and of new therapies and preventive strategies.

1.1 PhD Program

Our students are at the heart of these investigative activities as partners in the work, whereby they receive the most significant part of their doctoral training in a mentor-student relationship leading to the PhD dissertation. This research centerpiece of their training is preceded by a period of exploration of the Graduate Faculty and Multidisciplinary Training Areas (MTAs) in a year of core courses, special seminars/journal clubs and laboratory rotations. It is further enhanced by an individualized program of advanced coursework within one of eight Multidisciplinary Training Areas, a format that is at the cutting-edge of modern science research training.

Doctoral students may enter the PhD or MD/PhD Programs without a formal commitment to a particular MTA. This allows their initial exploration of potential research mentors and areas of concentration to remain fully open to changes in their interests as they participate in the General Program Requirements and learn about new areas of research through their seminars, journal clubs and laboratory rotations. Students with well-defined interests are encouraged to focus their rotations within the realm of that interest even before any written commitment to a particular dissertation advisor or MTA. The rotation duration is a thirteen-week half time training in the laboratory of a graduate faculty member. At the end of each rotation students are expected to present their rotation experience to their peers at least twice within the year. After the rotation period at the end of year 1, students are expected to formally choose a research mentor, and decide on the Multidisciplinary Training Area if they have not already done so planning matriculation, in which they will focus their advanced coursework, journal clubs and seminars and choose three members in their Advisory Committee with whom they will be meeting at least once a year to assess their progress.

All students must be full-time. All students are required to develop a research project, under the supervision of one or more faculty members, which results in a thesis that reports the new findings, and is presented, defended and deposited. The choice of the research laboratory, through a series of laboratory rotations (BSR 1006 and BSR 1007) and academic credit for the thesis project (BSR 8000 and BSR 9000) are part of each student's academic program. The maximum time limit for the completion of all requirements for the PhD degree is seven years. PhD students must defend and deposit the dissertation by June 30 of the seventh year in the Program. Students who do not deposit by April 15 will not be eligible to receive their degree in the graduation ceremony of the same year. In order to be able to participate in the graduation

ceremony of the same year, students will be expected to have successfully defended before the graduation ceremony.

The PhD degree is granted either in Neurosciences or in Biomedical Sciences by the Mount Sinai School of Medicine.

1.2 MD/PhD Program

The MD/PhD Program is designed for students interested in careers in medical research and academic medicine.

Students entering into the dual program take advantage of the flexibility in the School's curricular structure to complete the graduate school's Core courses during their first year of their MD/PhD phase. They partially substitute this work for a block of the Medical School curriculum. First year MD/PhD students also begin other portions of their Graduate Program --Laboratory Rotations during the summers and Introduction to Journal Club. Students are required to participate in the Medical Scientist Research Seminars (MSRS), which is a special seminar series that gives MD/PhD students the opportunity to hear presentations by other MD/PhD students as well as new faculty. MD/PhD students take the other elements of the initial Medical School curriculum and thus forge bonds with both the entering PhD and MD classes. The Laboratory Rotation helps guide MD/PhD students towards an optimal choice of dissertation advisor and MTA. The minimum rotation period is six weeks of full-time work and students are expected to formulate a decision on their choice of a dissertation advisor by the end of the summer between the first and second year in the program. The rotation work is graded as a 4credit component of the Graduate School course. Students are expected to present each of their rotation experience to their MD/PhD peers at the end of summer. For those rotations, MD/PhD students should utilize the standard Rotation Agreement and Evaluation forms.

The PhD work is usually completed during the three to four years after the initial two years of the Medical School and Graduate School coursework. The student will complete the final clinical training component of the Medical School curriculum after the doctoral dissertation has been successfully completed. During the PhD phase, students will build upon the pathophysiologic and clinical diagnosis material already mastered.

During the final year of PhD phase, students will participate in an intensive clinical refresher. This will involve spending one afternoon each week with specially chosen clinical mentors Students can take maximal advantage of the flexibility of timing for entry into the clinical clerkships to complete the total Program without "down time", and also position the major clinical work in closest juxtaposition to the postgraduate residency training that most MD/PhD students elect after graduation.

MD/PhD students will not be permitted to begin the third year of the Medical School curriculum after the PhD period of work unless the dissertation is both defended and deposited. The responsibility for open, realistic and careful planning is shared by the student and dissertation

advisor. This provides the maximum opportunity for the student to do the best possible job in both arenas.

MD/PhD students who return to the third year of medical school must complete the same clinical requirements as other medical students during a period of two years that includes an appreciable amount of elective time, or in a more condensed period with less elective time. The clinical clerkships take advantage of Mount Sinai's superb facility and the diversity of experience provided by our affiliated hospitals -- e.g. Elmhurst, Bronx VA, North General, Queens General, St. Barnabas-NJ, Englewood, Cabrini, etc. -- as well as in the community settings, physicians' practice groups, and Mount Sinai's own outpatient settings. That assignment is usually by lottery, but MD/PhD students who have a Program-related reason to request a specific rotation will be accommodated. Careful planning, in consultation with the clinical advisors and MD/PhD directors, will afford students the smoothest transition back to clinical medicine. Enough flexibility also exists so that elective time may be shifted to the beginning of an academic year to allow an MD/PhD student to finish up experimental or dissertation work. Thus students are readily able to enter clerkships at various times between July and November. Many students will have completed the requirements without loss of any or a substantial amount of clinical elective time. They may, and often do, choose to spend some of that elective time in the laboratory, continuing offshoots of their projects. Several other students have used some of their elective time during the final phase of the Program to explore research programs elsewhere, e.g., at the NIH. Students entering the fourth MD year should investigate the USMLE time limit set by some states for taking Step III. Students should check the USMLE website (www.usmle.org) for further details. MD/PhD students should refer to the Medical Student Handbook for further details on the USMLE, information on clinical career choices and residency programs.

1.3 Master Programs

Master of Biomedical Sciences

The Master of Biomedical Sciences program takes advantage of the multidisciplinary research education programs on our campus, the commitment to translation of fundamental findings in basic biomedical sciences to applications in the prevention of disease and novel therapies for disease, and the commitment to prepare students to contribute to various aspects of the biomedical enterprise. This program responds to the recognized need for generalist graduate study in the medical sciences to provide students with the background essential for the pursuit of a variety of careers in the health professions, whether in doctoral programs in research and/or clinical medicine or for employment in the for-profit sector.

The MS in Biomedical Sciences is a full-time course of study requiring a minimum of 45 credits. The first year will ensure mastery of fundamental core concepts in contemporary cellular and molecular biomedical sciences, application of statistical principles to experimental design and data analysis, responsible conduct of research, and critical analysis and presentation of primary research literature in the biomedical sciences. In addition, a significant amount of time will be spent doing research in a laboratory, which will have been carefully chosen in consultation with the Program Director. Course work in the third term will be devoted to advanced elective study in the student's chosen area of interest as well as continued work on a research project, which

will form the basis for a Master's thesis.

Students in this program will be taught together with incoming first-year PhD students in their core courses and will be integrated into the total academic and social environment of the Graduate School of Biological Sciences. The program is intended for students who are not ready to make a 5-year commitment to obtain a PhD or who need to bolster their competitiveness for MD or MD/PhD programs and who value structured advanced education and research training in the biomedical sciences. We expect that students will be able to complete degree requirements in 3 terms, with an option to continue their research for a fourth term without additional tuition payments.

Students will pursue basic science research under the tutelage of a mentor. Each student project is expected to culminate in a co-authorship of a paper to be published in a peer-reviewed journal. Selection of a research laboratory and mentor occurs during the first month in the program and the choice is finalized no later than October 1.

Master of Science in Genetic Counseling

The Genetic Counseling Program is a 21-month, full-time course of study designed to train future genetic counselors through intensive coursework and a variety of clinical placements.

The Program is sponsored by Mount Sinai School of Medicine's Department of Genetics and Genomic Sciences, a large multidisciplinary center providing clinical and laboratory services to a wide range of patients and families. The faculty is on the forefront of research in the diagnosis and treatment of genetic disorders and has proven a commitment to the field of genetic counseling and to the communities they serve. The integration of academic and clinical disciplines within one of the country's preeminent medical centers provides an ideal environment for this Master's Program, affording our students unparalleled opportunities for study, research, and practice in the challenging and exciting field of human genetics and genetic counseling.

Students must complete the core curriculum. Students are also required to rotate through a variety of clinical settings from prenatal to pediatric to adult genetics. These rotations provide opportunities for extensive supervised experience in history taking, interviewing, psychosocial assessment, and genetic risk assessment.

Candidates for the Master of Science in Genetic Counseling must complete an in-depth study of a selected genetic counseling issue or topic. Students are strongly encouraged to study topics appropriate for national presentation and/or publication. Following graduation, the Counselor is eligible for the American Board of Genetic Counseling Certification Examination.

The Program is accredited by the American Board of Genetic Counseling.

Master of Public Health

The Master of Public Health degree is a two-year program that prepares students for careers in public health. Applicants to the Program must have a Bachelor's Degree from an accredited college or university. For complete program description and application materials please visit the website at: http://www.mssm.edu/education/graduate-school/degrees-and-programs/mph-

program

Certificate, Master of Science, and Ph.D. in Clinical Research

The Clinical/Translational Research Training Programs of The Mount Sinai Graduate School of Biological Sciences are designed to foster the development of future leaders in patient oriented research. These training opportunities are intended to encourage the development of critical thinking necessary to conduct innovative hypothesis driven, independent and collaborative clinical/translational scientific research, in an effort to improve patient care and the wellbeing of society. In particular, we hope to enhance the research opportunities of clinical scientists as well as enhance the ability of basic scientists to better position themselves to translate the promise of their respective discoveries into the clinical arena, in a meaningful way with significant impact.

A rigorous curricular foundation designed to promote an in depth understanding of research methodologies and processes essential to translating the promise of scientific discovery into solving problems of disease is central to these educational initiatives, and forms the basis of our Certificate Program, Masters of Science in Clinical Research, and Ph.D. in Clinical Research. For complete program description and application materials, please visit the website at: http://www.mssm.edu/education/graduate-school/degrees-and-programs/clinical-research-education

2. Admissions

2.1 PhD Program

Students who have, or will have completed baccalaureate programs and who wish to pursue a doctoral degree in biomedical sciences research should apply online and submit required documents for consideration. Most applicants have completed the following courses: general biology, general chemistry, general physics, organic chemistry (2 semesters), mathematics (through integral calculus), and an introductory course in biochemistry. In special instances some of these requirements may be waived as a prerequisite for admission. Arrangements will have to be made to take them later, e.g., biochemistry may be taken during the summer before matriculation. In addition, it is desirable for applicants to have taken advanced science courses. It is very important for applicants to have had basic science research experience. Letters from research mentors and written comments from the applicant about prior research experience are major components of the application file.

Students who wish to transfer from another institution to a Mount Sinai degree-granting program must apply for admission through the regular Mount Sinai application process. Students who have completed the qualifying exam for their PhD at another institution will be required to pass the thesis proposal exam at Mount Sinai. Students who have passed their PhD thesis proposal exam at another institution cannot transfer to a Mount Sinai PhD program. The deadline for receipt of completed application packets is January 1, but early submission is highly recommended for full competition for fellowships. Applicants should indicate their field(s) of greatest interest. In addition to the application form and required fee, the applicant must supply official final transcripts from all institutions attended, three letters of recommendation, and official scores in the Graduate Record Examinations (verbal, quantitative, analytical). Applicants for whom English is not the first language must submit official scores of the TOEFL (Test of English as a Foreign Language). Applicants who have received a bachelor's degree in the United States need not submit TOEFL results. Applicant's who, on the basis of their submitted application materials, are being seriously considered for the Program, will be invited for interviews. The requirement for these interviews may be exchanged for a telephone interview, if geographical considerations are overwhelming. The Admissions Committee of the Graduate School will consider all the data on each applicant before making its decision.

2.2 MD/PhD Program

Extramural applicants who have decided to pursue studies towards both degrees first apply to the Mount Sinai Medical School through the AMCAS application. They elaborate on their interest in the MD/PhD program on a subsequent Mount Sinai Medical School admission application form and by submitting the research-oriented MD/PhD online application form as part of the Medical School application packet. In addition to the minimum subject requirements for admission to the Medical School, the applicant must have had research experience and should have taken advanced courses in science (e.g., physical chemistry, genetics, biochemistry). The MD/PhD application form is the only written material that must be submitted in addition to the

application materials to the Medical School. The applicant must submit 3 letters of recommendation from research advisors and GRE scores

Based on the application materials, a group of highly qualified applicants will be selected for interview. Admission to the MD/PhD program requires acceptance by the MD/PhD Admissions Committee. An applicant may be admitted to the Medical School without being admitted to the MD/PhD.

Students who are considering graduate studies in addition to medical school, but who are not yet sure about matriculation in the MD/PhD program, have the option of applying to the dual program during the first or second year in the Mount Sinai Medical School. They would then be applying to the doctoral program after they have had exposure to medical studies and have had an opportunity to further define their future plans. Such students should identify themselves to the MD/PhD Director as early as possible.

The deadline for receipt of completed application packets is December 15 but early submission is highly recommended.

2.3 Master's Degree Programs

Master of Biomedical Sciences

Applications are invited from students who have completed their undergraduate degree with a major in the sciences. Applicants should have a minimum GPA of 3.0 and some prior independent research experience. The Program admits only students who wish to pursue the MS degree on a full-time basis.

Admission is based on the applicant's academic records, prior MCAT or GRE scores, past research experience, letters of recommendation, and personal statement regarding ultimate career plans. Application deadline is June 1; application review will begin on April 15.

Master of Science in Genetic Counseling

Students who will be considered for admission must have completed a baccalaureate or graduate program at a college or university of high standing and should have a strong background in basic and social sciences including genetics, biology, chemistry, biochemistry, psychology, and statistics. Experience in a communication or support organization is recommended.

In addition to the application form and supporting documents, applicants are required to submit GRE scores for the general exam. Completed applications should be received by January 15th. Competitive applicants are subsequently invited to interview with our faculty and students. Applicants are informed of the Admission Committee's decision in the spring.

All applicants to the Graduate School are considered on the basis of their total merit. The school does not discriminate on the basis of sex, race, color, creed, religion, age, national origin, disability, veteran status, marital status, sexual orientation, or citizenship status, in accordance with institutional policy and in compliance with the requirements of the Civil Rights Act, the Education Amendments, the Rehabilitation Act, the Age Discrimination Act, and the Americans with Disabilities Act.

3. Financial Support

3.1 Stipend and Tuition

All MD/PhD and PhD students are offered a stipend, the full cost of tuition and a comprehensive health insurance package. Continuation of this support is contingent upon maintaining satisfactory progress (see section on Satisfactory Progress) in the Program at all times. The Program reserves the right to discontinue support in the absence of such progress. The stipend for annual year 2011-12 is \$32,500 and is adjusted periodically as the school endeavors to enable its students to keep pace with expenses and rising costs.

During their early training, students are supported by the Graduate School from some source of generalized funds, including training grants and institutional fellowships. This allows them to complete the General Program Requirements and to choose a dissertation advisor and a Multidisciplinary Training Area without concern for source of support. After this time, it is expected that the dissertation advisor will be responsible for the stipend, tuition support, and health insurance for the student if he/she is not supported by a Training Grant or individual fellowship. Students are encouraged to apply for individual fellowships from extramural sources. Students who are awarded a fellowship receive from the Graduate School for the duration of the award an additional \$2,000 annual bonus. For PhD students, stipend support will end on the day the student deposits his/her dissertation. For MD/PhD students, stipend support will end on the day the student receives his/her final degree, but health insurance coverage will continue until June 30 of the year they receive their final degree.

The Master of Biomedical Sciences program comprises 45 credits and is billed at \$850/credit (2011-12).

Tuition is only charged for courses taken at Mount Sinai. Students who are granted transfer credit for courses taken at other institutions, may apply for tuition credit on a per credit basis. Non-matriculated students may also enroll in courses that are part of a Master's program at the tuition rate charged by that program.

3.2 Travel Award

Students are encouraged to apply for a competitive Travel Award from the Mount Sinai Alumni Travel Fund. Students who plan to attend a meeting and present a poster and/or talk are eligible to apply. Students who are interested in taking a particularly meritorious course that will enhance their research program are also eligible to apply for a Graduate Student Travel Award. The Graduate Student Travel Awards Committee will review and make recommendations based on the merit of the application. Awards will range from \$200 to \$600. Each student will be eligible for one award per calendar year. The award is only applicable for travel taking place while the student maintains student status and is in good academic standing in the School. There are four deadlines for submission of applications each year. **NB:** The Graduate School reserves

the right to change this schedule. All students and faculty will be notified of such changes, via email, prior to the effective dates of such changes.

Travel Period	Application Submission	Award Notification
September 1 to October 31	July 15	August 1
November 1 to February 28	September 15	October 1
March 1 to May 31	January 15	February 1
June 1 to August 31	April 15	May 1

In addition to these deadlines and travel periods, one large award (up to \$2,500) may be made each year. This award will be granted on a competitive basis to a student who proposes a trip outside the USA for the purpose of presenting a paper at a high impact meeting or for attendance at a unique course that would greatly impact his/her program of study. Application for this award must be made by September 15 for travel during the school year.

Applications that do not follow this schedule will only be considered under extenuating circumstances. It is the student's responsibility to submit relevant information to be considered by the Committee. Incomplete applications will not be considered for funding and will be returned to the student following the notification date.

Students will be notified of the Committee's decision via e-mail by the Graduate School administration. Once an application has been approved, students must complete an online Mount Sinai Travel Request form at least two weeks prior to the departure date. The form must have the dissertation advisor's funding source for the portion of travel that is not funded by the Travel Award. Students will be responsible for making their own travel arrangements, paying for their expenses, and then submitting their request for reimbursement upon their return. All original receipts and a Travel Voucher Form must be completed and signed by the dissertation advisor and student before being submitted for reimbursement. The signed travel voucher must be submitted to the Graduate School's Financial Administrator no later than two weeks after the return date from the trip. At that time the student must also submit a paragraph or two about his/her participation, impressions and accomplishments of the meeting/course. The description should indicate how attendance to this meeting/course contributed to the enhancement of the student's program of study.

Failure to submit all required paperwork in accordance with these established deadlines would void the award. Advance funds are not available prior to travel.

3.3 Guidelines Concerning "Supplemental Work-in-Another-Department"

It is Graduate School policy that all students be supported at the same stipend level for the activities involved in their training program and that their program activities represent a full-time commitment. There are a variety of cogent reasons – fairness being one of them – for this policy. Nonetheless, there are students whose personal circumstances require them to seek

additional funds. Students should contact the Financial Aid Office for additional information. If necessary, the Graduate School Office will try to help find jobs that conflict as little as possible with the student's program and complement the student's educational advancement. If a dissertation advisor strongly wishes to help a student with a unique need to secure additional funds, it is required that the student be assigned specific, documentable activities that are distinct from those involved in the training program for which the extra funds will be earned ("supplemental work in other department"). Such arrangements must, furthermore, be approved in advance by the Dean of the Graduate School. Failure to do so will jeopardize the student's total funding package.

3.4 Teaching Assistantship

Many courses in the medical school and graduate school offer teaching assistantships to qualified students. Teaching assistantship activities may include videotaping of lectures, discussion-group leadership, holding review sessions, tutoring of students in course work, laboratory preparation, supervision, and cleanup and assisting in the preparation and grading of problem sets and/or examinations. The course director and student would work out the specifics of the assistantship together, and will vary from course to course.

Students may get paid for being a teaching assistant or may receive credit on their transcript, but not both. A maximum of one credit per semester for assisting in teaching activities is available. These credits will not count toward the total number of credit hours required for the MS or PhD degree. Approximately 30 clock hours of work during a semester is expected of a student earning one hour of credit. A TA Appointment Form must be completed with the instructor's signature before the student can register for the credit.

3.5 Tuition Waiver

Tuition is charged for all students regardless of employee status at Mount Sinai. The only exception to this policy is a Dean's waiver. The Dean of the Graduate School may waive tuition for Mount Sinai employees (e.g., research technicians) wishing to enroll in basic science PhD level course(s) who have an interest in pursuing a PhD in Biomedical Sciences at Mount Sinai. In such cases, all approvals must be attained and the waiver filed in the Dean's Office one week prior to the first day of class.

Process to request a tuition waiver: the employee must have written permission from both their Supervisor, approving the activity, and from the Course Director(s), approving the student's enrollment in the course(s). The student will file a written petition to the Dean of the Graduate School outlining their reason for enrolling in the course(s) and how the course(s) fits into their long-term graduate study. The petition must be accompanied by 1) written permissions from the Supervisor and 2) a <u>Course Permission Form</u> with all the required signatures. The deadline to apply for a waiver is one calendar week prior to the beginning of the course(s). The student will be notified prior to the first day of class as to the approval or denial of their petition.

The number of course credits that a non-matriculated student can take from offerings of the PhD degree program in Biomedical Sciences will be limited to a total of 9 credits and no more than 9 credits of tuition will be waived.

Employees may also take advantage of the Tuition Assistance Program (http://www.mountsinai.org/about-us/careers/benefits) as part of their benefits program. Tuition reimbursement forms may be picked up at 19 East 98th Street, second floor room 2D (Training and Education)

3.6 Upperclassmen Student Support by Graduate School Funds

Faculty who experience difficulty in funding students already committed to thesis work in their laboratories ought to take the following steps to secure funding support for the students in question: a) Discuss the issue with their Department Chair to determine whether departmental funds can be applied toward support of the student in question; b) If departmental funds are not available, the faculty member and the Chair should notify the Dean of the Graduate School and if deemed appropriate by the Chair, apply for Bridging Funds through the Office of the Dean of MSSM; c) Should both of these avenues fail, the faculty member should meet with the Dean of the Graduate School to discuss the details of the situation and establish a plan for the student and resumption of funding support by the faculty member. If the student's support is provided by Graduate School funds, the faculty member and the Dean of the Graduate School will meet every three months to review the funding status and plan accordingly.

4. Academic Programs

A. PhD Program

4.1 General Program Requirements

All PhD and MD/PhD students will be expected to fulfill the following requirements for the PhD degree:

Core Curriculum

According to MTA requirements

Laboratory Rotation

At least two rotations (except for transfer/advanced students) must be completed

Introduction to Journal Club

Two semesters

RCR: Responsible Conduct in Research

Fall semester, first year (except MD/PhD students who take the course during their first year in their PhD phase)

Biostatistics

Fall semester, first year (except MD/PhD students who take the course during their first year in their PhD phase)

Meet the Authors

Two semesters

Advanced Coursework

To fulfill the requirements of the chosen MTA, students who have successfully completed relevant graduate courses elsewhere will be granted exemption and/or graded credits at the discretion of the Dean, in consultation with the course and MTA Directors).

There follows a general description of these Program elements, including a description of the individual courses, typical MTA requirements, and criteria for advancement to candidacy. This is followed, in turn, by a section on Program Progress Points that details the criteria for satisfactory progress through Completion of the Core Curriculum and other General Program Requirements, and for approaching and successfully completing the three oral examinations that are part of the Program: the **General Knowledge Examination**, **the Thesis Proposal**, and the **Dissertation Defense**.

The Program requirements for the Genetic Counseling Program can be found following the section on Multidisciplinary Training Area Requirements.

4.2 Laboratory Rotation

Laboratory rotations are an important part of the first year of the Graduate Program at Mount Sinai. They give students the opportunity to experience different research projects, different laboratory and mentoring styles, and allow the faculty to assess the interests and aptitude of the students. All PhD and MD/PhD students must complete two laboratory rotations (in two different laboratories, and at times a third or a fourth rotation is required) before declaring a dissertation advisor and a Multidisciplinary Training Area. If incoming students were research technicians in a Mount Sinai laboratory prior to becoming a graduate student, they may choose their former employer as their dissertation advisor, but only after rotating in at least one other laboratory. The rotation facilitates the choice of dissertation advisor and also offers students an exposure to problems and techniques of interest to them. **Grading of rotations will be on a Pass/Fail basis**.

For each semester, the student should submit the name of the rotation advisor and start date of the rotation no later than the beginning of the semester. This is done via the submission of the Rotation Agreement Form.

A typical rotation time is 9-13 weeks during the academic year and 6-8 weeks in the summer.

Once a student has completed a rotation, the Rotation Evaluation Form must be filed by both student and faculty.

Summer rotations preceding matriculation must be at least six weeks long (start the first week in July).

Students will be required to make a formal presentation in an appropriate venue following the first rotation and following either the second or third rotation.

To facilitate and optimize the rotation experience for both the student and the faculty mentor, it is important that this student-faculty pair meet prior to the start of the rotation to discuss expectations, goals, requirements and laboratory guidelines. The discussion should be recorded on the <u>Laboratory Rotation Agreement Form</u> so that both the student and the rotation advisor are in agreement about what each expects from the other. The Form must be submitted to the Graduate School at the beginning of each rotation.

During the laboratory rotation, the student has to be aware of the balance that needs to be maintained between research and study time for ongoing courses. Students are expected to spend about 50% of their time (about 20 hours/week) on the laboratory rotation. Good time management can optimize the experience in that particular laboratory. The student should select a laboratory only after s/he has met with the mentor and discussed expectations, goals, and motivation.

At the end of each rotation, the student and rotation advisor should discuss the rotation experience and the rotation advisor must complete the <u>Laboratory Rotation Evaluation Form</u>, which must be submitted to the Graduate School at the end of each rotation. In general, the

evaluations from the first three rotation advisors (two if only two rotations are completed prior to declaration of the dissertation advisor) will determine the composite grade (**Pass or Fail**) assigned for the Rotations.

Students who are unable to find a lab by the end of their fourth rotation will automatically go before the Graduate School Promotions Committee for review. Outcomes of this review could include dismissal from the program if it is determined that the student is unlikely to find a suitable laboratory in a reasonable timeframe.

4.3 Advisory Mechanisms

Entering students are assigned a graduate faculty advisor who will handle student questions about courses, rotations or problems that surface throughout the first year. This faculty advisor is generally from the first choice MTA on the student's application to the Graduate Program. In cases where the student is unsure about their choice of MTA, a second advisor from another MTA may be assigned. Once a student selects a dissertation advisor and a Multidisciplinary Training Area, with the help of the dissertation advisor, he/she selects an Advisory Committee, which is comprised by two expert faculty in the field of study and one faculty in a related field but who is considered not to be an expert in the student's field of study. This Advisory Committee should meet at least once a year. All Advisory Committee members must be members of the Graduate Faculty.

Students and faculty are urged to understand that the advisory system is their strongest ally in identifying and helping to resolve problems, in maintaining a realistic set of expectations for progress, and as a source of extra ideas and new approaches. Students should take the initiative in scheduling meetings. Timely meetings are imperative.

Students should recognize that their thesis advisor is usually their most important mentor, who can not only advise the student on research directions, but may also provide career guidance. It is expected that thesis advisors provide opportunities for the student to develop independence, encourage the student to participate in collaborations, presentations, departmental seminars, introduce the student to colleagues, help the student to learn about writing and submitting manuscripts for publication, help the student to identify and work with their strengths and weaknesses and be committed to help the student make the next move in their career development. However, other faculty who take particular interest in the student's growth and development as scientists may often also serve as important mentors. Students are encouraged to develop relationships with any faculty whom they feel can provide significant research, career, and personal guidance.

Formal progress reports must be filed twice annually with the Graduate School Office. To meet this requirement, students are expected to meet at least once each year with the full Advisory Committee. All students will receive Progress Forms twice each year according to the schedule indicated on the Calendar. The student should review the Progress Form and correct/update as necessary. The Advisory Committee should use the last page of the Progress Form to evaluate the student's progress, clearly identify strengths and weaknesses and indicate plans for development. All members of the Advisory Committee should then sign and date the Progress

Form. It should then be returned to the Graduate School Office by the set deadline. Note that Progress Forms are due four weeks after distribution.

When a student fails to demonstrate satisfactory academic progress, the Program Director may mandate more frequent advisory committee meetings.

The final Advisory Committee meeting should take place at least 3 months before the anticipated thesis defense. Students should update their list of publications and manuscripts in press on the Progress Report form before this meeting. At this meeting, the Advisory Committee will certify that the student is ready to write their dissertation and to schedule a defense of their dissertation, if the student has at a minimum achieved the following:

- mastery of the literature, conceptual skills, analytical skills, writing and presentation skills, experimental skills, record keeping skills and work ethic meets doctoral-level standards
- intellectual contributions as a lead author, or equivalent, to at least one manuscript, published or in press, in a peer-reviewed journal. An exception to this requirement will require the unanimous approval by the Advisory Committee.

4.4 Choice/Change of Dissertation Advisor and Multidisciplinary Training Area

The choice of a dissertation advisor and Multidisciplinary Training Area (MTA) is a major focus of the first year of the Program. The year culminates with the student being accepted into the laboratory of a Graduate Faculty member for pursuit of the dissertation work. Together with that faculty member, the student decides on the MTA in which the advanced coursework, seminars and journal clubs, and the General Knowledge Examination will be completed. Students are urged to take full advantage of their rotation experience during the first year. Faculty mentors of rotation students are urged to present a realistic picture of the tone of the laboratory, the nature of the ongoing projects, how work is assigned or monitored, and any general history or policies with respect to meetings, publications/authorship, weekly journal clubs and laboratory meetings, and direct contact to be expected with the laboratory leader. A choice of dissertation advisor is usually, but not always, consonant with the MTA choice.

Following the end of the second semester in the Program, each PhD student should complete the Declaration Form. MD/PhD students complete this form following the fourth semester in the Program. At this time, the student should also select a three-member Advisory Committee whose members will be most helpful in the dissertation project. Advisory Committee members must be members of the Graduate Faculty. Two Advisory Committee members should be experts in the area of the student's research; a third member should be from a related field but need not be expert in the student's area of research. MD/PhD students are encouraged to add a clinical/translational (C/T) investigator, who need not be a member of the Graduate Faculty, to their Advisory Committee to provide feedback about the C/T impact of their research. This Form should be submitted to the Graduate School Office with all the required signatures as soon as possible, *but no later than June 30*.

One indication of satisfactory progress in the Program is the demonstration of the potential for research and the timely selection of a mentor and MTA. PhD students are expected to declare a

dissertation advisor and MTA **no later than** 12 months after matriculation. MD/PhD students are expected to declare by the end of the second year in the Program.

The choice of a dissertation advisor by the student and the acceptance of that student by the future dissertation advisor should be considered a commitment on the part of both parties that the student will remain with the chosen dissertation advisor until the thesis is completed. If a student is contemplating a change in dissertation advisor or MTA, or, if the dissertation advisor is unsatisfied with the academic progress of the student, mediation should be sought to remedy this situation by first meeting with the MTA Director and the student's Advisory Committee. If necessary, the Dean of the Graduate School may also meet with the student and their dissertation advisor. Movement between MTAs is permitted if the student is certified, in writing by the MTA Director(s), to be in good academic standing by the original MTA and is accepted, in writing, by the proposed MTA. Students who are contemplating a change must discuss this fully with the current dissertation advisor. These changes invariably involve some loss of time and dislocation to both student and dissertation advisor and possibly extra coursework. Careful guidance by the student's Advisory Committee will reduce the number of such changes and will increase the likelihood that those changes that do occur are productive. The student should also complete and submit a Change Form to the Graduate School Office.

Following are guidelines applicable only to students whose dissertation advisor relocates to another institution:

Students who have successfully completed their thesis proposal with a given dissertation advisor, who subsequently relocates to another institution, will be permitted to pursue their graduate research off-site at their mentor's new institution.

If the student has passed his/her thesis proposal exam, the student may wish to leave Mount Sinai to join his/her dissertation advisor at the new institution to continue his/her thesis research project. Under these circumstances, the student will continue to be a Mount Sinai matriculated student and will continue to receive student benefits (access to library, housing, health insurance). Any publications resulting from the student's research that was performed at Mount Sinai, before the student left the institution, should list Mount Sinai School of Medicine as the institutional affiliation of the student.

4.5 The Multidisciplinary Training Areas (MTA)

Cancer Biology (CAB)

Program Directors: James J. Manfredi, Ph.D. and Matthew O'Connell, Ph.D.

Steering Committee: Stuart Aaronson, M.D., Robert Krauss, Ph.D., Ihor Lemischka, Ph.D.,

Aneel Aggarwal, Ph.D.

This training program combines research in the biology of cancer with a curriculum that challenges trainees to consider how their research may be translated into improvements in the diagnosis and treatment of cancer.

Developmental and Stem Cell Biology (DSCB)

Margaret H. Baron, M.D./Ph.D. and Robert Krauss, Ph.D. Program Directors:

Steering Committee: Margaret H. Baron, M.D., Ph.D.; James Bieker, Ph.D.; Robert Krauss,

Ph.D.; Marek Mlodzik, Ph.D.; Kirsten Sadler-Edepli, Ph.D.; Philippe Soriano, Ph.D.

Developmental biology addresses a fundamental question: how do organisms develop from zygotes? As a discipline, developmental biology encompasses genetics, cell biology, physiology and evolution; as an area of current biomedical research, it provides insights into complex processes that, when disrupted, result in disease.

Genetics and Genomic Sciences (GGS)

Program Directors: Shaun Purcell, Ph.D. Andrew Sharp, Ph.D., and Peter Warburton, Ph.D. Steering Committee: George Diaz, M.D./Ph.D., Bruce D. Gelb, M.D., John Martignetti,

M.D./Ph.D., Ed Schuchman, Ph.D.; Robert J. Desnick, M.D., Ph.D.

This program offers students the opportunity to conduct research in the areas of genome organization and evolution, mechanisms of gene regulation, informatics and genome analysis, gene discovery and characterization, the molecular pathology of genetic diseases, and gene therapy. All organisms and genetic mechanisms are included.

Immunology (IMM)

Program Directors: Konstantina Alexandropolous, Ph.D. and Adrian Ting, Ph.D.

Steering Committee: Julie Blander, Ph.D., Peter Heeger, M.D., Miriam Merad, M.D/Ph.D.,

Thomas Moran, Ph.D., Karen Zier, Ph.D.

The goal of this training area is to provide students who are interested in immunology with a rigorous and flexible program. Students will be given the individual intellectual and technical skills required to become outstanding scientists in the field of immunology.

Microbiology (MIC)

Program Directors: Benjamin tenOever, Ph.D. and Ana Fernandez-Sesma, Ph.D.,

Steering Committee: Ana Fernandez-Sesma, Ph.D., Peter Palese, Ph.D.

This program provides research training in areas such as antivirals, autoimmune disease, bacterial genetics, environmental microbiology, gene therapy, immunology, molecular virology, oncogenesis (cellular/viral), nucleic acid technology, signal transduction and vaccine development.

Neuroscience (NEU)

Program Directors: Stephen R.J. Salton, M.D./Ph.D., and George Huntley, Ph.D.

Steering Committee: Patrizia Casaccia, M.D., Ph.D.; Deanna L. Benson, Ph.D.; Ehud Kaplan,

Ph.D.: Klaudiusz R. Weiss, Ph.D.

The goal of this graduate program is to provide a broad background in the field of neuroscience, from molecules to behavior, while allowing the student to focus on the research project in a specific area such as molecular neurobiology, neurochemistry, neuroendocrinology, neuroanatomy, and neurophysiology, among others.

Systems Biology of Disease and Therapy (SBDT)

Program Director: Jeanne Hirsch, Ph.D., and Eric Sobie, Ph.D.

Steering Committee: Francesco Ramirez, D.Sc., Jeanne Hirsch, Ph.D., Terry Krulwich, Ph.D.,

Ravi Iyengar, Ph.D.;

This program will train students in integrated approaches to a systems level of understanding the physiology and pathophysiology of human diseases and how key molecules and pathways can be targeted for therapeutic purposes.

Structural/Chemical Biology and Molecular Design (SMD)

Program Directors: Marta Filizola, Ph.D., and Iban Ubarretxena, Ph.D.

Steering Committee: Aneel Aggarwal, Ph.D.; Roman Osman, Ph.D.; E. Premkumar Reddy,

Ph.D.; Ming-Ming Zhou, Ph.D.

This program will provide an educational environment in which students receive training in structural and chemical biology with an eye towards the discovery and design of new compounds with the capacity to modulate the function of selected biological systems, e.g., the output of a signaling pathway or the cell-fate decision between survival and death.

4.6 Core Curricula

All PhD and MD/PhD students must complete a Core Curriculum. The Core Curriculum will vary depending on the training area and the specific PhD degree (Biomedical Sciences or Neuroscience). The Core Curriculum provides the students with a strong set of general concepts and vocabulary that underpins so much of cutting-edge biomedical research in their area of interest.

The majority of students in the PhD in Biomedical Sciences program will complete the Biomedical Sciences, a yearlong course that consists of six units. They are: (Fall: Enzymes and Metabolism; Genetics and Genomics and Gene Expression and Biological Chemistry); (Spring: Cell Biology; Development and Regeneration and Mechanisms of Disease). Some MTAs may require that students take the Core III course.

Some students may choose to enroll in the Systems Biology of Disease and Therapeutics (SBDT) training area Core course, instead of the standard Core course. Some training areas will accept the SBDT Core as a substitute for the standard Core. This will be decided on an individual basis and will depend on the student's prior course work. It is possible that some training areas will require that the student take all or part of the standard Core in their second year, if they took the SBDT Core in their first year. In such a case, the SBDT Core may be counted as elective credit.

Students in the PhD in Neuroscience program must complete the neuroscience core curriculum, which is comprised of Systems and Organizational Neurobiology (Fall), Cell and Molecular Neurobiology (Winter), and Neural Basis of Behavioral Plasticity and Cognitive Processes (Spring).

In exceptional cases, students who have had prior graduate level coursework relevant to a Core Curriculum may seek exemption from a core course. They should consult the course director(s)

who will administer an oral or written exemption examination, except in instances in which a strong record of prior graduate coursework has led to an advanced standing decision at the time of acceptance (see Transfer Credits).

Typical curricula for PhD students and MD/PhD students can be found in section 6.3.

4.7 Seminars and Journal Clubs

Seminars and journal clubs are central to the educational program. The opportunities to regularly encounter scientists and build critical analysis and presentation skills are of major importance. All students are required to participate in seminars and journal club activities during the entire duration of their Program.

First-year students will fulfill the journal club requirement with Introduction to Journal Club (fall and spring semesters) and will generally fulfill the seminar requirement with the Dean's Seminar (fall and spring semesters). They are encouraged to attend additional seminars and journal clubs in areas of their particular interest or in areas that they wish to explore.

Advanced students are expected to participate in the journal club and seminar activities of their MTAs and to participate in laboratory journal clubs and departmental seminars that are recommended by their dissertation advisor.

4.8 Teaching

There is no program-wide teaching requirement, but many students seek to take advantage of the opportunities to teach in a variety of modes and settings either because it enforces the mastery of core material, is intrinsically rewarding or because it is a major part of their career plans. Teaching opportunities include: teaching assistantships for the Core courses; teaching assistantships for additional Medical and Graduate School courses; one-on-one tutoring opportunities for graduate or medical courses; tutoring and special teaching programs at the Life Sciences Secondary School with which Mount Sinai has a special relationship; student mentorships in the RCR course; and student mentorships in the Introduction to Journal Club course.

4.9 Advancement to Candidacy

Students will automatically be advanced to candidacy after all the General Program Requirements, the Advanced Coursework for the MTA, the General Knowledge Examination and the Thesis Proposal Exam have been successfully completed. Students who leave the program after having successfully defended their thesis proposal are eligible for the Masters of Philosophy degree.

4.10 Program Progress Points

General PhD Program Requirements

The maximum time limit for the completion of all requirements for the PhD degree is seven years. PhD students must defend and deposit the dissertation by June 30 of the seventh year in the Program. Students who do not deposit by April 15 will participate in the graduation ceremony of the following year. All students must be full-time. All students are required to develop a research project, under the supervision of one or more faculty members, which results in a thesis that reports the new findings, and is presented, defended and deposited. All students must successfully complete all other degree requirements that are part of the training program. The choice of the research laboratory, through a series of laboratory rotations (BSR1006 and BSR1007) and academic credit for the thesis project (BSR8000 and BSR9000) are part of each student's academic program.

First Year

Satisfactory completion of the initial General Program Requirements (i.e., excluding advanced coursework and seminars) will be evaluated at the end of the first year in the Program:

General Program Requirements

Course	Comment
Biomedical Sciences	two semesters, for most students. Some MTAs require that their students take their Core III course following the two-semester Biomedical Sciences course.
Introduction to Journal Club I and II	Attendance and participation is mandatory for all sessions
Neuroscience	3 courses (Systems and Organizational Neurobiology, Cell and Molecular Neurobiology, and Neural Basis of Behavioral Plasticity & Cognitive Processes)
Systems Biology and Disease Therapeutics	Systems Biomedicine and two courses chosen from Quantitative Graduate Physiology, Pharmacology or Biomedical Modeling
Responsible Conduct of Research	Attendance and participation is mandatory for all sessions
Biostatistics	Exempted; or successful completion of BSR1010
Laboratory Rotation	At least two rotations must be successfully completed

Course	Comment
Meet the Authors	2 semesters

Core Curriculum

In order to successfully complete the Core Curriculum, the student must achieve an average grade of at least B (3.0) in the Core course(s). In computing this mean grade, each of the core course grades is given equal weight using the quality point values indicated below.

Quality Point Value
4.00
3.70
3.30
3.00
2.70
2.30
2.00
1.70
0.00

NB The GPA is computed to two decimal points and is <u>not</u> rounded off.

For those MTAs that require their students to take their Core III course, it will then be weighted equally with the Biomedical Sciences course to determine if the student has achieved the required B (3.0). Any student who fails to meet this requirement will be reviewed by the Graduate School's Promotion Committee.

4.11 Registration for the General Knowledge Exam, Thesis Proposal and Dissertation

Defense/Seminar

To schedule the General Knowledge Exam (or re-examination), Thesis Proposal (or re-examination), or the Dissertation Defense and Seminar, the dissertation advisor and the student should check the proposed date and time with the Examination Committee members before submitting the appropriate Registration Form to the Registrar's Office. The student needs to submit an official Registration Form, with the appropriate signatures, to the Graduate School for approval, at least 4 weeks before the scheduled dates of these Examinations. Failure to register in a timely manner may result in the cancellation of the Examination. If a student does not register for an Examination that is conducted, the Graduate School reserves the right to require a re-examination or to require a notarized statement from the student and the Examination Committee certifying the number of times the student has been examined. The Registrar's Office will forward the appropriate official Voting Form to the Chair of the Examination Committee. This Form has to be signed and returned immediately following the General Knowledge Examination (or re-examination), Thesis Proposal (or re-examination), or

Dissertation Defense to the Graduate School Office. If the Committee determines that a reexamination must occur, or that revisions must be made to the Thesis Proposal, the details, including a deadline within the allowable time, must be attached to the Voting Form. This information should also be communicated to the student, in writing. In the case of the Defense, if there are revisions to be made, the Graduate School Office will forward the appropriate Revisions Form to the Chair of the Committee.

NO EXTENSIONS WILL BE GRANTED EXCEPT UNDER EXTENUATING CIRCUMSTANCES. Requests for extensions of established Examination deadlines should be made at least 4 months prior to that deadline, students who fail to meet the Examinations deadlines will be placed on academic probation.

4.12 General Knowledge Exam

This exam satisfies the first part of the Preliminary Exam. The second part of the Preliminary Exam is comprised by the Thesis Proposal Exam (see below). Successful completion of both parts of the Preliminary Exam allows doctoral students to advance to candidacy for the PhD Degree at the Mount Sinai Graduate School of Biological Sciences. Advancement to candidacy means that students are able to totally focus their energy on their thesis work.

Objectives

The goal of the General Knowledge Exam (Part 1 of the Preliminary Exam) is to evaluate the background knowledge and reasoning skills of the student and determine whether or not the student is sufficiently advanced to proceed with the next phase of doctoral training.

Review Essay

Once a student has selected a dissertation advisor, a Multi-disciplinary Training Area (MTA), and an Advisory Committee, s/he will begin work on a project that will ultimately develop into a thesis project. The student should become familiar with the background literature for that project. Any MTA has the option to also assign a selection of recent articles from the literature with which the student should be familiar. These articles may be related to the student's field of study but may also cover different fields that represent the training area.

Within three months after selection of a dissertation advisor for PhD students, or within three months of starting the PhD phase of the MD/PhD program, the student (except those who are in the NEU MTA) should submit a 5-6-page essay on this background material. Examples of the type of acceptable essay include the Mini-reviews in Cell, or reviews in Trends or Current Opinion journals. The essay should include a synthesis of the literature and should identify and discuss major open questions in the field. NIH font specifications and margin requirements should be followed [Arial, Helvetica, Palatino Linotype or Georgia typeface and a font size of 11 points or larger; at least one-half inch margins (top, bottom, left, and right), single-spaced]. A smaller font size may be used for figures, graphs, diagrams, charts, tables, figure legends, footnotes, and references, but this type must follow the font typeface requirement and be readily legible. The essay should be the student's own work; the student's dissertation advisor may provide guidance and general comments.

The student should discuss the plans for their essay and the oral exam with the MTA Directors. Some MTAs may opt to waive the essay requirement.

The final essay should be submitted to the MTA Directors for further evaluation with a copy to the Graduate School Office and if the written essay is acceptable, the student will be notified. The Graduate School Office will schedule the oral exam within two weeks or at the first possible.

This essay will be used as a starting point for oral questions regarding general knowledge of the scientific issues and research area being pursued. At a minimum, the student should display excellent background knowledge and understanding of the scientific issues and key questions relevant to the area of research under consideration. Once such knowledge has been demonstrated, the student's breadth of understanding and ability to integrate knowledge gained in the first-year core curriculum can be further probed.

Oral Exam

The Oral exam must be completed no later than December 31st of the second year of graduate training for students in the Ph.D. program or December 31st of the third year of training for students in the M.D./Ph.D program. The MTA Director, who will serve as Chair of the oral exam committee, will assign two or more additional faculty members to the student's oral exam committee. Faculty may include members of the Student's Advisory Committee. Faculty members who have directly collaborated with the dissertation advisor, who have co-authored papers or abstracts with the student (except for rotation work that is unrelated to the current project), or who have been substantially involved in supervising the work, cannot serve on the Committee. Each MTA is encouraged to establish a core group of experienced examiners (5-10 or more) to maintain consistent guidelines and expectations for both exams. It is advisable to have junior faculty members observe a few exams before functioning as a member of the exam committee. The Chair for this exam will ensure that all guidelines are followed and that the level of the exam is similar to other such exams in the MTA.

The following policy pertains to the format of the Oral Exam:

The student's thesis adviser cannot be present during any portion of the General Knowledge Exam. Immediately prior to the exam, the committee will review the student's progress and academic standing; the student is not present during this discussion, however, all members of the examining committee should be present. Once this review is completed, the student will be called into the room and the examination will commence. The exam should not be confined to material from the core courses or the written document. It should probe the student's depth of fundamental scientific knowledge and assess his/her ability to extend that understanding to develop useful experimental approaches.

The general objective of the exam is to evaluate the background knowledge and reasoning skills of the student and determine whether or not the student is sufficiently advanced to proceed with the next phase of doctoral training. Particular deficiencies in fundamental background concepts due to lack of appropriate course work should be assessed, so that the student is clear on which advanced courses s/he should pursue to fill gaps in his/her knowledge.

Once the committee is finished asking questions, the student will be asked to leave the room. The committee then decides if the student has successfully passed his/her Oral Exam, or, if there are clear problems, whether the Oral Exam should be retaken. The student will only be permitted one retake of the Oral Exam, within two months of the first exam.

Within 24 hours of the exam (or as soon thereafter as possible), the Chair of the examination committee will meet with the student's mentor to provide a detailed summary of the student's performance. It is critical for the mentoring process that the mentor be fully informed about this.

All committee members should sign the Graduate School evaluation form immediately after the conclusion of the Oral Exam. The signed form must be returned to the Registrar.

4.13 Thesis Proposal

Content

The Thesis Proposal consists of the presentation, written and oral, of a research proposal that is based on the thesis work already begun by the candidate.

A research proposal

- Is based on the student's own work, not that of the dissertation advisor
- Should allow the student to organize his/her thoughts and plans and place them in
- perspective
- Should allow the dissertation advisor and the student's Advisory Committee to assess the level of scientific sophistication of the student
- Should provide both the student and the Committee a measure against which to determine subsequent progress.

The Committee should evaluate the student's ability to:

- evaluate and synthesize relevant literature
- articulate and elaborate on the aims
- show and evaluate preliminary data
- discuss experimental design as it applies to work planned.

The Written Document

The outline below follows that of the Research Plan sections of a predoctoral fellowship proposal. Students are strongly encouraged to look at samples of successfully funded NIH fellowship proposals that are available in the Graduate School Office. The Thesis Proposal must be submitted to the Thesis Proposal Review Committee at least two weeks in advance of the Oral Presentation.

Formatting Instructions

Font: Use an Arial, Helvetica, Palatino Linotype, or Georgia typeface, a black font color, and a font size of 11 points or larger. (A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies.) Type may be no more than six lines per inch. Page Margins: Use standard paper size (8 ½" x 11). Use at least one-half inch margins (top,

bottom, left, and right) for all pages.

Figures, Graphs, Diagrams, Charts, Tables, Figure Legends, and Footnotes: You may use a smaller type size but it must be in a black font color, readily legible, and follow the font typeface requirement. Color can be used in figures; however, all text must be in a black font color, clear and legible.

Research Plan

The following four sections comprise the Research Plan. The Research Plan should not exceed 10 pages. The indicated number of pages for each section is a guideline only. Specific Aims (1 page): Describe the hypothesis(es) you are testing. What are your research objectives? What conclusions could be made from your findings? Be concise, clear and logical. Provide an approximate timetable for accomplishing these aims. Your aims are the test of your hypothesis

Background/Significance (2 pages): Provide a critical review (Evaluate! Don't just cite) of the most pertinent work which raised the question you are answering, spawned the idea for your plans, made your approach feasible, etc. Critically evaluate what others have done. How does your dissertation relate to other problems or areas of biomedical sciences and/or contemporary biology? Identify those concerns. Explain how your hypothesis and planned accomplishment fit. This is an opportunity to relate your plans to the ongoing tradition in science and explain why your work is important.

Preliminary Studies (2 pages): Describe what you have already accomplished. Where appropriate, provide data, even if preliminary. You do not need an enormous amount of preliminary data; it is far better to take this Examination near the beginning of the project. Explain how these results fit in with your plans.

Research Design and Methods (5 pages): Describe the primary techniques you will use. Critique them - exactly what will they show? With how much assurance? How will you evaluate them? What kinds of artifacts have been observed or could be expected? Are the methods adequate to test your hypothesis(es)? Can other procedures be applied to achieve the same goals? Why are yours better?

The Oral Presentation

Since the Committee members will have read the written document before this presentation, the student should use this opportunity to give a brief summary of the particulars of the research and the proposal. This presentation should not be a reiteration of the written proposal and should be limited to 20 minutes, a time limit that should be enforced by the Chair of the Committee. Prior to the presentation, the student should discuss, with the Chair of the Committee, whether s/he would prefer uninterrupted presentation vs. one in which questions will be asked as they arise during the presentation. Of course, if the latter is chosen, the 20-minute time limit does not apply. If the former format is chosen, there will be a questioning period following the presentation.

In either case, the student should be able to answer questions about the specifics of the proposal

as well as general knowledge of the field as related to the proposal. The student should be able to defend the rationale for the particular approach(es) being used and explain how this will answer the questions being asked. Potential problems should also be anticipated with alternative approaches that could be used. Students will not be expected to defend these alternatives in great detail.

NB

- The proposal should be written by the student, not the dissertation advisor. It is the role of the dissertation advisor to guide the student in preparing a coherent, intelligible document to be distributed to the members of the Thesis Proposal Committee. However, the dissertation advisor should also ensure, to the best of her/his ability, that the proposal is an original document and that the language of the proposal is that of the student. Ultimately, it is the responsibility of the student to provide an acceptable document.
- The whole proposal should be in the best traditions of scholarship, e.g., identify sources, balance your presentation by including conflicting data and counter arguments, etc. The proposal should convince the Committee that the dissertation project is reasonably important and practicable.
- A student should not present tables that are not entirely his/her own work, unless this is unavoidable because the data are necessary to develop the story. In that case, the precise contribution of the student must be made clear.
- Detailed methods should not be presented for work not actually conducted by the student, including work done by the Core Facilities or other colleagues; such presentations convey the impression that the student actually carried out the procedures.

The Committee

The Thesis Proposal Committee is composed of at least 3 members, in addition to the Chair of the Committee (see below). Members of the student's Advisory Committee serve on the Thesis Proposal Committee and may appoint additional Committee members, subject to the approval of the MTA Directorship and the Dean. Committee members should represent a breadth of scientific interests related to the students' specific area of study. Faculty members who have directly collaborated on the project, who have co-authored papers or abstracts with the student (except for rotation work that is unrelated to the current project), or who have been substantially involved in supervising the work, cannot serve on the Committee. The mentor of the candidate cannot be a member of the Committee (see below).

The Chair of the Committee shall be one of the Co-Directors of the candidate's Multidisciplinary Training Area, or an appointed designee who is a senior faculty member of that MTA. The Chair of the Committee must enforce all rules of the Examination, including those pertaining to the role of the dissertation advisor, as outlined below.

The student's thesis adviser may be present during the questioning phase of the Thesis Proposal Defense; however, the adviser MUST remain silent during the question period. Committee members must not direct questions to the dissertation advisor, and s/he must not answer questions directed to the student.

Students are encouraged to look at samples of recent Thesis Proposals that are available in the Graduate School Office or from the MTA Directorship, before preparation is initiated. In addition, each student is strongly encouraged to discuss the expectations of the MTA Co-Directors as they develop their Thesis Proposal. When the student has written the Thesis Proposal, it should be submitted to each member of the Committee at least ten days before the scheduled presentation. Committee members may reschedule the Examination if not given the appropriate amount of time to prepare. The Chair of the Committee should poll the Committee members prior to the presentation to determine if there are major concerns with the written proposal that would warrant a postponement of the presentation. In the event of a postponement, the Graduate School must receive written notification from the Chair of the Committee of the postponement at least two days prior to the scheduled presentation, with a new scheduled date. A presentation will be recorded as "Unsatisfactory" if the Graduate School does not receive this notification in time (see further details under 'deadline' section).

As with the General Knowledge Exam, the thesis adviser should give a summary of the student's progress at the beginning. All committee members should be present for this summary, and the student should not be present. Following the question period, the student and thesis adviser should leave the room to allow the committee to discuss the exam results and vote in their absence. Following the discussion phase, the student should re-enter the exam room WITHOUT the adviser for a private conversation with the committee. The student will then be asked to leave and the advisor will be invited to have a private conversation with the committee as well. Finally, the student and advisor will meet with the committee together for a discussion of the student's performance and the Chair of the Committee will discuss the Committee's decision at that time. If the Committee determines further work necessary, the Chair will provide this information, in writing, to the student. A copy of this memo, detailing conditions and deadline, must accompany the Voting Form, which should be returned to the Graduate School Office within two days of the proposal presentation. The Chair of the Committee will report the discussion to the dissertation advisor.

It is possible for a Committee to consider a student's performance satisfactory for the oral presentation of the work achieved and work planned, but still consider the written proposal to be inadequate (in detail, style, citation quality, figure/table/legend presentation, etc.). The student may only be permitted one re-take the oral presentation, but the Committee may ask for as many revisions of the written proposal as are necessary to achieve a satisfactory proposal. This process can occur under the supervision of a subcommittee and must be completed before the student can be advanced to Candidacy.

Deadline

All PhD students must complete the Thesis Proposal by the end of their fifth semester in the Program. MD/PhD students must present the Thesis Proposal by the end of the seventh semester in the Program. Students may request an extension under special circumstances by submitting

the appropriate form to the Dean of the Graduate School prior to the deadline for successful completion of the Thesis Proposal. Failure to meet this timetable can result in loss of standing in the Program.

The student whose Thesis Proposal is deemed unsatisfactory will usually be given one opportunity to address the particular area(s) of weakness. The conditions and timing for a representation must be established at the time of the initial presentation. However, it must occur within 4 months of the initial presentation. The information concerning a re-presentation should be communicated to the student and the Graduate School Office, in writing, within two days of the initial presentation. If the student (with support of the mentor) wishes to change the membership of the Re-Examination Committee from that of the Examination Committee, s/he should discuss this with the MTA co-directors and/or the Dean of the Graduate School, prior to registration for the Re-Examination. In rare instances, the Committee may refuse the student the opportunity to redress the Proposal -- such instances will involve students who have failed to show sufficient research progress and ability.

4.14 Dissertation

Content

Copies of earlier successfully completed Program Dissertations are available for review in the Levy Library. Guidelines for the dissertation deposit can be found on Graduate School Forms website.

A student should not present tables or figures that are not entirely his/her own work unless this is unavoidable because the data are necessary to develop the story; in that case the precise contribution of the student must be made clear. Detailed methods should not be presented for work not actually conducted by the student, including work done by the Core Facilities or other colleagues; such presentations convey the impression that the student actually carried out the procedures.

Students who wish to use published manuscripts as the backbone of their dissertation text ("compilation format") may do so under the following circumstances:

- a general introduction, literature review, and summary are written for the dissertation
- permission to use the published paper as a dissertation chapter is obtained from the relevant publisher
- the publication represents both the scientific work and writing of the student
- the student must be the first author on papers used. Thus, no two students may use the same publication, and it is expected that both dissertation advisor and student will be honorable in renouncing this format when contributions by multiple co-authors make the specific contribution of the student unclear. A Committee might challenge a dissertation on this basis.

- multi-author publications must be accompanied by a precise list of all work not actually
 performed by the student. Even better, those experiments not conducted by the student
 should be edited out of the dissertation chapter and just cited
- the student must have had a major role in writing the manuscripts (this should be certified by the dissertation advisor). If the student did not do the earlier writing, the work should be rewritten by the student for the dissertation.

If a published paper is used in the dissertation, copyright approval must be secured from the Journal. A note should be made on the paper indicating that copyright approval was granted. A paper that has been submitted, but not yet accepted, can be used. But a note should be made on the paper that it was used in a dissertation as partial requirement for the fulfillment of the PhD degree.

The thesis must contain a Statement of Authorship page which is available on the forms website.

The Committee

The Dissertation Committee is composed of five members, including the mentor, who must be a silent observer during the Defense by the student. There must be four voting members on the Committee. Two members will be experts in the field of the student's work but they cannot be collaborators of the mentor. One member should be from outside the field of the project. One additional reviewer, who shall not be a faculty member of Mount Sinai School of Medicine, will be appointed. This "outside" examiner may not have been an active collaborator in the student's work. Additional faculty, such as collaborators of the mentor, may be included as non-voting members on the committee Non-voting Committee members, including faculty from Mount Sinai, are those who have

- directly collaborated on the project
- co-authored papers or abstracts with the student (except for rotation work that is unrelated to the dissertation project)
- been substantially involved in supervising the work.

If the student has two dissertation co-advisors, both may be present and both must be silent observers during the Defense. In this case, the Committee must consist of four additional members.

The Training Area directorship and the Graduate School Dean must approve the Committee roster, and the former will appoint a senior member of the Committee, other than the dissertation advisor, to serve as Chair of the Committee. The Dean will invite the outside examiner to sit on the Dissertation Committee and will outline the duties of the reviewers and of the Committee.

When the student has completed the written dissertation document, it must be read and approved by the Dissertation Committee. The student should submit the Dissertation to each member of the Committee as early as possible, but no later than two weeks before the Defense. Committee members may reschedule the Examination if not given the appropriate amount of time to prepare

for it. The Committee shall meet with the student for an oral Defense of the Dissertation. Before the final scheduling of the Defense, it is wise to solicit the approval of the Committee vis-a-vis their sense that the work is complete and appropriately presented. The student must register for the defense with the Registrar and the Dissertation Defense and Seminar Registration form along with the Voting form may be obtained from the Graduate School office. The student must include with the written document the Statement of Authorship page.

Students and dissertation advisors should have been made aware that revisions and even additional experimental work might be requested by the Dissertation Committee. In either event, the Committee should decide and indicate in writing whether the whole Committee needs to be reconvened to consider the new draft or whether a subcommittee (or just the chair of the Committee) may approve the revised draft.

The mentor may apply to the Graduate School for reimbursement (up to \$450) to defray travel expenses for the "outside" examiner. A letter of request, from the dissertation advisor, for the honorarium should be submitted to the Graduate School Office. The letter should include the name of the examiner, his/her social security number and mailing address. If the funds are being used to defray the cost of travel, original receipts should be sent with the letter of request. We will prepare and submit the check request. Unless otherwise instructed, the check will be sent directly to the examiner. If the dissertation advisor/department is covering a portion of the travel expenses, the letter of request should be sent with a check request (and original receipts), prepared by the dissertation advisor/department, indicating the amount and fund number (with appropriate signature) for the portion covered by the dissertation advisor/department. The Graduate School will complete the request and forward it to Accounts Payable. Unless otherwise instructed, the check will be sent directly to the examiner.

The Defense and Seminar

In addition to the closed session for the oral Defense, all students must present a 45-60 minute seminar on his/her work, open to the Mount Sinai scientific community. It is the student's and dissertation advisor's responsibility to appropriately announce the seminar to the "public", e.g., via email, at least four weeks prior to the seminar. Seminars may only be scheduled on days and times designated by the Graduate School. If the seminar is presented before the oral defense, the examiners should be invited to the seminar, but should be asked to refrain from asking questions, except those that will lead to making the seminar more interactive with the rest of the audience. More intensive questions will be asked in the actual private defense. Note: It is the student's responsibility to check with the particular MTA for the scheduling format of the Defense and Seminar.

Dissertation Deposit

Students should read the Doctoral Thesis Deposit Instructions which can be found on the Graduate School Forms website.

Once a student has successfully defended the dissertation, made all relevant revisions, and is ready to deposit the Dissertation, s/he should deposit the dissertation electronically according to the instructions in Doctoral Thesis Deposit Instructions document, available from the Library or on the web. Students should submit the <u>Dissertation Defense – Student Checkout</u> form before

depositing the dissertation. Failure to do this can result in a delay of the student's graduation.

Students who leave the programs with an MPhil degree are not required to deposit their thesis with the Levy Library.

The dissertation may be deposited at any time during the year, but the following deposit deadlines and enrollment requirements determine the date of the degree.

For the degree to be awarded:	You must deposit by:	And be enrolled during the:
September 30	September 15	Preceding Spring semester
January 31	January 15	Preceding Fall semester
May (MSSM graduation date)	April 15	Current spring semester

The degree is awarded on September 30, January 31, or the date of Mount Sinai School of Medicine's annual Commencement in May. Students depositing by the January or April deadline will receive their diploma at Commencement. Students depositing by the September deadline, may, at the discretion of the Dean of the Graduate School, participate in the prior May Commencement exercise, but will not receive their diploma until after September.

By March 1, students must notify the Registrar of their intent to deposit their thesis on or before the April or September deposit deadlines in order to be included in the Commencement exercises of that year. Commencement information will be sent during the spring semester to the student's last email address recorded with the Graduate School Office.

Those students who have a dissertation or thesis defense scheduled between April 16th and June 15th MAY be eligible to participate in the spring Commencement ceremony even though they have not met the April 15th thesis/dissertation deposit deadline. In cases where a student is allowed to participate, he/she will not receive a diploma at graduation. After a successful defense, a diploma will be awarded on the next date that degrees are conferred (September 30th, of January 31). Only students in good academic standing will be offered this courtesy. In this case, good academic standing means that all coursework has been completed with passing grades and the student's mentor/committee fully expect the student will successfully defend his/her thesis/dissertation prior to June 15th. If either of these criteria is not met, the student will not be allowed to participate in the spring graduation ceremony. Additionally, any student whose written document or oral defense was not acceptable to their committee will not be allowed to participate in Commencement until after successfully defending and depositing.

If a student fails to deposit their thesis by the end of their seventh year in the PhD program (6th

PhD year for MD/PhD students), their dissertation advisor must petition the Dean of the Graduate School in writing for permission to extend their student status. The petition must include a timetable for completing the dissertation and must also be signed by the student.

It is the dissertation advisor's responsibility to inform the Graduate School Office, in a timely manner, the expected date that financial support will be terminated.

PhD students can maintain student status, with the stipend and health benefits covered by the dissertation advisor, after the defense, according to the following timetable:

Defense result	Student status can be maintained up to
No revisions	5 weeks
Minor revisions	5 weeks
Major revisions	8 weeks

Exceptions to this schedule will only be considered under extenuating circumstances. The dissertation advisor must request this in writing to the Dean of the Graduate School.

4.15 Program Alumni

Mount Sinai is proud of its alumni. Most of the students who complete the PhD program pursue a postdoctoral research-training period before entering a more permanent position and most of the MD/PhD graduates complete a residency and/or fellowship. The faculty of the program actively assists and guides the students in identifying an optimal position.

After the immediate postdoctoral work, our graduates have gone on to a gratifying array of research positions in academic, medical, and industrial settings. Alumni of Mount Sinai's Graduate School, both PhD and MD/PhD, hold faculty positions at colleges and universities around the country, including Barnard, City University of New York, Columbia, Cornell Med, Duke, Einstein, Harvard, McGill U, Med Coll Virginia, Mount Sinai, NY Med Coll, NYU, NYU Med, N Texas State, Northwestern, Ponce Sch Med (Puerto Rico), Rutgers, St. Joseph Coll, SUNY Upstate, Tuskegee Institute, UC Davis, UCLA, U Colorado Med Ctr, U Conn, U Indiana, U Mass, UMDNJ, U Minnesota, U North Carolina, U Penn, U Pittsburgh, U Texas, U Washington, Williams, and Yale. Several of our alumni are working in distinguished research institutes such as the National Institutes of Health and Fox Chase. Our alumni are similarly well-represented in research laboratories of major pharmaceutical and other industrial firms, such as Advanced Tissue Sciences, Alliance Pharm, Amgen, Astra, Bristol-Myers Squibb, Dupont-Merck, Eli Lilly, Enzon, Inc., Genetix Pharm, Hewlett-Packard, Immunomedia, Incstar, Metpath, Novartis, Oncogene Science Inc., OrthoBiotech, OrthoLogic, Otsuka-America Pharm, Proctor & Gamble, Schering-Plough, Sephcor, Smith-Kline Beecham Pharm, Trophix Pharm and Wyeth-Lederle. In addition, Mount Sinai graduates have gravitated towards science writing, patent law, business aspects of science, and public policy areas. Some of the students who complete the PhD program at Mount Sinai find that their interests have become clinically oriented. For such students the natural next step is sometimes medical school. A number of our PhD alumni have accordingly gone on to excellent medical schools, including Mount Sinai School of Medicine, ultimately pursuing careers in academic medicine.

The Graduate School maintains a close relationship with its graduates. Periodically, alumni return to participate in teaching or seminar activities. They join us during site visits and retreats and report on their activities with enjoyable regularity. The Graduate School alumni are invited to join the Associated Alumni of the Mount Sinai Medical Center, and they receive a quarterly bulletin that includes alumni and institutional news. Mount Sinai's Graduate School alumni helped establish an emergency fund to help current students in the event of an emergency financial need. They have also been helpful in bringing job opportunities at their current institutions to the attention of our students and more recent graduates.

The Graduate School has developed an online alumni database for its PhD and MD/PhD graduates. Alumni can view their information and update it as often as it is needed.

Alumni Association Membership

The Mount Sinai Alumni encompasses graduates of Mount Sinai School of Medicine and the Graduate School of Biological Sciences, former interns, residents and fellows, as well as past and active members of the basic science and clinical faculty. The association is dedicated to promoting enduring relationships among members, furthering Mount Sinai's educational and

charitable endeavors, and promoting scholarship for students and physicians-in-training. Senior students will be asked to enroll in the association upon graduation, and will receive all benefits of membership, but will not be expected to become dues-paying members of the Alumni Association until postgraduate training is completed. The Student Council selects a member to serve as student liaison to the Alumni Executive Board; however, student input and participation in alumni-sponsored programs and activities is always encouraged. The Alumni Office is located in the plaza of the Annenberg Building. Students are welcome to visit the office at any time to speak with staff.

B. Master's Degree in Biomedical Sciences

4.16 Curriculum

Required course work

Core Curriculum

All students must complete a core curriculum. The core courses that can be used to satisfy this core curriculum are the following:

Fall Semester (4-6 credits) (one of the following courses):

Biomedical Sciences (5 credits) + Introduction to Journal Club I (1 credit)

Systems Biomedicine (6 credits)

Systems and Organizational Neurobiology (4 credits)

Spring Semester (at least 6 credits):

Biomedical Sciences (5 credits) + Introduction to Journal Club II (1 credit)

Or, 2 courses chosen from the following:

Winter term (or Spring1):

Quantitative Graduate Physiology (3 credits)

Systems Pharmacology (3 credits)

Cellular and Molecular Neurobiology) (3 credits)

Spring term (or Spring2):

Neural Basis of Behavioral Plasticity and Cognitive Processes (3 credits)

Systems Biology: Biomedical Modeling (3 credits)

Other Required First-year Courses:

Biostatistics (3 credits) (fall semester)

Responsible Conduct of Research (1 credit) (fall semester)

Meet the Authors – full year (1 credit fall, 1 credit spring)

Elective course work

Elective credits may be satisfied with:

• courses from any of the PhD multi-disciplinary training areas, including seminars and journal clubs

- courses from MD program, subject to space availability and by permission of the MS in Biomedical Sciences Program Director. All medical school courses are graded P/F.
- up to 3 credits from the MPH or MS in Clinical Research by permission of the relevant course directors. If a student wishes to take more than 3 credits from other Master's program course offerings, additional tuition will be billed to the student at that program's tuition rate.

Thesis credit

Three credits will be given for the MS Thesis in Biomedical Sciences in the final semester of the program. Students must register for thesis credit in the semester in which they wish to deposit their thesis.

Research credits

Students should sign up for Independent Biomedical Sciences Master's Research. The following number of credits will be given:

first fall semester (August-December) – 4 credits first spring semester (January-June) – 4 credits second fall semester (July-December, includes summer) – 8 credits

Students should select a thesis advisor for their research by October 1 of the first semester. Master's students do not do laboratory rotations. The student should discuss with their thesis advisor the expectations and goals for the research project. The Masters in Biomedical Sciences Research Agreement form should be filled out, signed by both the faculty member and the student, and returned to the Graduate School Office. If the student realizes that the selected laboratory is not a good match between the student and the thesis advisor, a switch to another laboratory should be discussed with the Program Director.

Master's students should prepare a brief PowerPoint talk on their research to be presented at either the March or June Laboratory Rotation Presentations mini-symposium.

At the end of the first year, students should fill out the <u>Masters in Biomedical Sciences</u> <u>Laboratory Research Evaluation</u> form with their thesis advisor and return it by July 1 to the Graduate School Office. This form determines the grade for research credits in the first year.

Credits, GPA

MS in Biomedical Science students must complete a minimum of 45 graduate credits and must achieve a GPA of at least a 3.0.

4.17 Guidelines for Preparation of the Master's Thesis in Biomedical Sciences

The Master's Thesis should be based on the student's own work and should, in addition to describing the student's research project, provide a critical review of the literature. The description of the research should be organized in sections similar to those in a journal article.

The Written Document

With these purposes in mind the following structure and guidelines are suggested.

Title

Acknowledgements

Abstract: Should be 150 words or less

Introduction (5-10 pages): Provide a critical review (Evaluate! Don't just cite) of the most pertinent work which raised the question you are answering, spawned the idea for your plans, made your approach feasible, etc. Critically evaluate what others have done. How does your dissertation relate to other problems or areas of biomedical sciences and/or contemporary biology? What question will you be addressing?

Methods (5-10 pages): Describe the primary techniques you have used. Do not repeat details of published methods.

Results (5-10 pages): Describe what you have accomplished, accompanied by appropriate figures and tables.

Discussion (5-10 pages): Examine your results, explain their significance and answer the question you posed in the Introduction. The Discussion section may be combined with the Results.

Conclusion/Summary (2-5 pages): Summarize and state the significance of your results.

References: In the text, cite all references in the name-and-year system (e.g. Strong and Jones, 1991). The reference list should be arranged alphabetically by the last name of the first author in a standard format with titles. The student should consult standard reference publications for appropriate citation styles.

NB

The thesis should be written by the student, not the thesis advisor. It is the role of the thesis advisor to guide the student in preparing a coherent, intelligible document to be distributed to the members of the Committee. However, the thesis advisor should also ensure, to the best of her/his ability, that the proposal is an original document and that the language of the proposal is that of the student. Ultimately, it is the responsibility of the student to provide an acceptable document.

The thesis should be in the best traditions of scholarship, e.g., identify sources, balance your presentation by including conflicting data and counter arguments, etc. and practicable. A student should not present tables that are not entirely his/her own work, unless this is unavoidable because the data are necessary to develop the story. In that case, the precise contribution of the student must be made clear.

Detailed methods should not be presented for work not actually conducted by the student, including work done by the Core Facilities or other colleagues; such presentations convey the impression that the student actually carried out the procedures.

Students who wish to use published manuscripts as the backbone of their thesis text may do so under the following circumstances:

- 1. A general introduction, literature review, and summary are written for the thesis permission to use the published paper as part of the thesis is obtained from the relevant publisher the publication represents both the scientific work and writing of the student the student must be the first author on papers used.
- 2. Multi-author publications must be accompanied by a precise list of all work not actually performed by the student. Even better, those experiments not conducted by the student should be edited out of the dissertation chapter and just cited the student must have had a major role in writing the manuscripts (this should be certified by the thesis advisor). If the student did not do the earlier writing, the work should be rewritten by the student for the thesis.
- 3. If a published paper is used in the thesis, copyright approval must be secured from the Journal. A note should be made in the thesis indicating that copyright approval was granted. A paper that has been submitted, but not yet accepted, can be used. But a note should be made on the paper that it was used in a Master's thesis as partial requirement for the fulfillment of the MS degree.
- 4. The thesis text should be double-spaced. Because your thesis will be deposited and copyrighted through UMI Dissertation Publishing, please refer to more detailed formatting instructions in "Depositing Your Master's Thesis" which is part of the Master's Thesis Deposit packet, available from the Registrar. You are required to purchase one hardcover copy of your thesis for the Levy Library. One copy will be kept in the Graduate School Office. You may order additional bound copies at your own expense.

The Oral Presentation/Defense

When the student is ready to defend their thesis, the <u>MS Thesis Defense Registration</u> form must be filled out and returned to the Graduate School Office. The student should bring the <u>MS Thesis Approval</u> form to the oral presentation/defense.

Since the Master's Thesis Review Committee members will have read the written document before this presentation, the student should use this opportunity to give a brief summary of the particulars of the research and the proposal. This presentation should be limited to 10-15 minutes. Prior to the presentation, the student should discuss, with the Chair of the Committee, whether s/he would prefer uninterrupted presentation vs. one in which questions will be asked as they arise during the presentation. Of course, if the latter is chosen, the 10-15 minute time limit does not apply. If the former format is chosen, there will be a questioning period following the presentation.

The student should be able to defend the rationale for the particular approach(es) being used and explain how this will answer the questions being asked. Potential problems should also be anticipated with alternative approaches that could be used. Students will not be expected to defend these alternatives in great detail.

The Master's Thesis Review Committee

The Master's Thesis Review Committee is composed of at least 3 members. The student's thesis advisor will chair the committee. Other members of the Committee should include faculty knowledgeable in the field of the thesis research. One member should have an appointment outside the thesis advisor's Department and the other member may be from the thesis advisor's Department. These three members, as well as any additional members the student and his/her thesis advisor may want to add, will be appointed by the Program Director.

The Master's Thesis should be submitted to each member of the Committee at least ten days before the scheduled oral presentation.

The Committee should evaluate the student's ability to:

- evaluate and synthesize relevant literature
- defend the methods used
- articulate and elaborate on the experiments described
- discuss the significance of the work and potential future research directions
- justify your conclusions

Revisions recommended by the Committee must be completed in a timely fashion. The student's thesis advisor should approve the revised thesis before it is deposited. The student should make note of the deadlines described below for final deposit of the thesis and dates that the MS degree will be awarded. The thesis must be deposited by the end of the semester in which the thesis defense takes place. The student will maintain student status until the thesis is deposited.

Deadlines

The thesis may be deposited at any time during the year, but the following deposit deadlines determine the date of the degree.

For the degree to be awarded:	You must deposit by:
September 30	September 15
January 31	January 15
May (MSSM graduation date)	April 15

The degree is awarded on September 30, January 31, or the date of Mount Sinai School of Medicine's annual Commencement in May. Students depositing by the January or April deadline will receive their diploma at Commencement. Students depositing by the September deadline,

may, at the discretion of the Dean of the Graduate School, participate in the prior May Commencement exercise, but will not receive their diploma until after September.

By March 1, students must notify the Registrar of their intent to deposit their thesis on or before the April or September deposit deadlines in order to be included in the Commencement exercises of that year. Commencement information will be sent during the spring semester to the student's last email address recorded with the Graduate School Office.

Those students who have a dissertation or thesis defense scheduled between April 16th and June 15th MAY be eligible to participate in the spring Commencement ceremony even though they have not met the April 15th thesis/dissertation deposit deadline. In cases where a student is allowed to participate, he/she will not receive a diploma at graduation. After a successful defense, a diploma will be awarded on the next date that degrees are conferred (September 30th, of January 31). Only students in good academic standing will be offered this courtesy. In this case, good academic standing means that all coursework has been completed with passing grades and the student's mentor/committee fully expect the student will successfully defend his/her thesis/dissertation prior to June 15th. If either of these criteria is not met, the student will not be allowed to participate in the spring graduation ceremony. Additionally, any student whose written document or oral defense was not acceptable to their committee will not be allowed to participate in Commencement until after successfully defending and depositing.

Instructions for preparing the MS thesis deposit can be found in MS Thesis Deposit Instructions on the Graduate School Forms website. When the student is ready to deposit the Master's Thesis, s/he should deposit the thesis electronically according to the instructions in the Deposit Instructions document within three calendar years of the date of initial matriculation in the Graduate School. After depositing the thesis, the student can request an interim confirmation testifying to the completion of the degree requirements.

4.18 Master's to PhD

Master in Biomedical Sciences students may seek entry into the PhD in Biomedical Sciences program or the PhD in Neuroscience program.

Master's students seeking entry into one of the Ph.D. programs must complete all the requirements for admission, including a new application and personal statement that explains the reason for undertaking pursuit of the Ph.D. degree. The application deadline is January 1, for entry in the following fall semester. Official transcripts and test scores previously submitted to the Graduate School may be used in support of the new application, but must be supplemented by official transcripts for any academic course work taken since entering the Graduate School. Two new letters of recommendation must be submitted. Students who wish to continue their research in the same laboratory as their Master's research, must include a letter of recommendation from their thesis advisor stating that s/he is willing to have the student join his/her lab for PhD dissertation research. However, students must rotate in at least one other laboratory before starting their dissertation research in their MS thesis advisor's laboratory.

Most or all of the credits earned in pursuit of the M.S. degree can also be applied towards Ph.D. degree requirements, so students who begin their studies in a Master's program can later complete a Ph.D. program with minimal loss of time.

If the student wishes to complete and receive the Master's degree before starting the Ph.D. program, this request must be made in writing at the time of the application to enter the Ph.D. degree program. This request will be granted only if the student has substantially completed the requirements for the Master's degree and plans to deposit his/her Master's thesis by April 15. In practical terms, this means that the student should need only to complete fewer than six additional credits, including the Master's Thesis, during the spring semester before entry into the PhD program.

C. Master's Degree in Genetic Counseling

4.19 General Program Requirements

The core curriculum of the Master of Science in Genetic Counseling is provided by the faculty of the Department of Genetics and Genomic Sciences, the Graduate School of Biological Sciences, including the Master of Public Health and Clinical Research programs, and the School of Medicine. Courses include:

Human Embryology (Msn 516) (1st year - Fall)

Molecules And Cells (Msn 507) (1st year - Fall)

Biostatics (Epb 500) (1st year - Fall)

Ethical Issue Clinical Research (Clr 510) (1st year - Fall)

Topics In Genetic Counseling I,II,III (Gc 300,305,310) (1st and 2nd year)

Introduction To The Ethical Responsibility Of Genetic Counselors (Gc 325) (1st year - Fall)

Introduction To Interviewing And Counseling Methodology (Gc 315) (1st year - Winter)

Bioethics: Policies And Cases (Gc 600) (1st year - spring)

Medical Genetics (Gc 360) (1st year - spring)

Culture, Illness and Community Health (Bes 612) (1st year - spring)

Advanced Topics in Human Genetics (G 635) (1st year - spring)

Impact of Illness on Patients and Families (Gc 615) (2nd year - fall)

The program begins the third week in August. All courses are not concurrent. Students are expected to be in residence throughout the summer except as designated by the Program Director.

Major emphasis is placed on clinical rotations; students are required to rotate through a variety of clinical settings from prenatal to pediatric to adult genetics. These rotations provide opportunities for extensive supervised experience in history taking, interviewing, psychosocial assessment, and genetic risk assessment.

As a requirement for graduation, candidates for the Master of Science in Genetic Counseling must complete an in-depth study of a selected genetic counseling issue or topic. Students are strongly encouraged to study topics appropriate for national presentation and/or publication.

Upon successful completion of their studies, candidates receive the Master of Science in Genetic Counseling from Mount Sinai School of Medicine. Graduates are eligible to apply for the American Board of Genetic Counseling Certification examination.

4.20 Credits, GPA

MS in Genetic Counseling students must complete a minimum of 60 graduate credits with at least a 3.0 GPA in the Core Curriculum.

5. Graduate School Courses

5.1 Graduate School Course Listing

There follows a representation of the graduate courses given at Mount Sinai. Many courses are given each year, and some more specialized courses are given every other year. Additionally, some courses require a minimum enrollment to run. A number of the advanced courses are offered in a modular format. This optimizes the student's ability to mix and match modules to meet his/her specific needs. In addition to the scheduled courses, special topics courses and tutorials are often arranged for individual students or small groups of students.

Number	Course	Semester	Credits
BSR1003	Responsible Conduct of Research	Fall	1
BSR1004	Introduction to Journal Club I	Fall	1
BSR1005	Introduction to Journal Club II	Spring	1
BSR1006	Laboratory Rotation - Fall	Fall	4
BSR1007	Laboratory Rotation - Spring	Spring	4
BSR1010	Biostatistics	Fall	3
BSR1012	Biomedical Sciences - Fall	Fall	5
BSR1013	Biomedical Science - Spring	Spring	5
BSR1106	Introduction to Structural Biology and Molecular Biophysics	Fall	3
BSR1501	Fundamentals of Immunology	Spring	3
BSR1701	Principles of Neurobiology: Systems Neuroscience	Spring	4
BSR1702	Cellular & Molecular Neurobiology	Fall	4
BSR1703	Neural Basis of Behavioral Plasticity and Cognitive Processes	Spring	4
BSR1800	Systems Biomedicine	Fall	6
BSR1801	Systems Pharmacology	Spring	3
BSR1802	Quantitative Graduate Physiology	Spring	3
BSR1803	Systems Biology: Biomedical Modeling	Spring	3
BSR2001	Electron Microscopy	Fall/Spring	2
BSR2002	Translating Science	Spring	2
BSR2102	Computational Structural Biology	Spring	3
BSR2104	Introduction to Computer Modeling & Macromolecules	Fall	3
BSR2105	Introduction to Methods in Theoretical Molecular Biophysics	Spring/Fall	3
BSR2106	Cellular Physiology and Ion Channels	Spring	4
BSR2108	Structural & Chem. Approaches to Mol. Design	Fall	
BSR2300	Embryos, Genes and Stem Cells	Fall	3
BSR2400	Translational Genomics	Spring	2
BSR2401	Introduction to Human Genome Sequencing	Fall	1
BSR2700	Neuropharmacology	Fall	1
BSR2701	Brain Imaging: In vivo methods	Fall	1

BSR2702	Molecular Pathogenesis of Neurological and Psychiatric Disorders	Fall	3
BSR2803	Quantitative Physiology: Drug Disposition & Dynamics	Fall	3
BSR3000	MSAP-I	Fall	1
BSR3001	MSAP-II	Spring	1
BSR4102	JC in Biomathematics & Translational Systems Biology	Spring	1
BSR4103	JC in Structural Chemical Biology and Molecular Design	Fall/Spring	1
BSR4201	JC in Cancer Biology	Fall/Spring	1
BSR4301	JC in Developmental and Stem Cell Biology	Fall/Spring	1
BSR4401	JC in Genetics & Genomic Sciences	Fall/Spring	1
BSR4501	JC in Immunobiology	Fall/Spring	1
BSR4601	Student JC in Microbiology	Fall/Spring	1
BSR4603	JC in Virus-Host Interactions	Fall/Spring	1
BSR4701	JC in Neurobiology	Fall/Spring	1
BSR4801	JC in Pharmacological Sciences	Fall/Spring	1
BSR5003	Medical Scientist Research Seminar Series (MD/PhD Seminar)	Fall/Spring	1
BSR5004	Meet the Authors Seminar Series - Fall	Fall	1
BSR5005	Meet the Authors Seminar Series - Spring	Spring	1
BSR5103	Sem in Structural Chemical Biology & Molecular Design	Fall/Spring	1
BSR5201	Seminar Series in Oncological Sciences	Fall/Spring	1
BSR5202	Sem in Cancer Biology: Work in Progress (Cancer Club)	Fall/Spring	1
BSR5301	Sem in DSCB: Works in Prog	Fall/Spring	1
BSR5302	Sem Series in Dev & Regen Bio & Black Family Stem Cell Institute	Fall/Spring	1
BSR5302	DRB Seminar Series	Fall/Spring	1
BSR5401	Seminar in Genetics and Genomic Sciences	Fall/Spring	1
BSR5501	Immunology Work in Progress Seminar	Fall/Spring	1
BSR5501	Seminar in Immunology	Fall/Spring	1
BSR5601	Seminar in Microbiology	Fall/Spring	1
BSR5701	Seminar in Neurobiology	Fall/Spring	1
BSR5802	Seminar in Pharmacology and Systems Therapeutics	Fall/Spring	1
BSR6201	Advanced Topics in Cancer Biology	Spring	3
BSR6202	Advanced Topics in Tumor Biology	Fall	3
BSR6401	Advanced Topics in Human Genetics	Spring	3
BSR6402	Practical Analysis of a Personal Genome	Fall	3
BSR6403	Advanced Topics in Transcriptional Regulation	Spring	1
BSR6502	Advanced Topics in Immunology	Fall	3
BSR6601	Advanced Virology	Fall (odd years)	3
BSR6701	Neuroanatomy	Spring	3
BSR6703	Neurobiology of Aging and Adult Development	Fall	3
BSR6704	Advanced Topics in Synapses	Spring	1
BSR6705	Topics in Clinical Neuroscience	Fall	1
BSR6706	Advanced Topics in Cognitive Neuroscience	Spring	1
BSR6708	Molecular Pathways and Integrated Physiology of Metabolism in Obesity, Diabetes and Aging	Spring	2
BSR6709	Consciousness: How the "Hard Problem" Can Inform Experimental Studies	Fall	2

BSR6801	Advanced Signal Transduction	Spring (odd years)	3
BSR6802	Pharmacogenomic: The Genetic Basis for Personalized Drug Therapy	Spring (even years)	2
BSR6803	PSB CMC: Data Mining and Network Analysis	Fall	1
BSR6804	Advanced Topics in Pharmacology	TBA	5
BSR6805	Fundamentals of Nanomedicine	Fall	3
BSR6806	PSB CMC: Computer Programming in Systems Biology & Bioinformatics	Spring	1
BSR6807	PSB CMC: Advanced Topics in Pharmacogenomics	Spring	1
BSR6900	Clinical Investigation for the Translational Scientist	Summer	2
BSR7000	Tutorial and Special Topics	Fall/Spring	Variable
BSR8000	Independent Research	Fall/Spring	6
BSR8001	Independent MS Biomedical Science Research	Fall/Spring	4
BSR8900	Thesis: MS Biomedical Science	Fall/Spring	3
BSR9000	Doctoral Dissertation Research	Fall/Spring	5
CLR0001	Masters Thesis for Clinical Research	Fall/Spring	5
CLR0002	Independent Study for Clinical Research	Fall/Spring	Variable
CLR0006	Spectrum of Methods in Clinical Research I	Fall	3
CLR0007	Spectrum of Methods in Clinical Research III	Spring	3
CLR0011	Research Grant Writing Course	Spring	1
CLR0016	Spectrum of Methods in Clinical Research II	Spring	3
CLR0017	Clinical and Translational Research Journal Club and Seminar - Fall	Fall	1
CLR0018	Clinical and Translational Research Journal Club and Seminar Series - Spring 2	Spring	1
CLR0019	Clinical and Translational Research Journal Club and Seminar Series - Spring 1	Spring	1
CLR0207	Culture, Illness & Community Health	Spring	3
CLR0320	Applied Biostatistics in Clinical Trials	Spring	3
CLR0500	Principal Topics in Biomedical Informatics	Spring	3
CLR0501	Computational Tools for Clinical Research	Spring	2
CLR0520	Advanced Topics in Biomedical Informatics	Spring	3
CLR0700	Professionalism and Ethical Issues in Clinical Research	Fall	2
CLR0711	Medical Ethics	Spring	4
CLR0901	The Drug Development Process	Spring	3
CLR1010	Clinical Trials Management	Fall	3
MGC1100	Introduction to Interviewing and Counseling Methodology	Fall	1
MGC1100	Intro to Interview & Counsel Methodology	Spring	1
MGC1101	Intro to Ethical Responsibility of Genetic Counselors	Fall	1
MGC1400	Medical Genetics	Spring	4
MGC3000	Impact of Illness on Patients and Families	Fall	2
MGC3200	Clinical Rotations for Genetic Counselors	Fall/Spring	6
MGC3301	Topics in Genetic Counseling I	Fall/Spring	2
MGC3301	Topics in Genetic Counseling - I	Fall	2
MGC3302	Topics in Genetic Counseling II	Fall/Spring	3
MGC3302	Topics in Genetic Counseling - II	Spring	3
MGC3303	Topics in Genetic Counseling III	Fall/Spring	2
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MGC3303	Topics in Genetic Counseling - III	Fall	6
MGC8300	Thesis in Genetic Counseling	Fall/Spring	4
MGC8300	Thesis in Genetic Counseling	Spring	4
MPH0001	Introduction to Public Health	Fall	3
MPH0002	Disease Prevention & Health Promotion for Non-Health	Fall	2
	Professionals		
MPH0003	Current Topics in Clinical Preventive Medicine	Spring	3
MPH0004	Public Health and Disabilities	Spring	3
MPH0005	Geographic Information Systems (GIS) for Public Health	Spring	1
MPH0006	Public Health Ethics	Spring	4
MPH0008	Introduction To Public Health Nutrition	Fall	3
MPH0010	Zoonoses: An Emerging Public Health Issue	Spring	3
MPH0021	Seminar in Applied Preventive Medicine	Fall	2
MPH0090	Practicum for Public Health	Fall/Spring	none
MPH0095	Independent Study for Public Health	Fall/Spring	Variable
MPH0099	Thesis: Masters in Public Health	Fall/Spring	4
MPH0103	Strategic and Program Management	Spring	3
MPH0104	Healthcare in Communities & the Public Sector	Spring	3
MPH0105	Health Economics	Spring	3
MPH0106	Public Health: Politics & Policy	Spring	3
MPH0107	Accounting & Budgeting for Public Health Administration	Spring	3
MPH0110	Pharmacoeconomics	Spring	3
MPH0201	Introduction to Socio-Behavioral Health	Spring	3
MPH0203	Introduction to Medical Anthropology	Spring	3
MPH0207	Culture, Illness & Community Health	Spring	3
MPH0210	Health and Literacy: Improving Health Communication Efforts	Spring	3
MPH0212	Life Cycle of Violence: Implications for Public Health	Spring	2
MPH0215	Teen Pregnancy Prevention and Intervention	Fall	2
MPH0300	Introduction to Biostatistics	Fall	3
MPH0305	Introduction to Qualitative Research Methods	Fall	3
MPH0311	Multivariable Methods	Spring	3
MPH0312	Research Ethics	Fall	3
MPH0320	Research Methods	Spring	1
MPH0400	Introduction to Epidemiology	Spring	3
MPH0401	Introductory Journal Club for Public Health	Fall	1
MPH0410	Epidemiology of Infectious Diseases	Spring	3
MPH0411	Journal Club for Health Professionals	Fall	1
MPH0412	Epidemiology	Fall	3
MPH0415	Case Studies in Epidemiology: Environmental & Occupational Health	Spring	3
MPH0500	Introduction to Environmental & Occupational Health	Spring	3
MPH0506	Topics on Safety and Ergonomics	Spring	1
MPH0515	Toxicology	Spring	3
MPH0523	Advance Occupational & Environmental Pulmonary Disease	Fall	2
MPH0525	Pediatric Environmental Health	Spring	3
MPH0621	Seminar in Applied Clinical Epidemiology and Health Services	Fall	3

	Research		
MPH0623	Applied Analysis of Epidemiologic and Outcomes Research Data	Spring	3
MPH0624	Outcomes Research Methods	Spring	3
MPH0700	Introduction to Global Health	Fall	3
MPH0701	Global Health Journal Club	Fall	2
MPH0705	The Health of Underserved Populations in the US	Spring	3
MPH0707	Humanitarian Emergencies and Refugee Health	Fall	2
MPH0710	Global Environmental Change	Spring	2
MPH0713	Health & Human Rights: Human Rights Abuses, Torture & Its	Fall	3
	Consequences		
MPH0717	Maternal & Child Health in Developing Countries	Spring	3
MPH0720	Preparation for Global Health Field Work	Spring	3
MPH0795	Global Health Conference	Spring	1
MPH0801	Introduction to Probability	Fall	3
MPH0802	Statistical Computing with SAS	Spring	3
MPH0820	Statistical Inference	Fall	3

5.2 Selected Course Descriptions

BSR1003 Responsible Conduct of Research, Fall 1 Credit Director(s): Charles Mobbs

This is a required course for all first year students. This course meets for eight 2-hr sessions to explore a variety of ethical and policy issues that may arise in basic and clinical scientific research. The 16-hour course encompasses a series of presentations in different formats that include presentations by guest speakers, panels of faculty members and videos. Each session also has an hour devoted to small group discussion of specific pre-assigned case studies with a faculty mentor. These discussions are followed by a full class wrap-up in which the groups compare notes on their conclusions, insights and remaining questions. Each student is required to submit a report discussing the assigned case study each week, and at the end of the course is required to submit a real-life case study of an ethical research dilemma encountered by the student, and an analysis of the resolution of the dilemma. The main resource is the website created by the Collaborative Institutional Training Initiative (CITI), which involves quizzes that the students must pass. This material is supplemented by additional assigned reading, with use of selected videos and other special materials. The current course director is Charles Mobbs, PhD, Professor of Neurosciences and Geriatrics. Typical specific topics for the eight two hour sessions are: (i) Research Misconduct; (ii) Experimental design and data management practices; (iii) Mentor and Trainee Responsibilities; Collaborative Research; (iv) Conflicts of Interest; Intellectual property; (v) The Protection of Human Subjects; (vi) The Welfare of Laboratory Animals; (vii) Publication, authorship, and peer review; (viii) Peer Review, the Grant Process, and Fiduciary Responsibility.

BSR1004 Introduction to Journal Club I, Fall 1 Credit

Director(s): Cathie Pfleger

This is a 2-part required course to be taken in the fall and spring semesters by all first year students who are enrolled in the Biomedical Science core course. The students will be divided into groups of five to eight students. Each group will have an advanced student mentor and a faculty mentor. The papers discussed will parallel the experimental data taught in Biomedical Science. All students will be required to participate in the presentation and discussion of the paper, getting any necessary preparatory help from the student and faculty mentors. The students will be graded on attendance, presentation and participation in discussions.

BSR1005 Introduction to Journal Club II, Spring 1 Credit Director(s): Sergei Sokol

This is a 2-part required course to be taken in the fall and spring semesters by all first year students who are enrolled in the Biomedical Science core course. The students will be divided into groups of five students. Each group will have an advanced student mentor and a faculty mentor. Each student will be required to present a paper, getting any necessary preparatory help from the student and faculty mentors. Each presentation will be followed by a discussion involving the entire group. Each student presenter will receive feedback about the presentation from the student and faculty mentor. The papers will parallel the experimental data taught in Biomedical Science. Students will be graded on attendance, presentation and participation in discussions.

BSR1006 Laboratory Rotation - Fall 4 Credits Director(s): Graduate School Faculty

Laboratory rotations are an important part of the first year of the Graduate Program at Mount Sinai. They give students the opportunity to experience different research projects, different laboratory and mentoring styles, and allow the faculty to assess the interests and aptitude of the students. In general, all PhD and MD/PhD students will complete three laboratory rotations (a minimum of two, in two different laboratories, is required) before declaring a research preceptor and a Multidisciplinary Training Area. The rotation facilitates the choice of preceptor and also offers students an exposure to problems and techniques of interest to them. Grading of rotations will be on a Pass/Fail basis.

BSR1010 Biostatistics, Fall 3 Credits

Director(s): John Mandeli

The purpose of this course is to familiarize students with basic principles of probability and statistics as applied to biomedical research. No prior knowledge of statistics is required. Our goal is to prepare students for critical reading of the scientific literature and for applying basic statistical methods to their own research. The course will be taught using SPSS; the fundamentals of SPSS will be presented. Topics covered include laws of probability, probability distributions and density functions (binomial, normal), the central limit theorem, confidence intervals, hypothesis testing, statistical power and sample size estimation, t-tests, nonparametric methods, chi-square tests, simple linear regression and correlation, one-way analysis of variance, two-way analysis of variance, principles of experimental design, completely randomized design, randomized block design, and factorial treatment designs.

BSR1012 Biomedical Science - Fall 5 Credits

Director(s): Dan Felsenfeld, Matthew O'Connell

Biomedical Science is a yearlong, six-unit course that surveys a broad and comprehensive study of basic Molecular, Cellular and Developmental Biology. The topics covered prepare students for both a career in Biomedical Research, and for the Advanced studies within the CAB, DSCB, GGS, IMM, MIC and SMD MTAs. Biomedical Science is a required course for all first year students that intend to be members of these MTAs. The course is structured as a series of lectures; grade assessment is based on a mixture of in-class and take home quizzes as well as one formal examination per unit.

BSR1013 Biomedical Science - Spring 5 Credits Director(s): Matthew O'Connell

This is the second semester of Biomedical Science, a yearlong, six unit course that surveys a broad and comprehensive study of basic Molecular, Cellular and Developmental Biology. The topics covered prepare students for both a career in Biomedical Research, and for the Advanced studies within the CAB, DSCB, GGS, IMM, MIC and SMD MTAs. Biomedical Science is a required course for all first year students that intend to be members of these MTAs. The course is structured as a series of lectures; grade assessment is based on a mixture of in-class and take home quizzes as well as one formal examination per unit.

BSR1701 Systems & Organizational Neurobiology, Spring 4 Credits Director(s): Patrick Hof, Elizabeth Cropper

Systems Neuroscience is an introductory course designed to provide a rigorous survey of brain structure and function encompassing comparative and functional neuroanatomy, systems-level neuroscience and physiology, and neuropathology. The class is composed of lectures from the medical school's Brain and Behavior course and advanced graduate-level lectures. Periodically, students are given a journal article relevant to the topic of that week in which they will be expected to answer three questions in advance of a student-led discussion session. Grades will be determined by participation in the discussion and paper-presentation sessions and by four, short-answer, non-cumulative quizzes. Our goals and objectives are for you to gain a fundamental understanding of systems-level neurobiology and neurophysiology while simultaneously gaining an appreciation for how basic neuroscience impacts our understanding of many clinically relevant aspects of human neuropathology. We feel this will best enable students to gain comprehensive knowledge of many aspects of human basic and clinical neuroscience, which is a cornerstone of translational issues relevant to research and programmatic directions supported by the Department of Neuroscience, Mount Sinai, and the National Institutes of Health.

BSR1800 Systems Biomedicine, Spring 6 Credits Director(s): Jeanne Hirsch

This active-learning course will introduce core biochemical, cell biological and molecular mechanisms together with basic bioinformatic and systems biology concepts and applications in the context of human biomedical research. The emphasis is 'top-down', beginning with a pathophysiological condition studied from a clinical perspective and moving towards explication of the molecular and metabolic logic, regulatory circuits and cell and tissue specific properties that distinguish the disease and normal state. The goals of this course are to provide students with an appreciation of the complexity of biological systems across scales and to give insight into pathophysiology as a basis for scientific enquiry and development of new therapeutic

strategies. Students will be guided to relevant textbook material and current reviews, and will also participate in analyses of primary journal articles to enhance their study of scientific method and to illustrate a variety of experimental and computational approaches to contemporary translational biomedicine. Problem sets and the methodologies for handling large data sets, including epidemiological and genetic data, will be introduced. This course is 6 credits with a journal club included in the body of five modules. The first module will be Introduction to Systems Biomedicine and will include an introduction to modeling using Matlab. The subsequent modules will focus on Diabetes, Cancer, Renal Disease and Drug Abuse.

BSR2001 Electron Microscopy, Fall/Spring 2 Credits Director(s): Ronald Gordon

This 2 credit didactic course covering the structure and function of the electron microscopes, TEM, SEM & STEM; tissue preparation for both types of scopes; freeze fracture; immunocytochemistry at the EM level; image analysis; photographic techniques and some special applications to include energy dispersive spectroscopy (EDS), wavelength spectroscopy and a variety of others.

BSR2104 Introduction to Computer Modeling & Macromolecules, Spring 3 Credits

Director(s): Mihaly Mezei

Faculty teaching: Roman Osman and Mihaly Mezei

Textbook: A. Leach, Molecular Modeling: Principles and Applications 2nd Ed. The course meets once a week for an hour, but students are expected to work through the tutorials of the various programs involved. During the meeting the concepts behind the computer modeling approaches are discussed, and the problems encountered using the programs are clarified.

The course relies mainly on academic software (<u>VMD</u> from <u>University of Illinois at Urbana-Champaign</u>, Amber from <u>Scripps</u>, <u>Gamess</u> from <u>Iowa State University</u>, <u>MMC</u> and <u>Simulaid</u> developed here) as well as on commercial software (<u>Gaussian</u> and <u>Pymol</u>). An additional component is the use of Web resources (e.g., the <u>Protein Data Bank</u> or the <u>ZINC</u> library of small molecules).

BSR2106 Cellular Physiology & Ion Channels, Spring 2-4 Credits Director(s): Vladimir Brezina

This course is designed to introduce graduate students in physiology and biophysics, neuroscience, cell biology, molecular biology, and pharmacology to fundamental concepts of cellular electrophysiology and signaling in neurons and other excitable cells. Understanding signaling on the cellular level is key to understanding how larger neural circuits within the brain operate. Furthermore, the specific properties of low-level components such as ion channels are often directly reflected in high-level functions and their disorders, and are the targets of drugs that ameliorate these disorders. The course covers the following topics: the laws governing ion movement through solution and membranes; resting potentials, action potentials, and other electrical membrane potentials; ion permeation through channels; channel gating; the various types of voltage-gated and ligand-gated channels; the roles of ion channels in sensory transduction, synaptic transmission, and learning and memory; channel modulation; and then, as time allows, further topics in cellular signaling through, for example, intracellular calcium and

second messengers. The later parts of the course emphasize the integration of the basic concepts in explaining cellular signaling on the functional level. Depending on participants' background and interest, some topics may be explored through computational models. The course is structured in two modules. The first provides a general overview of the fundamental concepts. The second offers a more advanced discussion of various instances of cellular signaling. Most students take both Modules 1 and 2 (4 credits), although it is possible to take just Module 1 (2 credits).

BSR4102 JC in Biomathematics & Translational Systems Biology Fall/Spring 1 Credit Director(s): Istvan Sugar

The goal of this course is to explore a variety of contemporary topics in mathematical and computational biology by reading and discussing recent journal articles in the field. Topics relevant to the research programs of participating students and postdocs are selected by the group at the start of each semester. The course involves bi-weekly scheduled meeting where both technical problems (possible program bugs) and problems relating to the underlying theory are discussed.

BSR4103 Journal Club in Structural Chemical Biology and Molecular Design Fall/Spring 1 Credit

Director(s): Shiraz Mujtaba

Students will present a recent journal article in the area of biophysics, structural biology, chemical biology, or molecular design. The article will be approved by the course director or for more senior students by their preceptors. There will be one presentation per term. The student will discuss in detail the article, the methodologies used and whether these were appropriate for the experiments carried out. The presentation should be 45 minutes with 15 minutes for questions and discussion. With the course director's permission, students will be able to present their own data instead of a journal article. The students will be graded pass/fail based upon both attendance and their performance at journal club. This is a required course for all SCBMD graduate students who have not passed their Thesis Proposal, and we will encourage Postdocs and upper level grad students to participate both as audience and as presenters. If the quorum is not met students who have not passed their Thesis Proposal must select another MTA journal club.

BSR4201 Journal Club in Cancer Biology, Fall/Spring 1 Credit Director(s): Matthew O'Connell

Journal Club for Cancer Biology Training Area. Open to PhD, MD/PhD, MS Biomed students.

BSR4401 Journal Club in Genetics and Genomic Sciences, Spring 1 Credit Director(s): Peter Warburton

This course is mandatory and open only to GGS Ph.D. and M.D./Ph.D. students. Each student presenter chooses a paper that is highly relevant to his/her own research project or plan. The presenter gives 5-10 minutes of introduction on the topic of the paper and their research, and the students present the paper Figure by Figure. For the final 20 to 30 minutes, the presenting student presents a progress report about their own work, and the impact that the chosen paper has made.

BSR4501 Journal Club in Immunology, Fall/Spring 1 Credit

Director(s): Garabet Yeretssian, Adrian Ting

This course follows an intensive small group discussion format that critically evaluates original research articles in the area of immunology. The articles are selected by the presiding faculty member, and include recent important advances in immunology or investigations that provide conceptual advances relating to long-standing problems. The analysis will include background to the research, the hypothesis tested, the experimental methods used, as well as interpretation and discussion of results. This is a discussion class and participation is required. Students are also expected to discuss the implications of the research, the new questions it raises, and how it relates to the rest of the field. Grading will be based on class participation and extent of preparation. This class is required for students beginning in their second year until they successfully pass their thesis proposal exam. First year students interested in immunology are encouraged to attend. Attendance is required for all classes.

BSR4601 Journal Club in Microbiology, Fall/Spring 1 Credit Director(s): Megan Shaw, Jean Lim

This course uses a journal club format to discuss important papers along the interests of the students enrolled. Each student is instructed to carefully select a paper that motivates the work in the lab and lead the discussion of the paper with the group. Depending on level of the student (beginning vs. advanced) work in progress can be presented using the paper as an introduction to the work. The course meets weekly. All MIC Training Area Graduate students are required to participate in the graduate student seminar each year in residence.

BSR4603 Journal Club in Virus-Host Interactions, Fall/Spring 1 Credit Director(s): Peter Palese

Frequency: Offered EVERY Fall and Spring. This one credit journal club course aims to communicate the most exciting ongoing research involving viruses and their molecular interactions with the host, as well as to train students and postdoctoral fellows in the skills of scientific presentation. The course is regularly attended by twenty to thirty research personnel from 10 laboratories, including faculty, postdoctoral fellows, medical students, and graduate students, both from within and outside the MSM Training Area. The course serves as a forum for interdisciplinary communication and discussion of the latest research in the fields of virology, cell biology and immunology. Informed introduction, concise presentation and critical discussion are the themes of the journal club.

BSR4701 Journal Club in Neurobiology, Fall/Spring 1 Credit Director(s): Dara Dickstein, Ann Schaefer

Students will present work in progress and are strongly encouraged to have their advisory committee present. Alternatively, students can present a paper with relevance to their lab work. This course meets weekly.

BSR4801 Journal Club in Pharmacological Sciences, Fall/Spring 1 Credit Director(s): Eric Sobie, Susana Nieves

The Pharmacology Journal Club is a part of the Integrated Training Program in Pharmacological Sciences. The club meets biweekly with papers presented by the graduate students who also discuss their own work. The setting is informal and lunch is provided. Each paper is chosen by the presenting student and usually reflects some aspect of pharmacology/therapeutics in a broad

sense. Topics discussed over the past year include general studies on signaling/development to biofilms, opioid receptor trafficking, and therapeutic approaches to HIV. The papers are distributed as PDF files by e-mail a few days before the meeting

BSR5003 Medical Scientist Research Seminar Series (MSRS), Fall/Spring

1 Credit

Director(s): Yasmin Hurd

BSR5004 Meet the Authors Series, Fall/Spring 1-2 Credit(s),

Director(s): Chris Basler, Michael Rendl

This is a two part seminar series: The "Dean's Lectures" and the "Meet the Authors" seminars. The Dean's lectures host distinguished external and internals scientists to present an overview of their work. The "Meet the Authors" seminars feature a research article in press or very recently published in a visible journal. Both the senior and first authors present the work. The senior author gives an overview of the field leading to the paper and the first author presents the background specific to the paper as well as the results of the work. These types of seminars take place on Wednesdays 4-5 pm.

In the fall, students should submit 3 one-page summaries of seminars of their choice while in the spring they must submit 6 one-page summaries of their choice.

BSR5103 Seminar in Structural Chemical Biology & Molecular Design, Fall/Spring 1 Credit

Director(s): Roberto Sanchez

Students will attend weekly seminars of their choice in, structural biology, chemical biology, or molecular design, or other related topics to provide themselves with a wide range of exposure to topics and speaker styles. Each semester students will write three summaries on the seminars of their choice. The goal of the summaries should be to convey the main points and "take home messages" of the seminars in the student's own words. The course will be graded pass/no pass and students based upon attendance at seminars and on submission and quality of their summaries. This is a required course for all SMD graduate students who have not passed their Thesis Proposal.

BSR5201 Oncological Sciences Seminar Series, Fall/Spring 1 Credit Director(s): Matthew O'Connell

The Cancer Biology Seminar Series brings leading cancer researchers to MSSM to present their latest research, and students both attend the seminar and then meet as a group with the speaker.

BSR5202 Cancer Biology Work in Progress (Cancer Club), Fall/Spring 1 Credit Director(s): James J. Manfredi

Presentations of research by students provide each the opportunity to present their research at least once during the academic year.

BSR5301 Seminar in DSCB: Works in Progress, Fall/Spring 1 Credit Director(s): Robert Krauss, Marek Mlodzik

Presentation of research by students; each student to present at least once per year

BSR5401 Seminar in Genetics and Genomic Sciences, Fall/Spring 1 Credit Director(s): Edward Schuchman

All GGS students who have not yet passed the Thesis Proposal are required to register for this course

BSR5501 Seminars in immunology, Fall/Spring 1 Credit Director(s): Julie Blander

This course combines two seminar series hosted by the Immunology Institute at Mount Sinai. The first series features a monthly seminar given by an invited speaker who is a prominent scientist in immunology. Students are expected to familiarize themselves with the speaker's research areas. Students are expected to attend a luncheon with the speaker, which provides them with an opportunity to meet with the speaker and ask questions or engage in discussions. The second series is a weekly work-in-progress seminar presented by students and post-docs on their research. Students will be required to present in this seminar series starting in their 3rd year. Attendance in both seminar series is required. Detailed schedules are posted online at the immunology Institute Website: http://www.iisinai.org/

BSR5601 Seminar in Microbiology, Fall/Spring 1 Credit

Director(s): Matthew Evans

Offered EVERY Fall and Spring. Because of the diverse interests of our faculty, topics range from immunology, virology, bacteriology, oncogenesis, and signal transduction, to molecular biology. Speakers come from all over the United States, Europe, Australia, and Asia. They are from both academic institutions and from industry. The seminar series is attended by faculty from basic science, as well as from clinical departments. Students registered for this course are expected to attend all seminars and to write up a short paper in which they discuss the topic of one of the seminars.

BSR5701 Seminar in Neurobiology, Fall/Spring 1 Credit

Director(s): Patrick Hof

This is the Translational Neuroscience seminar series. The seminars will be advertised by e-mail and will be posted on bulletin boards throughout the institution. Neuroscience students are required to attend.

BSR6201 Advanced Topics in Cancer Biology, Spring 3 Credits Director(s): James Manfredi

Advanced Topics in Cancer Biology will be offered in the Spring semester. Three modules will be offered. Students may take either one, two, or all three modules for credit. Each module is 1 credit. This is a journal article-based class in which students take turns leading discussion of assigned journal articles centered on a specific topic and chosen by faculty module leaders. For general information, students should contact James Manfredi.

BSR6202 Advanced Topics in Tumor Biology, Fall 3 Credits

Director(s): Matthew O'Connell

Advanced Topics in Tumor Biology is a 3-module course in which students may take either one, two, or all three modules for credit. Each module is a credit course consisting of journal article-

based student presentations in particular topics that are relevant to tumor biology. The focus will be on areas of specifically related to tumorigenesis. This is a semester long course, lasting 15 weeks.

BSR6401 Advanced Topics in Human Genetics, F 3 Credits Director(s): Edward Schuchman

Recent research articles are presented by the students in the class and discussed. Topics include anything relevant to the field of human genetics, including positional cloning, gene therapy, mutation identification, disease delineation, etc. Grades are based on class participation and a term paper prepared in the format of a grant application. The class is primarily intended for genetic counseling students, but also open to doctoral students.

BSR6601 Advanced Virology, Fall 3 Credits Director(s): Ana Fernandez-Sesma, Viviana Simon

The goal of this course is to provide a broad-based systematic approach to the problem of virus-host interactions. The course is designed to be coordinated with the bi-annual New York Academy of Sciences Symposium on Virus-Host Interactions. All first year and second year students interested in cell biology, immunology, and/or molecular genetics/gene therapy are encouraged to participate. This non-modular course will begin with an introduction to viral immunity and will then explore the strategies that viruses have developed in order to evade them. While all viruses enter cells, replicate their genomes, and then exit, the specific tactics that they have evolved to do this differ dramatically among the virus groups. Specifically, we will discuss (i) the basic life cycle of relevant viruses and (ii) the ways in which they interact with their host cells and evade immune detection.

BSR6703 Neurobiology of Aging and Adult Development, Fall 3 Credits Director(s): Charles Mobbs

This course examines age-related changes in the neurobiological systems. The course is structured around four main neurobiological systems: neuroendocrine, sensory, motor, and cognitive.

BSR6801 Advanced Signal Transduction, Spring 4 Credits Director(s): Jeanne Hirsch

This course uses the primary literature to develop a systems level understanding of the information flow through the various cell signaling pathways and networks. The experimental and theoretical information that led to the current concepts in cell signaling research are highlighted. Each lecture is 2hrs. After each set of lectures there is a two hrs. discussion period where students in consultation with the lecturer select a recent primary publication and present an in-depth analysis with class participation.

BSR6804 Advanced Topics in Pharmacology 5 Credits Director(s): TBD

This advanced course requires the student to have successfully completed Special Topics in Pharmacology. It is taught in conjunction with the medical school pharmacology course and interdigitates some lectures from that course with problem solving sessions, discussions of current literature on experimental approaches to mechanisms of drug action, and advanced

coverage of computational approaches to therapeutics (pharmacokinetic-pharmacodynamic modeling), molecular and structure based design of drugs, drug metabolism, drug development and drug function in integrated systems.

BSR6900 Clinical Investigation for the Translational Scientist 2 Credits Director(s): Yasmin Hurd

This survey course has been designed /PhD students to the various aspects of translational to introduce MD/PhD students to models and mechanics of translational research. The goals are to: 1) formally introduce MD research; 2) provide them with some examples from within the institution of successful translational research projects; and 3) provide them with information that may be helpful to them in developing their own career path.

BSR7000 Tutorial and Special Topics (By Arrangement only), Fall/Spring 0 Credits Director(s): Graduate School Faculty

By Arrangement Only - Subject to Graduate School Approval

- -The Translational Research Team: Team Building and Management
- -The Regulatory Environment and Human Subjects Research
- -The Collection, Use, and Storage of Human Derived Materials for Research
- -Preclinical Studies: Use of Animal Models, In Vitro Systems and Computer Modeling
- -Preclinical Studies: Toxicology and Interface with the Clinical Protocol
- -Clinical Evaluation I: Moving into Humans The Phase I/II Clinical Trial
- -Clinical Evaluation II: The Phase III Trial
- -Evaluation of New Devices and Diagnostics
- -Translational Research in Atherothrombosis
- -Bioinformatics and data mining
- -Authorship & Principles of Collaboration (including ethical issues in grant & manuscript preparation)
- -Drug Development in the Biotech Industry and Big Pharma
- -Obstetrics, Gynecology and Reproductive Science
- -Protection of Intellectual Property and Technology Transfer
- -Opportunities and career paths for translational scientists

BSR8000 Independent Doctoral Research, Fall/Spring 6 Credits

Director(s): Graduate School Faculty

Credit for Thesis Research

BSR8001 Independent MS Biomedical Science Research, Fall/Spring 4 Credits

Director(s): Graduate School Faculty

Credit for MS thesis research

BSR8900 Thesis: MS Biomedical Sciences 3 Credits

Credit for MS thesis

BSR9000 Doctoral Dissertation Research, Fall/Spring 5 Credits

Director(s): Graduate School Faculty

MPH0103 Strategic & Program Management, Spring 3 Credits Director(s): Gary Rosenberg

This course is an introduction to understanding health management, program and project planning, implementation and evaluation. The course provides an introduction to human resource management, budgeting and financial management, social marketing and organizational analysis. Through readings, class discussion and case analysis, students will have the opportunity to explore and identify key issues impacting the management of public health programs; formulate and evaluate alternative solutions to problems; learn verbally and in writing to present analysis of managerial problems and plans. They will learn to apply strategic thinking to managing public health programs and critically analyze management strategies and organizational design which lead to successful or failed outcomes in public health programs.

CLR0207 Culture, Illness & Community Health, Spring 3 Credits Director(s): Gary Butts, Mary Foley and Edward Poliandro

This course considers Franz Boas' definition of culture as culture is everything but natural science.[1] Any interaction or encounter with another individual or group of individuals is in fact a cultural experience that occurs within a cultural context. Broadly, this course aims to demonstrate how culture is conceptualized, considered, and explored in a broad range of issues in the basic, clinical, and community arenas around health and illness and to distinguish the cultural context in each session. The course utilizes class room lecture and small group discussion sessions and a small group project to enable participants to integrate culturally effective approaches into the design and implementation of research across the translational spectrum that improve patient and community health outcomes and reduce health care disparities.

MPH0215 What's sex got to do with it? Teen Pregnancy Prevention and Intervention, Spring 3 Credits

Director(s): Andrea Rothenberg

Pregnancy during the second decade of life is a complex issue requiring multifaceted interventions on a primary, secondary, and tertiary level. A broad range of sociological, cultural and behavioral issues affecting adolescent pregnancy will be explored. Topics will include: predisposing and contributing factors to early pregnancy, protective factors and assets building during development, the strengths perspective, access to reproductive healthcare for women and men, options counseling, and evidenced based pregnancy prevention and intervention programs. Teen mothers, young fathers, and the parents and children of teen parents as well as teens who have chosen not to have a baby will be guest speakers. Emphasis will be on assisting healthcare providers explore the latest trends in this area as well as their individual attitudes and beliefs about early pregnancy and parenting in order to enhance their ability to work effectively with young women and their families.

MPH0300 Introduction to Biostatistics, Spring 3 Credits

Director(s): James Godbold

Students will learn how to conduct descriptive and univariate analyses of data from a well-designed public health or medical study and how to interpret the results of the analyses. Students will learn how to present numerical summary measures derived from large data sets as well as

appropriate use of graphical displays. Basic concepts of probability theory will be covered, along with notions of conditional probability, illustrated with measures for assessing efficacy of diagnostic and screening tests. Important probability distributions, such as the Normal and binomial, will be discussed, and students will be able to solve problems involving probabilities calculated from these distributions. Students will learn how to perform the three basic types of statistical inference: point estimation, hypothesis testing, and confidence intervals. In particular, students will learn how to apply the t-test to compare two means, and how to apply the analysis of variance (ANOVA) to compare three or more means. Non-parametric tests will be illustrated as alternatives to t-tests or ANOVA when the assumption of Normality is in doubt. Students will learn how to use chi square methods to analyze categorical data. Students will also learn how to recognize censored data arising from historical or concurrent prospective studies, how to apply techniques of survival analysis to generate Kaplan-Meier curves, and how to use the log-rank test to test for differences between curves. Simple linear regression and correlation will be discussed as methods for examining the relationship between two continuous variables, along with ways to evaluate the appropriateness of the regression model that has been fit to the data. Logistic regression models will be introduced as a method for the analysis of data from case-control studies, with emphasis on the estimation of an adjusted Odds Ratio. In the outside project, students will have the opportunity to assess the appropriateness of use of statistical methods in the published literature.

CLR0700 Professionalism and Ethical Issues in Clinical Research, Fall 3 Credits Director(s): Rosamond Rhodes

This seminar will explore the complex issues raised by human subject research. The seminar will begin with a review of some of the landmark cases of unethical use of human subjects in research, the policies that shape our current understanding of the ethical conduct of research, and the mechanisms for research oversight that have been instituted. Then, through reading a broad selection of seminal articles and papers from the recent literature, seminar presentations, and discussion, we shall engage in a conceptual analysis of a number of controversial and pressing issues. We shall be discussing the moral and public policy aspects of topics such as research design, risk-benefit assessment, informed consent, the use of "vulnerable" subjects, research without consent, confidentiality, inducements, conflicts of interests, disclosure of research findings, tissue use, vaccine development, international research. In addition to exploring the moral landscape of this rich and provocative domain, the seminar should clarify and inform participants' understanding of basic moral concepts such as autonomy and justice. It should also serve as a model for approaching other issues in applied ethics..

MPH0320 Research Methods, Spring 1 Credit Director(s): Mary Foley

Pre-requisites:

- 1) Introduction to Epidemiology
- 2) Introduction to Biostatistics (students may take this course concurrently)

Research Methods encompasses a set of fundamental skills and tools necessary for approaching the process of developing and answering a research question or being an informed consumer of information in the marketplace. This course provides a solid and practical framework enabling students to successfully embark upon their Master's Theses. The course is an essential component to understanding how to organize research: helping students to conceptualize, develop, propose, design, and write research papers, in general, and the Thesis, in particular. This 1 credit course will be graded on a Pass/Fail basis.

MPH0400 Introduction to Epidemiology, Fall 3 Credits

Director(s): Stephanie Factor

This introductory course focuses on the fundamental concepts of epidemiology and its application to the field of public health. The course will provide students with an insight to epidemiologic methods and how they can be used to study health outcomes in human populations. Students will learn the elements of epidemiology, such as causation, study design, measures of effect, and potential biases. Practical and theoretical training will include lectures, small group discussions, and readings.

MPH0401 Introductory Journal Club, Fall 1 Credit

Director(s): Yvette Sealy

The Journal Club provides students with a functional opportunity to learn to read, analyze, and critique the professional literature under the guidance of a variety of faculty members from the Mount Sinai Medical Center. At least one week before each scheduled Club meeting, the invited faculty member selects a current article from the public health literature. The faculty member serves as discussion moderator and students attend class prepared to discuss the assigned reading. The Club meets once each month from September to June (students enroll for this yearlong course in the Autumn Term). This course is graded on a Pass/Fail basis.

MPH0411 Journal Club for Health Professionals, Spring 1 Credit

Director(s): Elizabeth Garland

Pre-requisites:

- 1) Introductory Journal Club
- 2) Introduction to Epidemiology
- 3) Introduction to Biostatistics

Students must be currently licensed health professionals, however if they are not currently licensed they must obtain the approval of the Course Director to enroll.

This intermediate level Journal Club meets bi-weekly, building upon the Introductory Journal Club, training students in the presentation of articles relevant to the public health specialties of environmental, occupational and preventive medicine. Each student will be assigned a week to be responsible for selecting and presenting an article relevant to their area of specialization. The student may decide to invite a Mount Sinai faculty expert in the particular topic to provide additional commentary on the article. Prior to class, all students are required to have read the article and complete a short critique form. All students are expected to participate in class discussions. The Club meets twice a month for the academic year. This course is graded on a Pass/Fail basis.

MPH0621 Seminar in Applied Clinical Epidemiology and Health Services Research,

Spring 1 Credit

Director(s): Jeffrey Weiss, Jenny Lin

Pre-requisites:

- 1) Introduction to Epidemiology
- 2) Introduction to Biostatistics

Students who are not Residents in the Department of Internal Medicine must receive permission from the Course Director prior to enrolling in this course.

This weekly seminar focuses on current local, national, and international issues in clinical epidemiology and health services research. Discussions center on critical review of the published literature in public health and include topics related to health policy and management, economic and legal issues, and the impact of these issues on the health of populations. On a rotating basis, each student is responsible for setting the agenda and chairing seminar discussions. Students enroll for this multi-term course in the Winter Term. This course is graded on a Pass/Fail basis.

MPH0700 Introduction to Global Health, Spring 3 Credits

Director(s): Nils Hennig

Pre-requisites: Introduction to Public Health

This course provides an introduction to the major concepts and principles of global health with particular emphasis on neglected populations. Students will gain an understanding of the principles of health within the context of development, human rights, and globalization providing an appreciation of the varied challenges and controversies. Students will learn about the establishment of global health priorities, developing an appreciation for issues related to underserved populations. Students will learn about the major players in the global arena and challenges of financing. A multidisciplinary approach is used to discuss the major determinants of health and disease with particular emphasis on the relationship between health and socioeconomic development. At the end of the course, students will be introduced to the most important challenges and variables of global health and their interactions. They will be prepared to advance to more specific and in-depth courses within the Global Health specialization track of the Master of Public Health Program.

5.3 Typical PhD Curricula

These typical curricula are for PhD students and MD/PhD students entering the PhD phase. Note: MD/PhD students should complete their Core courses during their first year of medical school. All other first year PhD courses should be completed in their first PhD year.

Typical Curriculum¹ for Cancer Biology (CAB)

First Year – Fall	First Year – Spring	Second Year – Fall	Second Year - Spring
BSR1012 - Biomedical Sciences	BSR1013 - Biomedical Sciences	Advanced Topics in Tumor Biology ⁴	BSR6201 – Advanced Topics in Cancer Biology
BSR1006 - Laboratory Rotation			
BSR1003 – Responsible Conduct of Research BSR1004 – Introduction to Journal Club	BSR1007 – Laboratory Rotation	BSR8000 – Independ	dent Research
BSR1010 – Biostatistics	BSR1005 – Introduction to Journal Club II	Cancer Biology Wor (Cancer Club)	k in Progress ³
BSR5004 – Meet the Authors	Translating Science (BSR1011) BSR5004 – Meet the Authors	Journal Club in Canc	

¹ The Advisory Committee may recommend additional courses, based on the student's needs and area of interest

² Existing departmental series on Tuesdays

³ Existing Cancer Club on Thursdays

⁴ New courses

Typical Curriculum¹ for Developmental and Stem Cell Biology (DSCB)

First Year - Fall	First Year - Spring	Second Year - Fall	Second Year - Spring
BSR1006 -	BSR1007 - Laboratory	BSR8000 -	BSR8000 -
Laboratory	Rotation	Independent Research	Independent Research
Rotation	(4 cr)		
(4 cr)			
Biomedical Sciences	Biomedical Sciences	***Genes, Embryos,	Elective (3 cr)
(5 cr)	(5 cr)	and Stem Cells	
		(3 cr)	
BSR1010 -		*Department of DRB	*Department of DRB
Biostatistics		and BFSCI Seminar	and BFSCI Seminar
(3 cr)		Series	Series
		(1 cr)	(1 cr)
BSR1003 -	Translating Science	** Developmental,	**Developmental,
Responsible	(BSR1011) (2 cr)	Regenerative and Stem	Regenerative and Stem
Conduct of		Cell Biology Work in	Cell Biology Work in
Research		Progress	Progress
(1 cr)		(1 cr)	(1 cr)
BSR1004 -	BSR1005 -	BSR4301 - Journal	Journal Club in
Introduction to	Introduction to	Club in Developmental	Developmental and
Journal Club	Journal Club II	and Stem Cell Biology	Cell Biology (1 cr)
(1 cr)	(1 cr)	(1 cr)	
BSR5004 – Meet the	BSR5004 – Meet the		
Authors	Authors		
(1 cr)	(2 cr)		

^{*}Existing seminar series on Thursdays (DRB alternating with BFSCI; see below)

^{**}Existing series on Mondays

^{***} Genes, Embryos and Stem Cells is offered every other year and students will take it in either their second or third years.

¹ The Advisory Committee may recommend additional courses, based on the student's needs and area of interest

Typical Curriculum¹ for Genetics and Genomic Sciences (GGS)

First Year - Fall	First Year - Spring	Second Year
Biomedical Sciences	Biomedical Sciences	At least 3 advanced
Core 1 (BSR1012)	Core 2 (BSR1013)	course credits ²
Laboratory Rotation	Laboratory Rotation	GGS Seminar
(BSR1006)	(BSR1007)	
Introduction to Journal	Introduction to Journal	Independent Research
Club I (BSR1004)	Club II (BSR1005)	
Responsible Conduct of	GGS Journal Club	GGS Journal Club
Research (BSR1003)		(Spring)
Biostatistics (BSR1010)	Advanced Elective	
Meet the Authors	Meet the Authors	
(BSR5004)	(BSR5004)	
	Translating Science	
	(BSR1011)	

¹ The Advisory Committee may recommend additional courses, based on the student's needs and area of interest

² These will be chosen in consultation with the student's Advisory Committee and/or the Training Area Directors.

Typical Curriculum¹ for Immunology (IMM)

First Year		Second Year		Third Year	
Fall	Spring	Fall	Spring	Fall	Spring
Biomedical	Biomedical	Journal Club in	Journal Club in	Journal Club in	Journal
Sciences	Sciences	Immunobiolog	Immunobiology	Immunobiology	Club in
BSR1001	BSR1002	y BSR4501	BSR4501	BSR4501	Immunobiol
		3			ogy BSR4501
Laboratory	Laboratory	Immunology	Advanced	Seminars in	Seminars in
Rotation	Rotation	Core 3	Topics in	Immunology	Immunolog
BSR1006	BSR1007	BSR1502	Immunology BSR6502	BSR5501	y BSR5501
Responsibl	Introductio	Seminars in	Seminars in	Dissertation	Dissertation
e Conduct	n to Journal	Immunology	Immunology	Research	Research
of Research	Club II	BSR5501	BSR5501		
BSR1003	BSR1005				
Introductio	Meet the	Dissertation	3 Credits		
n to Journal	Authors	Research ³	Elective ²		
Club I	BSR5004				
BSR1004					
Biostatistic			Dissertation		
s BSR1010			Research		
Meet the					
Authors					
BSR5004					

¹ The Advisory Committee may recommend additional courses, based on the student's needs and area of interest

² These can be taken at any time during the second or third year and will be chosen in consultation with the student's Advisory Committee and/or the Training Area Directors.

³ These courses are offered in Fall and Spring.

Typical Curriculum¹ for Microbiology (MIC)

First Year - Fall	First Year - Spring	Second Year
Biomedical	Biomedical	Journal Club in Microbiology
Sciences	Sciences	(BSR4601)
(BSR1012)	(BSR1013)	
Laboratory	Laboratory Rotation	Journal Club in
Rotation	(BSR1007)	Virology/Oncogene (BSR4602)
(BSR1006)		
	Introduction to	Caminan In Mianahialagy
	Journal Club II	Seminar In Microbiology
		(BSR5601)
	(BSR1005)	
Responsible	Fundamentals of	Students need a total of 6 credits
Conduct of	Immunobiology	as follows ³ :
Research	$(BSR1501)^2$	
(BSR1003)		Advanced courses:
Introduction to	Translating Science	Advanced Virology (MSSM or
Journal Club I	(BSR1011)	NYU, (BSR6601)), Immunology
(BSR1004)		Core 3 (BSR1502), or any other
Biostatistics	Dean's Lecture	advanced class offered by any
(BSR1010)	Series (BSR5002)	MTA that could be pertinent to
		the student's project.
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Meet the Authors		Independent Research
(BSR5004)		

¹ The Advisory Committee may recommend additional courses, based on the student's needs and area of interest.

² This course may be used toward the completion of Advanced Courses.

³ These will be chosen with the approval of the Dissertation advisor and Training Area Director or Advisory Committee.

Typical Curriculum¹ for the Neuroscience (NEU)

First Year - Fall	First Year - Spring	Second Year
Molecular and Cellular	Systems Neuroscience Core	Core 4-
Neurobiology Core 1 (BSR	2 (BSR1701)	Molecular
1702)		Pathogenesis
		of
		Neurological
		and
		Psychiatric
		Disorders &
		Topics in
		Clinical
		Neuroscience
		(students
		should register
		for both
		courses)
Responsible Conduct of	Neural Basis of Behavioral	At least 2
Research (BSR1003)	Plasticity Core 3 (BSR1703)	course to be
		chosen from#
		2 below.
NEU Journal Club	NEU Journal Club	NEU Journal
(BSR4701)		Club
Translational Neuroscience	Translational Neuroscience	Translational
Seminar (BSR5701)_	Seminar (BSR 5701)	Neuroscience
\		Seminar (BSR
		5701)_
Meet the Authors (BSR5004)	Meet the Authors	Independent
	(BSR5004)	Research
Biostatistics (BSR1010)	Translating Science	
	(BSR1011) (optional)	
Laboratory Rotation	Laboratory Rotation	
(BSR1006)	(BSR1007)	

¹ The Advisory Committee may recommend additional courses, based on the student's needs and area of interest.
2 These will be chosen with the approval of the Advisory Committee. Course selection includes - Brain Imaging: In Vivo Methods, Cellular Physiology & Ion Channels, Neuropharmacology, Neurobiology of Aging & Adult Development, Advanced Topics in Cognition, Advanced Topics in Synapses, Neuroanatomy, Molecular Pathways of Metabolic Disease.

Typical Curriculum¹ for System Biology of Disease & Therapy (SBDT)

First Year - Fall	First Year - Spring	Second
		Year
Systems Biomedicine	Systems Pharmacology (BSR1801) or	TBA
(BSR1800)	Quantitative Graduate Physiology	
Quant. Grad. Physiology	Biomedical Modeling	
(BSR1802)	(BSR)	
Laboratory Rotation	Laboratory Rotation (BSR1007)	At least 4
(BSR1006)		advanced
	Introduction to Journal Club II	course
	(BSR1005)	credits ²
Responsible Conduct of		PSB
Research (BSR1003)		Journal
		Club
		(BSR4801)
Biostatistics (BSR1010)	Translating Science (BSR1011)	PSB
		Seminar
Meet the Authors	Meet the Authors (BSR5004)	Independent
(BSR5004)		Research

¹ The Advisory Committee may recommend additional courses, based on the student's needs and area of interest 2 These will be chosen in consultation with the student's Advisory Committee and/or the Training Area Directors.

Typical Curriculum¹ for Structural/Chemical Biology and Molecular Design (SMD)

First Year - Fall	First Year – Spring	Second Year
Biomedical Sciences (BSR1012)	Biomedical Sciences	Students need a total of
	(BSR1013)	6 credits. At least three
		credits of advanced
		SMD courses and
		remainder credits from
		any advanced course
		recommended by the
		advisor and approved by
		the training area
		directors. ²
Laboratory Rotation (BSR1006)	Laboratory Rotation	Structural and Chemical
	(BSR1007)	Approaches to
Introduction to Journal Club I	Introduction to Journal	Molecular Design
(BSR1004)	Club II (BSR1005)	(BSR2108)
Meet the Authors (BSR5004)	Meet the Authors	SMD Seminar and SMD
	(BSR5004)	Journal Club
Biostatistics (BSR1010)	Translating Science	
	(BSR1011)	Independent Research
Responsible Conduct of Research		
(BSR1003)		

¹ The Advisory Committee may recommend additional courses, based on the student's needs and area of interest.

Introduction to Computer Modeling of Macromolecules (BSR2104) Cellular Physiology and Ion Channels (BSR2106)

² Courses that can satisfy the second year course requirements:

6. Academic Policies and Procedures

6.1 Grading, course examinations, missed examinations

Course Directors have the option of giving letter grades A(-), B(+/-), C(+/-), and F or grading the course as P/F, with the exception that all core courses must be graded with letter grades. Clinical rotations for MS programs, laboratory rotations and the MTA/departmental seminars and journal clubs are always graded as P/F. Elective courses outside of the student's training area may be taken P/F, even if it is a graded course. Under extraordinary circumstances (such as medical emergency), a temporary grade of Incomplete (I) may be recorded for a student who is unable to complete course requirements.

To receive an incomplete grade, the student must make a formal request using the Incomplete Grade Request Form. The form must be signed by both the student and the course director. The request will include the reason for the incomplete, the work yet to be completed, and the final date the work is to be completed. Final approval will be given by the Registrar.

Students have one academic year to remediate an incomplete, after which time the incomplete is converted to a failing grade (F). Letter grades (A, B, C, or F) may not be changed once they have been recorded in the Graduate School records, except if there was a clerical error by the course director in the submission of the grade. If a course director has agreed to consider additional work from a student, then the initial grade recorded should be an incomplete. This grade must then be resolved within one year of the time of assignment. Students are expected to monitor their GPAs and their progress towards completion of the General Program Requirements and MTA requirements. Students should be aware that proper citation practices are required on all course take-home exams and papers as well as in proposals, dissertations and publications.

In the event of illness, students should notify the course director(s) on or before the day of the examination (or as soon thereafter as possible) if they are to miss an exam or quiz. Once able, the student should see student health or their doctor and obtain notification of illness. Following that, an exam or quiz will be scheduled at the earliest possible date.

In other extenuating circumstances, students should notify the course directors as early as possible if they are to miss an exam or quiz. Plans to take an alternative exam or quiz will be considered on an individual basis.

If an exam or quiz is missed without illness or extenuating circumstance, a score of zero will be recorded for that paper.

A student who has missed an exam should sign a statement certifying that they have not discussed the exam with any other class member who may have taken the exam earlier. This form can be obtained from the Graduate School office.

Students who have completed all requirements except the dissertation, and have been advanced to doctoral candidacy may register to audit graduate courses. Students receive no credits or grades in such courses.

6.2 Credits/GPA

PhD students must complete a minimum of 72 graduate credits. PhD students must achieve a B (3.0) grade point average in the core curriculum, which must be completed by the end of the second semester of study. As detailed later (see Transfer Credits) transfer credits are ordinarily awarded for prior graduate work. The average time for completion of the PhD program is currently five years and that for the MD/PhD is somewhat less than eight years total.

In calculating the GPA, all credits with the following grades are counted in the total used to compute the grade point average/cumulative index: A (+/-), B (+/-), C (+/-), and F.

To compute the grade point average, follow the steps below: Determine the total number of credits completed by adding up all the credits with letter grades. This total must include any credits with "F" grades.

For each course with a letter grade, which counts toward the GPA, multiply the number of credits by the appropriate quality point value, as indicated below:

Grade	Quality Point Value
A	4.00
A-	3.70
B+	3.30
В	3.00
B-	2.70
C+	2.30
C	2.00
C-	1.70
F	0.00

Add the quality point values for all the courses to determine the total quality points. Divide the total quality points by the total number of credits (as computed in Step 1). The resulting figure is the grade point average/cumulative index. Please note that the index is computed to two decimal points and the index is not rounded off.

Credits with grades of P or SP do not figure into the computation of the grade point average but

do count toward the degree. Transfer credits also count toward the degree but do not figure into the index. Credits for undergraduate courses neither count toward the degree nor are they computed into the average.

6.3 Graduate School Grade Appeals Process

A student has 3 months from the date of receiving a course grade to make an appeal. The student must realize that the grade may be amended in either direction. All course grade appeals must be brought by the student to the course director. If there is still a discrepancy after the meeting of the course director and the student, the student should present the problem in writing to the Program Director, or Associate Dean of the Graduate School, who will ensure that due diligence was done by the course director and that, in fact, no error had been made. If the student wishes to pursue an appeal, either the Program Director, or the Associate Dean of the Graduate School, will establish an ad hoc committee to address the appeal. Information for the appeal should be solicited from both the student and the course director. In some cases, at the discretion of the Chair of the Appeal Committee, (who must be someone other than the course director) it may be appropriate to hold a meeting during which the student must state the appeal to the Committee. The Committee will commence a thorough investigation within 30 days of receipt of the appeal. The Committee must complete the investigation and submit its report within 120 days. Deliberation of the committee should address the student's appeal question. The decision of the committee will be final.

6.4 Transfer Credits and Course Exemptions/Waivers

Transfer credits

Credits for graduate courses taken at other institutions may be awarded under certain conditions and must be approved by the Program Director and the Dean of the Graduate School. Program Directors reserve the right to establish degree requirements for all students in their programs. Therefore, students with prior graduate course work are not necessarily exempt from all requirements demanded of Mount Sinai degree candidates.

The courses for transfer credit must be considered appropriate to the degree sought and have been completed with a grade of B or better at an institution of established academic reputation. Courses taken on a pass/fail basis may be used for transfer credit; provided the student provides proof (a letter from the course director or previous Program Director) that a grade of B or better would have been given. Courses for which a master's degree has been awarded may not be transferred to a Mount Sinai master's degree.

The number of credits transferred shall be no more than the number of credits given by that institution for the courses. Decisions regarding transfer credits are not made prior to matriculation. All transfer credits will be assigned a grade of P. Academic credit for courses taken prior to admission to a degree program may be granted for a maximum of 16 credits toward a master's and 40 credits toward the PhD degree.

The application for academic credit for work done elsewhere must contain a list of the courses, with grades, for which the student is seeking credit, and must be approved by the Program Director and the Dean of the Graduate School. In order for credit to be granted, official transcripts showing the courses for which credit is sought must be submitted to the Registrar for approval, unless they are already on file in the student's Graduate School academic folder. Transfer credits do not show on the student's transcript until the requirements for the degree are completed.

Programs that require tuition payment on a per credit basis may decrease the number of tuition-bearing credits by the number of transfer credits.

Course Waivers/Exemptions

On occasion a course waiver may be granted by a particular program even without coursework that will justify granting of credit. A petition for such consideration should be made by the student to the course and/or Program Director and the merit of the petition will then be considered. Upon recommendation by both the Program and course directors, the final granting of the waiver will be made by the Graduate School Dean. Requests for waivers of any course, including Program requirements, must be made in writing within the first weeks of the semester, before the add/drop deadline.

Students seeking exemption from certain courses, based on prior course work, must meet with the course director to discuss the content of the prior course. Exemption from certain courses may require an exemption exam or other assessment. The course director will inform the Graduate School office whether or not the student is exempt from the course in question. The course will appear on the student's transcript as "EX". Students who are exempt from a course may count course credits associated with the exempted course towards the credits for the degree.

6.5 Guidelines for Registration/Cross-Registration

Students conduct their research and take their courses at the Mount Sinai campus. Courses offered in all programs for the academic year are published in two announcements (Fall and Spring) and are available on the Graduate School web page. It is important that students consult their advisors and MTA Directors to plan their programs.

All incoming students will receive their registration materials when they arrive for orientation week before fall classes. Ongoing students can access the Graduate School's student portal for registration information and should meet with their advisors with respect to timely completion of requirements and courses covering their specific training needs. Students who have completed all course requirements and have not reached 72 credits should register for Independent Research. This is an appropriate course only for advanced students who have already chosen a preceptor. Once all MTA course requirements have been met and the student has successfully completed the first two of the three-part Preliminary, s/he will be Advanced to Candidacy. After that, no courses should be taken for graded credits, and the student registers each semester for Doctoral Dissertation Research. Although the student does not register for a seminar and journal club, s/he

must participate in a seminar and journal club each semester.

Students are required to fill out on-line course evaluations for each course taken. These evaluations provide valuable feedback to the Course Directors and the Curriculum Committee and are used to improve course offerings. Evaluations must be completed within 4 weeks of the end of a course. If such evaluations are not completed in a timely manner, students will receive an "Incomplete" on their transcript and may be placed on "academic hold" by the Registrar.

All registration should be completed in a timely manner, on or before the set deadline. A \$100 late fee will be charged to the student for failure to submit the registration materials on time. Students who do not register by the final late registration deadline will be administratively withdrawn from the Program. These students can petition for readmission by submitting an Application for Readmission, with the requisite re-application fee.

The add/drop period lasts 2 weeks. Students who withdraw from a course during this period will not have the course appear on their transcript. Students may withdraw from a course at any time up to 24 hours before the end of the course, but if withdrawal occurs after the add/drop period, the course will be listed on the student's transcript with a "W".

Students who do not meet the requirements of the New York State Immunization Law will not be permitted to register. The Student Health Services Office is required by New York State Law to maintain up-to-date records for each student, including the Periodic Health Evaluation and an annual PPD. Students who do not comply will not be permitted to register. It is the responsibility of the student to make sure that his/her file is complete. Upon request, the Graduate School Office can inform the student if any documents are missing. Students are not permitted to register for courses after the add/drop deadline. If a student is not registered for a given semester, s/he will be administratively withdrawn from the Program and will not be permitted to register for the subsequent semester. That student will have to petition to be readmitted to the Program. Therefore, each student should be sure that s/he is registered for every semester until s/he has deposited the Dissertation.

PhD and MD/PhD students may register for courses in other graduate programs at Mount Sinai (e.g. MD, MPH, MS in Clinical Research, etc.) with the permission of their dissertation advisor, their Program Director, the course director, and the Dean of the Graduate School. The Graduate School will pay the tuition for one single-semester course per year during the research years. Payment of tuition for additional courses will be the responsibility of the student or their dissertation advisor.

In some instances, a student may wish to take a course that is not available at Mount Sinai. Students must receive permission from their dissertation advisor, their MTA Director, and the relevant course director. Payment of tuition for such courses will be the responsibility of the student or their dissertation advisor. Courses taken at another institution will appear on the student's transcript as long as the student follows the proper registration procedure.

6.6 Auditing Courses

A full-time matriculated student may audit a course with the permission of the course director. Students auditing a course do not write examinations or papers and do not necessarily participate in class discussion sections. However, auditors should clarify expectations at the start of the course with the course director and may be required to fully participate in the class. Permission to audit a course must be obtained from the course director prior to the end of the add/drop period. An audited course will appear on the student's transcript with the designation "AU". Credits for a course being audited will not be counted for determining full-time status (international students) or financial aid status.

Non-matriculated students, including employees, who wish to audit a course and have the audited course appear on a transcript as "AU" will be billed at the same rate as for courses taken for credit. A completed Course Audit Form, with all required signatures, must be submitted to the Registrar. Unofficial courtesy auditing is permitted with the permission of the course director. No tuition will be charged and a transcript will not be provided for unofficial auditing.

6.7 Retaking Courses

Students seeking to improve their grade point average (GPA) may retake a course, with permission of the Dean of the Graduate School or the Program Director. If a course is retaken, the original grade remains on the transcript but only the second (retake) grade will be counted in the determination of the student's GPA, even if that grade is lower than the grade previously earned. A student who has earned credit for a course may repeat it once, but will not receive additional credit.

Students cannot receive financial aid to cover the tuition for retaking a course.

6.8 Satisfactory Progress

It is crucial that students, Advisory Committees, and/or Program Directors monitor the students' progress throughout the duration of their academic training. Continued financial support is contingent upon maintaining satisfactory progress at all times. Additionally, failure to achieve and maintain satisfactory progress, after counseling is sought from the Advisory Committee and/or Dean of the Graduate School, can result in academic probation and ultimately, dismissal from the Program.

Under exceptional circumstances, the dissertation advisor, with the support of the student's Advisory Committee, may petition the Dean in writing to let a student continue his/her studies beyond the 7-year time limit for PhD students or 6 years in the PhD phase for MD/PhD students. There is no guarantee that full stipend support will continue under these circumstances and each case will be renewed by the Dean and must be approved by the Dean.

Satisfactory progress is maintained in the following ways for PhD students:

- by matriculation on a full-time basis
- for first year students, by demonstration of potential for research and of timely progress toward the choice of dissertation advisor and Training Area through their rotation activities
- by timely submission of a completed Laboratory Rotation Agreement Form and a completed Laboratory Rotation Evaluation Form for each rotation (see section on Laboratory Rotation)
- by achievement of the 3.0 GPA in the Core Curriculum (see details under General Program Requirements)
- by completion successfully of 1st part of the Preliminary examination by the end of the first year in the Program
- by completion of at least 14 letter-graded credits of coursework
- by having no more than two incomplete grades, unless they resulted from an approved leave of absence which occurred before a final grade could be assigned
- by successfully reaching and passing each of the Program Progress Points by the required deadlines (see details in section on Progress Points), with timely submission of registration and documentation memos
- by meeting with the FULL Advisory Committee at least once a year and submission of a Progress Form following each meeting
- by active participation in journal clubs and seminars
- by demonstration of the ability to grow in research skills and movement towards project goals following the selection of a dissertation advisor
- by completion of at least 72 graduate credits for the PhD degree
- by completion of all requirements for the PhD degree, including defense and deposit of the Dissertation, within the time limits of the Program, i.e., (defend and deposit by June 30 of the seventh year in the Program)
- by developing a research project, under the supervision of one or more faculty members, which results in a thesis that reports the new findings, and is presented, defended and deposited

Satisfactory progress is maintained in the following ways for MD/PhD students:

- by matriculation on a full-time basis
- for first and second year students, by developing an approved rotation program in which progress is made towards the selection of a dissertation advisor and Training Area by the mid second year
- by submission of a completed Laboratory Rotation Agreement Form and a completed Laboratory Rotation Evaluation Form for each rotation
- by completion of USMLE Step I at the end of the second MD year and USMLE Step II at the end of the third MD year (or making specific, approved plans for different timing)
- by achievement of the 3.0 GPA in the PhD Core Curriculum (see details under General Program Requirements)
- by completion of the General Program Requirements for the PhD by the end of the first year in the Program
- by achievement and maintenance of an overall GPA of 3.0 by the end of the first year in the Program
- by completion of at least 14 letter-graded credits of coursework
- by having no more than two incomplete grades, unless they resulted from an approved leave of absence which occurred before a final grade could be assigned
- by successfully reaching and passing each of the Program Progress Points by the required deadlines (see details in section on Progress Points)
- by meeting with the FULL Advisory Committee at least once a year and submission of a Progress Form following each meeting
- by meeting with the MD/PhD Associate Director at least twice each year
- by meeting monthly with the clinical advisors during the PhD phase
- by active participation in journal clubs and seminars
- by demonstration of the ability to grow in research skills and movement towards project goals following the selection of a dissertation advisor
- by completion of at least 72 graduate credits for the PhD degree
- by active participation in the formal clinical refresher during the final year of the PhD phase

- by completion of all requirements for both the MD and PhD degrees within the maximal time limits of the Program, including no more than five years time between the Thesis Proposal and the Defense
- by Defense and deposit of the dissertation before entry into the final clinical clerkships

Satisfactory progress is maintained in the following ways for MS in Biomedical Sciences:

- by matriculation on a full-time basis
- by achievement of the 3.0 GPA in the Core Curriculum (see details under General Program Requirements)
- by completion of at least 14 letter-graded credits of coursework
- by demonstration of the ability to grow in research skills and movement towards project goals following the selection of a dissertation advisor
- by completion of at least 45 graduate credits for the Masters in Biomedical Sciences
- by developing a research project, under the supervision of one or more faculty members, which results in a thesis that reports the new findings, and is presented, defended and deposited

Satisfactory progress is maintained in the following ways for MS in Genetic Counseling:

- by matriculation on a full-time basis
- by achievement and maintenance of an overall GPA of 3.0 by the end of the first year
- by completion of at least 30 letter graded credits of coursework
- having no more than two incomplete grades, unless they resulted from an approved leave of absence which occurred before a final grade could be assigned
- by meeting with the Program Director at least twice each year
- by active participation in journal club, seminars and clinical electives
- by achieving basic genetic counseling and clinical skills in each of the required clinical rotations as defined by the clinical supervisor
- by demonstration of the ability to grow in clinical research skills and movement towards

project goals following the selection of a thesis advisor and project no later than by the end of the first 10 months

- by completion of a least 60 graduate credits for the Master of Science degree
- demonstration of core clinical competencies as defined by genetic counselor supervisors
- by completion at least 50 distinct, supervised face-to-face genetic counseling cases as defined by the American Board of Genetic Counseling
- by completion of all requirements for the Master of Science degree including presentation and deposit of the clinical research project (thesis) within the parameters of the Program

If the dissertation advisor is dissatisfied with the academic progress of a student and is considering removing the student from the laboratory the following steps must be taken:

Document sources of dissatisfaction.

- 1. The advisor will have direct discussions with the student to clarify the issues and to set a plan to correct the problems. A summary of the discussions should be documented.
- 2. If dissatisfaction continues, mediation between the student and advisor should be sought by meeting with the MTA Director and the student's Advisory Committee.
- 3. If required, a discussion between the student, the advisor, and the Dean or Associate Dean should be also sought to determine whether the issues are potentially irrevocable.
- 4. The Dean may place the student on probation for a period not exceeding a semester.

If the student is placed on probation and fails to achieve sufficient academic progress during the following semester, the Promotion Committee will review the Student's status and **may recommend dismissal from the Ph.D. program**.

6.9 Suspension and Dismissal

The Dean of the Graduate School can administratively suspend a student pending committee review or may administratively dismiss a student. Suspensions will generally be imposed for students who exhibit the following: positive toxicology result, disruptive behavior, illegal behavior, egregious misconduct, or failure to meet administrative responsibilities (including financial obligations). Dismissal at the discretion of the Dean of the Graduate School may result when a student is convicted of a misdemeanor or felony, exhibits a serious breach of academic or professional misconduct (including cheating) or after a series of warning following suspension. Any student who fails to comply with going for a requested administrative evaluation or fails to fulfill the requirements that stems from this evaluation will be dismissed from the Graduate School.

6.10 Committee on Promotions

Students in the graduate programs at Mount Sinai School of Medicine have been carefully selected for the demands of graduate study. It is understandable that some students, no matter how qualified, may have difficulty in meeting the graduate program's requirements, such as satisfactory completion of courses and other requirements within a given timeframe and maintaining standards of professional conduct at all times.

The Committee on Promotions will meet at the end of each academic year to review the records and progress of all first-year PhD students. Additional meetings of the Committee may be called by the Dean of the Graduate School when either the Dean, MTA Directors or Graduate Program Directors request that the Committee meet to review a particular student or students. The Committee will make recommendations to the Dean of the Graduate School with regard to promotion, non-promotion, or dismissal from the school for academic or other reasons.

The Committee on Promotions will consist of a chairperson appointed by the Dean, one of the Co-Directors of each MTA, and the Program Director, or their designate, of the graduate program in which the student(s) is matriculated.

The Dean's decision will be rendered verbally to the student by the Dean or Program Director and will be confirmed in writing to the student. Appeals of decisions of the Committee on Promotions can be made only to the Dean of the Graduate School within two weeks of the Committee's decision. The two-week deadline will begin as soon as the student has received the verbal decision.

6.11 Appeals Process

Students who have been placed on probationary status or asked to leave the Program because of lack of Satisfactory Progress may appeal these actions by petitioning the Dean of the Graduate School to have an Academic Appeals Committee meeting convened. The student will have the opportunity to present to that Committee. If a student has already identified a thesis advisor, he/she will also be able to speak with the Committee at that time. The Academic Appeals Committee will make a recommendation to the Dean of the Graduate School. Once a student decides to come before the Academic Appeals Committee, rather than voluntarily withdraw from the Program, s/he relinquishes the right to withdraw from Mount Sinai School of Medicine. If the Academic Appeals Committee recommends dismissal, the student's transcript will so indicate. A student in the first year who does not successfully complete the Core Curriculum will be permitted to maintain student status during the appeals process or until June 30 of that school year, whichever comes first.

6.12 Vacation Policy

In general, the Graduate School anticipates that students will take two weeks of vacation each year, exclusive of travel to scientific meetings and days explicitly taken off for study and

preparation for examinations. Individual circumstances may cause a specific student mentor pair to agree to an individual vacation plan that seems appropriate given the nature of the student's efforts over a period of time, particular family circumstances, parental leave, etc. Students must be sensitive, however, to their obligation to inform the thesis advisor (or the rotation advisor of all proposed and planned absences so that the flow of experimental work can similarly be planned and discussed).

In the event of an unanticipated absence, students should make every effort to communicate with the laboratory and the Graduate School Dean as soon as possible. Any unexplained absence will constitute lack of satisfactory progress in the Program and can result in academic probation, administrative leave of absence, and ultimately, dismissal from the Program.

6.13 Leave of Absence & Withdrawal

A student who wishes to interrupt his/her graduate studies for not more than one academic year due to serious illness or compelling personal reasons, may request a leave of absence. If the leave is approved by the Dean of the Graduate School the student will be reassured of readmission at the end of the approved leave. Such approval can only be obtained if the student maintains satisfactory progress (as defined earlier) and has the approval of the thesis advisor, his/her Advisory Committee and the Multidisciplinary Training Area Directorship.

Students, who fail to follow any conditions of the approval, will be administratively withdrawn from the Program. If the student wishes to return at a later date, s/he must apply for readmission. Students on a leave of absence are not eligible for any benefits associated with maintenance of student status, including the stipend, tuition, health insurance and travel award for the duration of the leave. Students on a medical leave of absence may request continuation of housing privileges. Students on a personal leave of absence may request student-housing privilege based on availability.

For financial aid purposes (loans), a student may be out of school on an approved leave of absence for up to 180 days with no repayment consequences. After 180 days, the last date that the student was matriculated as a full-time student will be reported to the lender as the "out of school" date. A student will then go into repayment status immediately. Once the student returns to full-time matriculated status, the loans could then be deferred. However, there would no longer be a 180 days grace period once the student graduates, or leaves school for any other reason, including withdrawal or another approved leave of absence.

Students must submit a <u>Leave of Absence Request Form</u> (available in the Graduate School Office) with a letter stating the reasons for the leave, if he/she is requesting a personal leave or if the request is for medical reasons, a doctor's letter should accompany the form. International students can only request a leave of absence for medical reasons because of visa requirements and should consult with Mount Sinai's International Office personnel to discuss about their status while on leave. Students should notify the Office of Student Services and the Registrar when they return from a leave of absence. If the leave of absence is for medical reasons, a doctor's letter should confirm that the student is eligible to return.

NB The period of an authorized leave is formally included in the Program time limit. A student who was on an approved leave of absence may petition the Dean of the Graduate School for an extension of the Program time limit, encompassing the time period of the leave of absence. This petition must have the support of the student's thesis advisor, Advisory Committee and Multidisciplinary Training Area Directorship. Such requests will be considered under circumstances that merit such special consideration.

Requests for an extension of a leave of absence must follow the same procedure as indicated above. Request for voluntary withdrawal from the Program must be made by submission of the Request for Withdrawal Form, with all required signatures. To resume doctoral study a former student must apply for readmission.

6.14 Parental Leave

A student anticipating the need for parental leave should discuss this with their thesis advisor well in advance (about 4-5 months) of the anticipated leave. Parental leave must be approved by the program director and the Dean of the Graduate School. During the period of parental leave, completion of academic assignments (exams, written assignments, and any other academic requirements) and academic progress milestones may be postponed for up to 12 weeks.

Recognizing that mothers-to-be may need time before a child is born as well as time to recover from the birth and to care for their new babies, female graduate students will be allowed 8 weeks paid maternity leave to be taken in any combination of pre-natal and post-natal time. During this leave, full-time student status will be maintained, i.e. health and housing benefits will continue and visa status will remain unchanged. If a student chooses to continue a leave beyond 8 weeks, she is entitled to up to 12 weeks under the Family and Medical Leave Act. These additional 4 weeks will be taken from vacation time, followed by unpaid leave. During the unpaid leave, all benefits (health, housing) will be suspended. International students should be aware that their student status might be compromised by unpaid leave.

In the event that medical complications require more than an 8-week leave, students will be covered by the medical leave policy of the Graduate School.

Students on training grants or individual fellowships must abide by the leave policies of the institutional NRSA or individual fellowship. In the event that the amount of leave allowed by an external funding agency is less than what the Graduate School allows, the Graduate School will pay the stipend and health benefits of the student for the time not covered by the grant or fellowship, such that the student will receive the equivalent of 8 weeks paid leave.

Students who adopt a child will be entitled to the same 8-week maternity leave already described for the birth of a child, to be taken in any combination of pre and post adoption time.

Fathers, or partners in a legal domestic partnership, will be allowed 2 weeks of paid parental leave for either childbirth or adoption. The leave can be taken as needed either before or after the

arrival of the child.

If a graduate student receives a stipend from a dissertation advisor's grant, and if continuing the stipend for the period of the parental leave constitutes a hardship for the dissertation advisor, the dissertation advisor should discuss the possible limitations of continuing the student's support during the period of the parental leave with the Dean of the Graduate School. The Graduate program in which the student is enrolled should be sensitive to such situations and negotiate with the dissertation advisor a suitable strategy for continuing stipend support of the student.

6.15 Full-time Equivalency Status

Graduate students in the basic science graduate programs who are registered for less than 9 credits may, in certain situations, be granted "full-time equivalency" by the Dean of the Graduate School. Typically, full-time equivalency is granted if one of the following applies:

- You are taking 7-8 credits of coursework, and working as a teaching or research assistant for your program
- You are completing or have fulfilled all coursework requirements and are working fulltime on thesis or dissertation research

Students who are granted full-time equivalency will be designated as "full-time" or "fully-matriculated" by the Registrar.

Foreign graduate students who enroll in less than 9 credits and who are not eligible for full-time equivalency will be put on hold pending a decision by the Office of International Personnel regarding their visa status. This needs to be determined by the end of the second week of the term or their F-1 visa status will be in jeopardy.

6.16 Special Matriculation Status for Graduate Students

There are instances when a student will no longer be eligible to receive a stipend from either his/her dissertation advisor or the Graduate School. Provided he/she is in good academic standing and continues to pay the \$100 maintenance of matriculation fee, the student is entitled to retain e-mail and library privileges, purchase his/her own health insurance at his/her own cost through MSSM until he/she deposits his/her thesis.

6.17 Non-Matriculated Students

Non-matriculated students may register for courses in the Graduate School by filling out an application to the Graduate School as a non-matriculated student and paying the \$80 application fee. The Course Permission Form for Non-Matriculated Students must be filled out and submitted to the Registrar after obtaining all the required signatures. Permission of the Course Director must be obtained in advance of filling out the form. Students will be billed for the appropriate amount of tuition and will be entitled to receive a transcript.

Non-matriculated students may obtain credit for research done at Mount Sinai School of Medicine under the supervision of a member of the Graduate Faculty. The faculty mentor will determine the grade (P/F). The student must provide a description of the research project and the anticipated amount of time (hours/week per semester) s/he intends to spend performing the research. The Graduate School will review the proposal and determine the maximum number of credits to be allocated. The student will pay the appropriate amount of tuition (\$850.00/credit for the 2012-'13 academic year) and will be entitled to receive an official transcript documenting the number of credits received and the grade (P/F).

6.18 Visiting Scholars

Students who are pursuing a graduate degree at another institution and have been invited by a MSSM department or laboratory/center to do research in their field of study may apply for Visiting Scholar status. International Visiting Scholars must contact the Office for International Personnel to discuss visa and reporting requirements.

Registration: A Visiting Scholar must fill out an application, available in the Admissions Office. This category is distinct from a non-matriculated student.

Duration of stay: Visiting Scholars will be admitted for the period of time specified in the initial invitation letter. A Visiting Scholar who wishes to continue beyond the period initially agreed upon has to submit a letter of approval from the home institution and a letter from the host department or laboratory/center requesting the extension.

Health insurance: A Visiting Scholar must provide proof of basic health insurance coverage. International students must have insurance that meets all the requirements specified by the federal regulations for J-1 students.

Financial aid: A Visiting Scholar is not eligible for financial aid services from MSSM.

Employment: A Visiting Scholar may receive compensation for work done for the host research group. In compliance with federal regulations, international visiting students are not allowed to have any other employment, either on-campus or off campus. Students on a visa must discuss employment regulations with the Office of International Personnel.

Housing: Mount Sinai does not guarantee housing for Visiting Scholars and their requests are determined based on availability.

Visiting Scholars are expected to follow the same guidelines required for incoming students. Visiting Scholars must (i) complete a physical examination with their own doctor or at Student Health Services; (ii) take the toxicology-screening test; and (iii) take the HIPAA test. All Visiting Scholars will be subject to a criminal background check.

7. Registrar's Office

The Mount Sinai School of Medicine Registrar's Office supports teaching and learning by maintaining the integrity of academic policies and the student information system. The Registrar's Office is the steward of MSSM's student records from application to degree conferral in perpetuity. The Registrar's key functions in carrying out this mission focus on guarding the integrity and security of all student records in accordance with ethical and legal standards, maintaining accurate and timely records of academic progress in order to provide definitive student status, and providing students with enrollment services necessary to pursue their educational goals.

To that end, below please find information pertaining to the policies and procedures under the purview of the Registrar's Office. For additional information about services and academic policies, please contact the Registrar Staff, 13-30 Annenberg, 212-241-6691

7.1 Academic Standing

Students may be terminated from a degree program at any time if, in the judgment of the Graduate School or the Medical School, a student fails to make satisfactory progress towards the completion of the degree (regardless of grades).

Status of probation, suspension, and dismissal are accurately and permanently reflected on a student's transcript.

Good Standing

A student will be considered in good standing if they are making academic progress in their grades, meeting the academic expectations of their degree program, and remain free of academic or administrative "holds."

Probation

Students in poor academic standing may be placed on probation by the Dean for Medical Education or the Dean for the Graduate School, or their appointed representatives: Academic/Student Affairs Associate Deans in each school, the Promotions Committees, or Graduate School Program Directors. Once a student is placed on academic probation, scholarly progress must be made within a specific time period. Academic expulsion is the likely consequence if performance continues to be unsatisfactory. Students on probation are considered enrolled.

Suspension

Academic suspension may occur when the school withdraws the student for failing to maintain satisfactory academic progress or to meet standard educational goals of the degree program. Students who are suspended from the School are required to spend a defined period of time, away from the School. During this period, the student may be required to successfully complete activities defined by the School's Dean, Promotions Committee, or Program Director (in lieu of a

Promotions Committee) if they are to be considered for readmission to Mount Sinai School of Medicine. Students on suspension are not considered enrolled. See specific sections related to Disciplinary processes in each specific program's section of the handbook.

7.2 Withdrawal and Readmission

Clearance

Clearance to withdraw is required. Students must complete the appropriate paperwork found in the Registrar's Office.

Voluntary Withdrawal

A student may voluntarily withdraw from school at any time, upon application to the Associate Dean for Student Affairs (MD students) or the Associate Dean of the Graduate School (PhD, Master's students). A student who voluntarily withdraws may apply for readmission at a later time. Future reinstatement may be denied either at the time of the withdrawal or at the time of application for reinstatement for reasons deemed sufficient to the Admissions Committee. The Office for Student Affairs may require an Administrative Evaluation prior to acceptance of a withdrawal. Failure to comply would result in dismissal. For further information on withdrawing for a specific program, refer to section 6.13 of this handbook.

Administrative Withdrawal

In certain circumstances, a student may be administratively withdrawn from the school. Examples would include a student who has exceeded two years on medical or personal leave or a student who fails to meet the technical standards required for medical education. A student who chooses to withdraw rather than be dismissed, either on appeal from a committee decision or after failing Step I and Step II three times will be considered to have administratively withdrawn.

Readmission

At least three months prior to the requested date, students seeking readmission into the School of Medicine must submit paperwork to the Associate Dean of Admissions. Petition for readmission can be found in the Registrar's Office.

Holds

The Mount Sinai School of Medicine utilizes a system of holds when students fail to meet standard educational obligations. A "hold" prevents the release of a student's academic transcript and freezes a student's registration status so that they may not continue on to the next term until the hold is appropriately addressed by the student. All financial obligations must be satisfied before a student can register for another term and continue their studies and/or research. Students with holds will not be eligible for financial aid refunds until the hold is appropriately addressed by the student.

Types of MSSM Holds: Academic, Administrative, Health, Housing, Financial and Registrar.

7.3 Transcripts

Official copies of your Mount Sinai transcript can be requested when a stamped and sealed copy of your academic record is required. Requests for official transcripts require the signature of the student/alumnus requesting the transcript. Document request forms can be found at:

http://www.mssm.edu/education/student-resources/registrar/graduate-school-forms

Transcripts and/or the MSPE cannot be sent out for students who are not in "good standing". This includes but is not limited to academic, financial, housing, library, and health holds. To be considered "official" a transcript must:

- Bear the Registrar's signature.
- Be stamped with the Seal of the Mount Sinai School of Medicine.
- Be sent directly from the Registrar's Office to a designated person or institution.
- Be on official transcript paper.

Students may request an unofficial copy of their transcript for their personal records. This will be stamped "Student Copy" and may not be used for official purposes.

Credentials

All offers of admission are provisional, pending receipt and evaluation of final transcripts. Transcripts must be sent directly from the appropriate Registrar's Office to the Mount Sinai School of Medicine Registrar's Office. These and all other materials requested by the Registrar in conjunction with the admissions process must be received to complete a student's enrollment. Submission of false or misleading information in the application materials or in connection with the application process will be considered by the Admissions Committee and/or the Student Promotions Committee as grounds for withdrawal of the acceptance offer, dismissal, or rescission of degree.

8. Tuition and Financial Aid

8.1 Tuition

Payment may be made by personal check, bank draft, or money order, drawn to the order of Mount Sinai School of Medicine. Tuition and fees may be paid in installments the first day of each term. For payment plan and/or credit card payment arrangements, please contact Tuition Management Systems, an independent company, at (800) 722-4867. The Board of Trustees reserves the right to revise all fees, including tuition.

All financial obligations must be cleared prior to completion of each academic year. Students who have not cleared their account will not be allowed to re-register, receive a transcript or letter of recommendation, have academic credits certified, receive a leave of absence, receive other student services, attend class/clerkship for the current academic term, or have a degree conferred. There is an interest charge of one percent per month (1 percent/month) on balances not covered by financial aid and/or tuition payment plan. At the end of the academic year, unpaid balances will be turned over to an outside collection agency.

8.2 Tuition Refund Policy

Students who withdraw from the institution during an academic term will receive a tuition refund based on the below institutional schedule. Tuition refunds will be calculated based on the date the student submits their withdrawal form to the Registrar's Office.

Withdrawal through the first calendar week of the term	100% of Tuition Only
Second calendar week of classes	75% of Tuition Only
Third calendar week of classes	50% of Tuition Only
Fourth calendar week of classes	25% of Tuition Only
After the Fourth week of classes	NO REFUND

Students whose tuition is charged per credit hour and who choose to drop course(s) past the approved drop/add period, will be refunded based on the above schedule. Students should note that dropping classes might cause a status change from full-time to part-time. Changing the status or the number of credit hours in a program may have significant academic and/or financial consequences. Consider consulting the Office of Financial Services and your advisor before making any changes to your schedule.

For students receiving federal financial aid processed through the Office of Financial Services, be advised that all funds from federal Title IV programs will be returned to the government according to federal regulations.

No refunds will be granted to students dismissed or suspended. The institution reserves the right to dismiss a student whose academic standing or general conduct is considered unsatisfactory.

8.3 Financial Aid

General Policy

Mount Sinai School of Medicine consistently provides as much financial assistance as possible to all students who are in good academic standing, maintain satisfactory academic progress, meet filing deadlines and require financial assistance in order to attend the School. Admission to the School of Medicine is completely independent of financial requirements. Financial aid decisions are made on the basis of documented need without discrimination due to race, sex, color, creed, age, national origin, disability, military status, marital status, religion, genetic disposition, citizenship, or sexual orientation.

Applications

Master's degree students who are interested in applying only for Federal Stafford Subsidized/Unsubsidized loans (up to annual totals of \$8,500/\$12,000) can supply FAFSA data on the Web at http://www.fafsa.ed.gov. Reapplication is required annually for all loan and scholarship recipients.

Exit Interviews

Students who have been issued loans from MSSM controlled funds (Perkins, Sinai Endowments, etc.) and recipients of Stafford Loans and other federal loans will meet with a representative of the Office of Student Financial Services prior to graduation or separation. Loans will be summarized; terms of repayment, deferment and responsibility will be discussed.

8.4 Debt Management and Counseling

Throughout the student's education the Office of Student Financial Services is available to discuss indebtedness, career choices, and money management issues. Graduating students should be aware of the requirements of the various external student loan programs in which they may have participated. It is important to maintain contact with Mount Sinai School of Medicine and the appropriate lending institutions, to understand the terms of each loan program, and to plan for repayment. Timely loan repayments are essential in establishing a good credit rating. The extent that loan indebtedness will impact on future expense budgeting can be considerable. In order to assist student in tracking loans, interest rates and various conditions of the loans, the Office of Student Financial Services suggests that one of the Web sites below be consulted for debt-management information and encourages students to avail themselves of these tools. The methodology converts cumulative educational debts into estimates of approximate periodic repayments over a ten-year period.

https://www.aamc.org/ http://www.accessloans.org

8.5 Length of Time to Complete Degree

A student will be permitted a maximum time limit to complete a degree:

Degree	Normal Limit (Years)	Maximum Limit (Years)
M.D.	4	6
M.D. / Ph.D.	8	10
Ph.D. (Biological Sciences)	5	7
M.S. Genetic Counseling	1.5	2
MS Biomedical Sciences	1.5-2	3

These limits are applied incrementally, e.g., by the end of the third year of enrollment in the M.D. program a student must have completed and satisfactorily passed at least two full years of the curriculum. These time limits include any time for personal or medical leave of absence, but do not include approved periods of Special Matriculation for research or remediation. In the Ph.D., M.D./Ph.D., and M.S. programs, benchmarks of satisfactory progress must be completed as outlined in the specific program requirements. Students who are approaching the time limit for completion will be reviewed with enough notice so that a plan is in place to enable the student to complete the requirements by the end of the time limit.

8.6 Completion of Course Requirements

A student must complete with passing grades at least 75 percent of the full-time curriculum for which s/he was enrolled in any academic year. A student who does not meet this standard will be placed on financial aid probation for one term. If the standards are not met at the end of that term, suspension of all aid is in effect until the standards are met.

9. Responsible Conduct in Research

General Statement

Students are expected to maintain the high standards of ethical and personal conduct that are the prerequisite for a productive research environment. Students are required to participate in special seminars about the ethical issues and dilemmas that arise in research environments, and are encouraged to seek guidance with respect to optimal forms of record-keeping. Thesis advisors should familiarize their students with expected practices.

Academic Integrity

Failure to adhere to Mount Sinai's standards of academic integrity will be treated as serious offenses that are inconsistent with the goals and activities of the academic environment. Some basic types of behavior that are unacceptable include, but are not limited to, the following examples:

- 1. Cheating: using unauthorized notes, study aids, or information on an examination; altering a graded work after it has been returned, then submitting the work for re-grading; allowing another person to do one's work and submitting that work under one's own name; submitting identical or similar papers for credit in more than one course without prior permission from the course instructors.
- 2. Plagiarism: submitting material that in part or whole is not entirely one's own work without attributing those same portions to their correct source.
- 3. Fabrication: falsifying or inventing any information, data or citation; presenting data that were not gathered in accordance with standard guidelines defining the appropriate methods for collecting or generating data and failing to include an accurate account of the method by which the data were gathered or collected.
- 4. Obtaining an Unfair Advantage: (a) stealing, reproducing, circulating or otherwise gaining access to examination materials prior to the time authorized by the instructor; (b) stealing, destroying, defacing or concealing library materials with the purpose of depriving others of their use; (c) unauthorized collaborating on an academic assignment (d) retaining, possessing, using or circulating previously given examination materials, where those materials clearly indicate that they are to be returned to the instructor at the conclusion of the examination; (e) intentionally obstructing or interfering with another student's academic work, or (f) otherwise undertaking activity with the purpose of creating or obtaining an unfair academic advantage over other students' academic work.
- 5. Aiding and Abetting Academic Dishonesty: (a) providing material, information, or other assistance to another person with knowledge that such aid could be used in any of the violations stated above, or (b) providing false information in connection with any inquiry regarding academic integrity.
- 6. Falsification of Records and Official Documents: altering documents affecting academic records; forging signatures of authorization or falsifying information on an official academic

document, grade report, letter of permission, petition, drop/add form, ID card, or any other official University document.

7. Unauthorized Access to computerized academic or administrative records or systems: viewing or altering computer records, modifying computer programs or systems, releasing or dispensing information gained via unauthorized access, or interfering with the use or availability of computer systems or information.

All graded essays, papers, and problems, and all written materials submitted as part of the Thesis Proposal or the Thesis, must be entirely the work of the individual student or referenced appropriately. Even editing (e.g. syntax assistance for foreign students) should be sought only if explicit permission is obtained.

If faculty observe or have knowledge of students engaging in any of the above-mentioned activities, the student should be confronted by the relevant faculty member at once. Students and faculty who believe that any of the above mentioned activities have occurred should report the matter in writing to the Dean of the Graduate School immediately. Within one week of notification of the infraction, the Dean will constitute a 3-member ad hoc committee to review the allegation of academic misconduct. In addition, the student's first-year advisor, or MTA Director for later year students, will be added as a non-voting member of the ad hoc committee. The student may invite one faculty member to the hearing to act as the student's advocate. A hearing should be held as soon as all parties can agree on a date and the committee will decide on appropriate consequences.

If it is determined that the student has been involved in any form of academic misconduct, the student will receive an F for the assignment or course and may be at risk for dismissal from the program. If the student wishes to appeal the decision of the Course Director or of the ad hoc Committee, this must be put in writing to the Dean of the Graduate School within two weeks of receiving notification of the consequences of the incident of academic misconduct. The issue will then be pursued, via an appropriate tribunal, in accord with institutional policy on research integrity.

(Adapted from http://www.northwestern.edu/uacc/defines.html; used with permission, D. Garrison)

9.1 The RCR Course and Curriculum

All incoming students must complete a formal 1-credit course in Responsible Conduct of Research. The class employs a combination of texts, documents, role-playing exercises, faculty and student discussions and small group discussions. Classes cover fundamental issues of training ethics, authorship, biohazards, relationships in the research environment, mentoring, conflicts of interest, record keeping, sharing reagents, etc. Attendance is mandatory to all sessions in the course.

The RCR curriculum continues with MTA-sponsored sessions.

9.2 Policies and Procedures on Ethical Practices in Research

The School hereby affirms its commitment to the highest ethical standards in the conduct of scientific research, the promotion of original research of high quality, and the importance of academic freedom. It also acknowledges that unethical conduct in research is extremely serious and threatens these principles. The School is, therefore, committed to preventing unethical conduct in research from occurring and, should it occur, to dealing with it swiftly, fairly and thoroughly.

Procedures for handling allegations of misconduct in research are described in detail in the Faculty Handbook (Chapter VI) at the following URL: http://www.mssm.edu/about-us/services-and-resources/faculty-resources/handbooks-and-policies/faculty-handbook/research-environment/research-integrity .

Allegations of misconduct in research should be reported to the Institution's Research Integrity Officer (RIO) who will have primary responsibility for implementation of the institution's policies and procedures on unethical practices in research. The RIO has general responsibility for overseeing the investigation of all allegations of unethical conduct in research and shall be available to:

- Consult confidentially with persons uncertain about whether to submit an allegation of unethical research practices and if the allegations do not involve unethical practices in research, refer the individual to other offices with responsibility for resolving the issue.
- Receive allegations of suspected unethical research practices and work with the Research Integrity Committee to determine and pursue the appropriate method for investigating and resolving these allegations.

9.3 Manuscript Policy

In conformity with the principles of academic freedom, faculty members are not required to obtain prior approval before submitting a manuscript for publication or to amend such manuscripts to comply with suggestions made by others. However, it is recommended that faculty members provide Department Chairpersons with copies of manuscripts prior to publication.

Student Submission of Manuscripts

No graduate student may submit a manuscript to a journal from the Graduate School of Biological Sciences, Mount Sinai's School of Medicine or describe work conducted in the Program without review and approval by a faculty member. That review should include the appropriateness of the authorship(s) and acknowledgment(s) of grant support, as well as the substance of the report. Students should similarly subject all extramural applications to faculty review.

9.4 Policy on Responsibilities of Authors and Data Retention

Responsibilities of Authors

A clear designation, delineation and acceptance of authorship responsibility has been established which requires the following formal procedure for the sign-off by all coauthors of all publications:

- A checklist will be signed by each author to signify that each coauthor has read the final submitted manuscript and verified the accuracy of the data bearing on his/her contribution.
- The checklist will indicate the responsible author for the paper.
- The checklist will stipulate the storage site of the data from which the publication is derived.
- The responsible author will be responsible for the receipt and retention of these statements and to make a "best effort" to obtain signatures from coauthors (see 4.A-1, above) who are not or no longer on the faculty of Mount Sinai School of Medicine.

Data Retention

All original laboratory data books or journals, etc., from which a publication is derived, must be stored in the laboratory for a minimum of six years from the date of publication. If the senior author leaves Mount Sinai School of Medicine before the six year period elapses, he/she will be required to retain and make available, if requested, to Mount Sinai School of Medicine all these data until the completion of this minimum time period. In the case of large ongoing database related research, the responsible investigator must retain the pertinent mass data storage device (hard drive, tape, disk, etc., not necessarily in hard copy) containing the data on which a publication is based. The stored data can be used for verification of data, as well as the base for ongoing studies of the same project. In the latter instance, however, a clarifying statement that describes the nature and the composition of the reutilized and incremental data should accompany the publication. The data storage device cannot be reused for unrelated projects. Although it is understood that this rule governing database storage may not be appropriate in all situations and over time, individual modifications must be approved by the Dean. For additional information see the Mount Sinai School of Medicine Handbook for Research (http://www.mssm.edu/about-us/services-and-resources/faculty-resources/handbooks-andpolicies/research-handbook).

9.5 Policy and Procedures on Protecting Whistleblowers

The School of Medicine strongly believes in the importance of protecting whistleblowers from retaliation and addressing good faith allegations of such retaliation. Accordingly, the School affirms that it will adhere to any applicable policies and procedures promulgated by federal or

other oversight agencies in dealing with such allegations. Whistleblower complaints of retaliation may be brought, where appropriate, to the School's Faculty Relations Committee (see Faculty Handbook, Chapter III), Harassment Grievance Board (see Faculty Handbook, Chapter III), or Department of Human Resources.

Copies of the policies and procedures of the Harassment Grievance Board are available from the Office of the Dean, Reserve Section of the Levy Library, House Staff Affairs Office, Postdoctoral Affairs Office, Office of the Graduate School, and Office of Student Affairs. Human Resources policies are available from the Department of Human Resources.

9.6 Policy on Financial Conflict of Interest in Research

As an academic institution, The Mount Sinai Medical Center ("Mount Sinai") has an obligation to assure that its scientific and clinical research is conducted pursuant to the highest standards of ethical conduct free from any improper external bias. At the same time, Mount Sinai encourages scientific collaboration with industry and supports collaborative research geared towards developing new and improved diagnostic and therapeutic products. Mount Sinai appreciates, however, that these economic relationships with industry have the potential for directly and significantly affecting the approval, design, conduct, monitoring or reporting of a research study. Situations can occur in which an independent observer might reasonably conclude that the potential for individual or institutional profit could influence the outcome of a research study. Even in the absence of an actual conflict of interest, such situations may require actions to minimize the appearance of a conflict.

Therefore, to safeguard the academic integrity of both Mount Sinai and its investigators, the institution has adopted a rigorous conflicts policy predicated on full disclosure and appropriate management. The Policy sets out the requirements for disclosing potential conflicts of interest in research and specifies the procedures for reviewing such disclosures and determining what corrective measures, if any, should be instituted. Furthermore, the policy subjects clinical trials that evaluate the safety and efficacy of a drug, medical device or treatment, and research on technology in which the Investigator/Covered Person and/or the Institution has an ongoing financial interest, to the most rigorous review and stringent conditions.

This Policy is based on the standards set forth in the federal regulations governing research funded by the Public Health Service (PHS) or the National Science Foundation (NSF) (42 CFR Part 50 Subpart F) and the recommendations promulgated by the Association of Academic Medical Centers.

http://www.mssm.edu/static_files/MSSM/Files/About%20Us/Services%20and%20Resources/Facult y%20Resources/Handbooks%20and%20Policies/Administrative%20Revisions%20to%20FCOIR%20Policy%2002-09-11.pdf

10. Student Services

10.1 Career Development

The Graduate School and members of the Graduate Faculty actively support the student run Graduate School Career Services (GSCS). This group organizes regular seminars and workshops that increase the students' awareness about the wide range of career options that may be of interest to students. The group also provides role models and guidance to students as they move toward the careers they seek. Invited speakers have included members of our own Graduate Faculty, alumni and individuals from a wide array of careers.

Our alumni are another source of information and guidance. They have been generous and enthusiastic with their time, effort and mentorship. They return individually and in groups to discuss their own career paths with current students in fora provided by the Graduate School.

The Graduate School is a charter member of the New York Science Alliance, a citywide consortium sponsored by the New York Academy of Sciences. The Alliance sponsors workshops/symposia with dynamic speakers where a variety of career paths are explored. An annual event is "What can you be with a PhD?" which is organized by New York University and sponsored by research and academic institutions in the tri-state area, including Mount Sinai's Graduate School of Biological Sciences.

10.2 International Student Services

The Office of International Personnel together with the Graduate School of Biological Sciences co-ordinate services for international students who have been accepted to one of the school's graduate programs. The F-1 visa for Mount Sinai's international students is sponsored by Mount Sinai School of Medicine. Upon acceptance into one of the programs at Mount Sinai, the student will be given the Application for Certification of Eligibility (I-20) Form. This form should be duly filled out and returned either in person to the Office of International Personnel at 320 94th Street, 5th floor or by fax at (212) 731-7804. All international students must register with the Office of International Personnel Office within 15 days of matriculation at Mount Sinai and must notify them of any changes in their academic program, enrollment status or if they plan to leave the country since their visa status may be at risk and appropriate action must be taken prior to leaving the country. Students must show proof of a valid I-20 before the fellowship package can be activated. It is the student's responsibility to make sure that s/he is always in status, as mandated by the US Homeland Security.

All visa questions should be addressed to the Office of International Personnel at (212) 731-7744.

10.3 The Library

Overview

The Levy Library supports the education, research, and clinical information needs of the Mount Sinai Medical Center. The library provides an extensive collection of biomedical databases, e-journals, e-books, and print resources. The recently renovated library, located on Annenberg 11, is an inviting environment designed to facilitate research, study, and collaboration. The 33,000 square foot Gustave L. and Janet W. Levy Library provides quiet study areas as well as space for collaboration and teaching. It offers a large collection of books and journals (primarily in electronic format) and important reference and database information resources. The library licenses productivity software for faculty and student use, including statistical packages, analysis software, Adobe and Microsoft products and security software. Personal computers in the library allow for on-site accessing of the collection, and are also available to teach users how to navigate electronic resources and software.

http://www.mssm.edu/about-us/services-and-resources/levy-library

Library Cards, Hours, Circulation

Incoming students will be registered to use the library upon presentation of their ID card at the Circulation Desk.

A schedule of fines for overdue material is posted at the Circulation Desk.

Reference and Database Systems

Reference librarians provide instruction in the use of the library and its resources, including print and computer-based materials, audiovisuals, and bibliographic and full-text databases, journals, and books. The curriculum includes library science and medical informatics components and there are computers in the reference area of the library for database searching, Internet access, and use of full-text information sources on the library network.

Librarians also provide guidance in information search strategy and assist in location and verification of bibliographic and factual data. Reference services are provided at the Reference Desk and by telephone (ext. 47793).

Media Resource Center

A Media Resource Center (MRC), located on the 11th floor of the Annenberg Building, contains resources to assist in learning. Audiovisual programs and related hardware, which supplement the curriculum, are also available in MRC. Included are slides, video and audiocassettes, videodiscs, and x-rays. The computers are networked to a school-wide network that supports educational programs. Media Resource Center staff work with faculty on developing course materials that are available through http://webed.mssm.edu. In addition to required course materials, there are reviews, tutorials, and patient simulations in basic and clinical sciences available in the MRC. Computer software is available which supports word processing, file management, electronic spreadsheet, statistical analysis, and other functions. Printers are available to print results.

Additional computers are located in a classroom where numerous educational programs are offered, including basics of microcomputers, how to access informational data bases such as the National Library of Medicine's MEDLINE file, Internet resources, e-mail, and use of various software packages. Instruction is provided both to groups and individuals. Another 36 computers are available for student use in the multidisciplinary laboratories on the 12th and 13th floors of the Annenberg Building. Computers are also located in the Levinson Student Center in the Annenberg lobby.

Electronic Mail and Archives

Every student will be assigned an MSSM email. The principal manner of communication between students, faculty, and administration is e-mail. Every student should check his/her e-mail daily. Mail can be accessed from computers in the library, the laboratories or from home. Accounts are created by the Levy Library Support Desk. E-mail class lists are created by library staff for use by class members and faculty. The Library's Support Desk staff provides support to students living in Aron Hall as they connect to the School's network. On the back of the agreement for e-mail service is the code of conduct for using e-mail. All students must be aware of and abide by these policies.

http://www.mssm.edu/about-us/services-and-resources/computer-services/policies/email-usage

Documentation, including paper records, oral histories, video recordings, photographs, artifacts, and memorabilia relating to The Mount Sinai Hospital, Mount Sinai School of Medicine, and The Mount Sinai Medical Center are available in the Archives. Among the earliest records are the original minutes of the Hospital Board dating from 1852. The Archives is open by appointment (ext. 47239).

10.4 Medical Insurance

All graduate students are eligible for Hospitalization/Major Medical insurance. United Healthcare is the health care provider and students should visit their website at www.uhcsr.com to identify a primary care physician or specialist.

For continuing students, open enrollment occurs in the month of July for the upcoming academic year. At that time, students have the option to enroll, disenroll, or change their insurance elections. No other changes will be processed for the year unless students have a specific qualifying event. Qualifying events include birth of a child, adoption, marriage, or divorce. In the case of a qualifying event, students only have 30 days from the date of the qualifying event to change their insurance benefits. Students who have inquiries regarding enrollment for medical insurance should contact Student Services at (212) 241-5245 for information.

NB:

Medical insurance coverage will end on the last day of the month in which the student terminates by depositing a thesis, unless the student terminates on the first day of the month, in which case, benefits will terminate on that day.

The MSSM Student United Healthcare coverage provides coverage for physician and hospital services through a network of participating physicians, laboratories, and diagnostic centers. These participants are listed in the provider book, located at www.uhcsr.com. The SHC center will use the network physicians for consultation referrals but it is up to the student to verify that the provider is in network prior to the appointment (as physicians' affiliations with insurance companies change frequently). There should not be any charge to you for the laboratory tests or x-rays if a participating laboratory is used. Specific coverage is outlined in the policy guide on the www.uhcsr.com website.

Prescriptions are available for generic and brand medications with co-payment in the Mount Sinai Employee Pharmacy, provided the medication prescribed is in the Pharmacy formulary. Students who receive prescriptions for medications not carried by the formulary can obtain prescriptions at a local drug store.

Beginning in 2012, the Open Enrollment period for students takes place each July. During the month, students will have access to the Sinai benefits site, www.mtsinaibenefits.com to update their benefit choices. During this time period, students enroll or disenroll in any combination of health, dental, and vision coverage. However, students must always carry basic health insurance. If a student disenrolls from the Sinai plan, they must file a waiver form in the Student Services Office and present proof of insurance from another source. When a student marries, has a child, or goes off their parent's insurance policy s/he must notify the Student Services Office within 30 days of that event so that the policy can be altered appropriately.

The MSSM UHC Student Insurance Plan coverage runs from July 1 – June 30. Coverage will be terminated by the school upon graduation or if a student does not re-enroll for the next academic year. For PhD students only: Medical insurance coverage will end on the last day of the month in which the student terminates by depositing a thesis, unless the student terminates on the first day of the month, in which case, benefits will terminate on that day.

Students can also use the Student Health Office for minor illnesses. For additional information you may call Nurse Jeanine Burrell at (212) 241-6023).

10.5 Student Mental Health Service

Rapid access to strictly confidential psychiatric consultation, counseling, treatment, and referral is available to students through the Student Mental Health Service. The Student/Trainee Mental Health Program through the Department of Psychiatry provides initial consultations and ongoing psychotherapy and medication management for those graduate students need of mental health services. The program consists of one psychiatrist and two PhD psychologists as well as various full-time and voluntary faculty members, who can see the student either on or off campus. A referral will be made if necessary. The student's insurance will be billed for all services and the student will be responsible for any co-pay. To make an appointment for an initial consultation,

contact Dr. Madeleine Fershe at 212 659-8886.

Emergency psychiatric services can be initiated by contacting the psychiatrist on-call through the page operator (212) 241-5581, or by calling the Psychiatric Emergency Service at (212) 241-7147, or by direct unscheduled presentation to the emergency room; it is never necessary to call in advance.

Student access to counseling and mental health services is considered by the school to be a private health matter of the utmost importance. The rule of complete confidentiality always applies, as in any relationship between a therapist and patient. No person or office is notified or informed at any point that a student (or dependent) has seen or is seeing a counselor or psychiatrist through the Student Mental Health Service. Student use of the service is not made known to the school, and is never recorded on any transcript.

Procedures

The School of Medicine and the Department of Psychiatry have collaboratively established several completely confidential pathways of access into mental health care and enriched available resources beyond those afforded by the basic mental health insurance plan.

1. The Student Mental Health Service

All correspondence with this office is completely confidential; there is no correspondence with the school by this office whatsoever — unless specifically requested and formally endorsed in writing by the student. No record of any contact is made available to or accessible to the school.

The intent of this service is to provide direct access to specialized consultation with an absolute minimum of administrative complexity. When ongoing treatment is desired and indicated, informed referrals into affordable care are provided.

2. Self Referral

Students may freely seek and establish mental health services entirely independent of the Student Mental Health Service, or any other campus framework, by any means of their choosing, and fully utilize their mental health insurance benefit. In this pathway of access, if insurance is utilized by the student, pre-approval of insurance must be obtained (see below).

In this manner students may proceed into care by way of referral from a friend, family, primary care physician, or insurance network.

Students selecting this pathway for their care should be clearly mindful of several considerations: the distinction between "in-network" and "out-of-network" terms for insurance reimbursement (see below); that referrals other than those provided directly by the insurance company are nearly always "out-of-network"; and that an annual 30 visit limitation applies regardless of the network designation of the provider. Students

should also clearly note that referrals generated directly by the insurance company are virtually always to clinicians unaffiliated with Mount Sinai.

3. Student Health Referral

Students may obtain a direct referral to a Mount Sinai clinician via Jeanine Burrell, R.N., of the Student Health Service at (212) 241-6023. Referrals are made by Ms. Burrell to the "out-of-network" voluntary and full-time faculty on the roster described in (1) above.

Referral requests remain strictly between Ms. Burrell, the student, and the clinician. No records of any kind are made available or are accessible to the Dean's Office or medical school administration.

Referrals conducted by Ms. Burrell are made in a general manner, without triage or consultation such as is provided by the Student Mental Health Service. Ms. Burrell will not conduct a formal clinical psychiatric assessment or inquiry to inform this referral.

After a name has been provided to the student, the next step is to obtain pre-approval of insurance must be obtained to proceed into care with this "out-of-network" referral. "Good-faith" responsibilities for students will apply with regard to financial arrangements (see below).

If the student feels that the initial referral is unsuitable, s/he may request a second referral from Ms. Burrell. At any time the student may request a consultation with the Director of Student Mental Health as described in (1) above to more specifically inform the referral. Such consultation is required to obtain additional referrals if the student is dissatisfied with a second referral as conducted by Ms. Burrell.

10.6 Infection Control

All students are held to the Mount Sinai Medical Center's Infection Control Policies and Procedures. During orientation, students will be introduced to these policies and procedures. Further training is coordinated by each degree program.

Students who experience needle stick accidents and accidental blood/body fluid in the medical school will be supported (An exposure may be a percutaneous injury, such as a needle stick, cut with a sharp object or bite, contact of mucous membranes, contact of tissue, contact of skin when the exposed skin is chapped, abraded, or afflicted with dermatitis, or the contact is prolonged or involving an extensive area with blood or tissue or body fluids.). It is expected that students follow the published protocols immediately as anti-retroviral therapy for HIV exposure, if recommended, should commence immediately. Exposure to hepatitis B or C may require therapy or further follow-up. Care, evaluation, and expert advice must be available to students regarding relative risks, options for therapy, and follow-up. Coordination of multiple affiliate sites has been

accomplished so that students have a clear idea of the protocol to follow and students receive state-of-the-art care. Students must attend annual seminars conducted by infection control experts and documentation of attendance will become a permanent part of the student's file. Students must follow protocol after a needle stick or other blood/body fluid exposure.

All policies for Infection Control at the affiliates maintain state-of-the-art standards, which are reviewed regularly by the infection control experts at Mount Sinai School of Medicine and the Division of Infectious Diseases of the Department of Medicine.

All exposures should be reported to Student Health. For complete information, view the Infection Control Handbook

http://students.mssm.edu/infection/

10.7 Student Health Services

The Student Health Center is located at 17 East 102 St Street, E Tower, 5th floor, Room 246/247 Student Health Center provides administrative services to the school to ensure compliance for OSHA for immunizations and patient safety. The Student Health Center provides medical evaluation and treatment required for matriculation, primary and preventive care, gynecological services, tuberculosis surveillance, and acute care for medical and graduate students. Student Health handles annual physicals. Students may continue to use the SHC for illness and subspecialty referrals or may access physicians independently. Students are encouraged to seek a primary care physician, especially for chronic disorders or the coordination of consultations.

The Student Health Center hours are emailed to the student body regularly. The staff consists of physicians and a full-time nurse. Students are encouraged to call for an appointment (ext. 46023) or may visit the Center on a walk-in basis. For after-hours emergencies, students may be seen in the emergency room of the hospital. An IMA Attending will be available to cover emergencies. Students must bring their insurance information with them and make certain that the designated physician is in the plan. Visits will be billed to the student's insurance, but the student remains responsible for any co-payments or for any services not covered by their insurance. If the student needs to be admitted, s/he will be given the first available bed on a semiprivate service.

All students must make arrangements to have a comprehensive physical examination done either by their private physician or by Student Health prior to the start of year one and no later than September 10. If students choose to have a physical examination done by their private physician, the appropriate documentation of the physical exam must be submitted to student health by the September 10, deadline. A student health form for reporting purposes can be attained from the Student Health Center. Students wishing to have the exam performed by the Student Health Center should call for an appointment.

The school may require that a student be seen by our Student Health physicians. Adhering to this and other deadlines is considered an obligation in order to remain a student in good standing.

Immunization Policy

Immunizations are required for diphtheria and tetanus (if not administered within the past 10 years) and polio vaccine (if initial series and booster have not been given). If students do not have immune titers to measles, mumps and rubella, the appropriate vaccine will be administered. Hepatitis titers are performed on all entering students. If students do not have immune titers it is strongly recommended that students receive the new recombinant hepatitis B vaccine which is provided free of cost. Follow-up titers are performed post vaccination to verify protection. Varicella titers are performed on all entering students unable to document history of chickenpox. **Hepatitis B and varicella vaccination are strongly recommended.**

Upon enrollment all MSSM students must have an annual PPD test for exposure to tuberculosis. Annual PPD testing is required of all students and employees at Mount Sinai. At the beginning of each academic year, students must make an appointment to have a PPD test. **Failure to do so will result in an interruption of a student's studies.** Students will not be allowed to continue in classes, clerkships, or perform research in their assigned labs. Students who are recent converters will be managed appropriately with chest x-rays to rule out the presence of active disease and prophylaxis with medications. Failure to follow appropriate treatment will result in dismissal from the institution.

Individual health information is confidential; however, non-compliance with the above regulations is forwarded to the Registrar for "student health hold" and Program Directors (Graduate School) or the Administrative Director of Student Affairs (Medical School) are notified.

Dental and Vision Care

Students have the option to elect dental and/or vision coverage at their expense. Policy information is available in the Office of Student Services. The same annual enrollment dates for Medical Coverage enrollment also pertain to Dental and Vision coverage.

In addition, Mount Sinai has a dental clinic that is available to provide emergency and routine services for medical and graduate students at a reduced fee. These services include oral examinations with x-rays and dental cleanings. More extensive services such as root canal therapy, prosthetic and cosmetic dentistry are available for a fixed fee to be explained and contracted for when needed. Students should check first with SHC for appropriate authorization and should bring their student ID and stipulate that they are a medical or graduate student. It is most effective to visit the clinic in person to arrange a time slot. The dental clinic is located on the second floor of the Annenberg building and can be reached at (212) 241-7121.

10.8 Disability Services

The Director of Disability Services works with all Mount Sinai School of Medicine students in both the Medical School and the Graduate School to facilitate equal access for students with disabilities by coordinating reasonable accommodations through a variety of support services (i.e.: access modification, learning related technology, extended test times).

The goal of Mount Sinai's Disability Services is to provide a physically and educationally

accessible educational environment so that each student is viewed on the basis of ability, not disability. Individually designed accommodation plans and services are determined based on the documented needs of each student in conjunction with their program requirements and are created to match the specific disability-related need of each student with those program requirements in mind.

Students who are seeking accommodations and services are required to submit documentation of their disability. The Director of Disability Services, Omayra Rolon (omayra.rolon@mountsinai.org) in conjunction with an advisory group from the Medical School and Graduate School, has responsibility for determining the acceptability of documentation and reserves the right to require additional information. Students are asked to register by submitting the Application for Accommodations and Services along with disability documentation. For further information refer to http://www.mssm.edu/about-us/diversity/disability-officer

Students with self-identified concerns or problems related to academic performance or learning may contact the Disability Officer to request accommodations.

Accommodations will not be implemented until the Application for Accommodations and Services has been submitted along with all disability documentation, the information has been reviewed and an official decision has been rendered. Students should expect a minimum of one month to process accommodation requests and plan accordingly.

10.9 Housing

The School of Medicine has made it a priority to provide convenient housing for students who are in the PhD, MD/PhD, and Genetics Counseling Program. Master students may be housed in Aron Hall on space available basis. Space will be re-evaluated annually on June 3rd. The Jane B. Aron Residence Hall at 50 East 98 Street offers modern and affordable housing for students. The 14-story building contains shared suites accommodating almost 600 residents. Each suite consists of four to six private bedrooms a shared bathroom for each two rooms, a living room and a kitchen. Each room has an individual heating and air conditioning unit. Living rooms have parquet floors and large windows, and all suites are furnished. Among Aron Hall's facilities are outdoor handball and basketball courts, a laundry room, and an exercise/gym room that is open to all medical and graduate students who can present their Mount Sinai student ID card.

Security provisions include doormen around the clock, a call light near the front door to summon a security guard for escort to Mount Sinai, an intercom from the lobby to all suites, and television cameras in elevators and ground floor areas. Building occupants are required to observe a number of security procedures; for example, Mount Sinai ID cards must be presented to the doorman whenever occupants are entering the building.

Furnished and unfurnished apartments in other buildings owned by Mount Sinai are available for students with a family size of more than one (1) as documented by proof of marriage or a domestic partnership. Documentation of the family size is required. For further information please contact: MSSM Real Estate Office at (212) 659-9630 or housing@mountsinai.org

Student occupancy agreements are written for the term of student enrollment. A non-graduating student who wishes to permanently leave Mount Sinai housing may be released from the occupancy agreement as of June 30 of the year by requesting this in writing at the Real Estate Office on or before May 31. Non-graduating students, who vacate their Mount Sinai housing prior to June 30, or without giving proper notice, will be responsible for their rent until June 30. Special requests to terminate a lease early may be brought to the attention of the Director of Enrollment Services who will take any petitions for exceptions to the Housing Oversight Committee for review.

Occupants are charged a \$25 late fee each month on any balances not paid by the 10th of each month. Students who fall more than two months in arrears will be put on "housing hold" and will not be considered to be in good standing with the school until the situation is corrected. Transcripts, letters of recommendation, change of status, and so on are all affected by this hold. For additional information, contact, Registrar's Office, Tel: (212) 241-5245.

In compliance with Medical Center policy, students may not possess illegal drugs, firearms, and/or ammunition in any facility operated by Mount Sinai. Additional housing regulations and information are contained in the occupancy agreement, in "A Guide to Living in Mount Sinai Housing," and other documents. Students graduating in the spring term are expected to vacate their Mount Sinai housing by the Sunday following graduation. Notification of move out dates must be submitted to the Real Estate Office. Any student graduating at other times of year should give the Real Estate Office 60 days' notice to schedule their move out date.

The Medical Center's insurance does not cover occupants' personal property. Students are urged to purchase renters' insurance policies or to find out if their belongings can be covered under their parents' policies.

In compliance with Medical Center policy, students may not possess illegal drugs, firearms, and/or ammunition in any facility operated by Mount Sinai. Additional housing regulations and information are contained in the occupancy agreement, in "A Guide to Living in Mount Sinai Housing," and other documents.

The Real Estate Division is open Monday through Friday, except holidays, from 9:00 A.M. to 5:00 P.M. In addition, a voice mail system will take messages during evenings, weekends, and holidays. For any unresolved problems with residential building services or repairs, you may ask for an appointment with the Director of Enrollment Services, who acts as liaison between students and Real Estate. For questions about Aron Hall housing, see the Housing Coordinator in the Real Estate Office. For additional information, including lease terms, guest visitation policy, room transfer policy, and subleasing policy, please visit the website at: http://www.mssm.edu/education/student-resources/housing or contact:

MSSM Real Estate Office 1249 Park Avenue. 1st Floor New York, NY 10029 Tel: (212) 722-5096

Fax: (212) 831-3093

10.10 Safety and Security

Identification Badges

Identification badges are issued to all students at the time of registration and MUST BE WORN AT ALL TIMES in all campus buildings and upon entering any residence hall. Students will be asked to present cards for identification at the library, pharmacy, and so on. Lost cards may be replaced for a \$10 fee, payable to the main cashier. The receipt is presented to Security Administration who will issue a new badge.

Property Passes

It is the policy of Mount Sinai that no equipment (microscopes, slide boxes, computers and so on) be removed from the premises without a Mount Sinai Property Pass. Property passes are available from the Graduate School office during weekdays. Personal property is often the object of theft and should be protected at all times. The Security Department endeavors to protect it also. For that reason it is required that persons leaving Mount Sinai with personal property (radios, lap top, and so on) obtain a Personal Property Pass to expedite egress from the complex. Packages will be inspected by security officers at entrances and exits.

Security

The Main Security Office is located at 1468 Madison Avenue, MC level, AMC-203. Security Guard stations are located at the entrance to all buildings on the campus. Security measures at Mount Sinai are reviewed continuously to provide a secure environment for all who use its facilities. The policy requiring all students, faculty, and employees to wear Mount Sinai identification within the complex is implemented for protection and is enforced. The ID card must be displayed and worn upon entering all buildings and while on the premises. A student's personal security is of paramount importance. For this reason Security will, upon request, provide escorts within Mount Sinai and to on-campus residences. Call ext. 46068/9 approximately 10 to 15 minutes prior to departure.

Security is a function that requires the cooperation of everyone associated with the Mount Sinai. Students are requested to dial "60" on any phone in the event of any emergency or when suspicious activities are observed. At other times, when the assistance of the Security Department is needed, dial ext. 46068/9.

A committee of the Student Council addressing housing and security exists and meets on a regular basis with Security to discuss matters of concern.

Cleary Act

Copies of Crime Statistics for the MSSM area are available in the Security Office and the Office of the Associate Dean for Student Services. In addition, information concerning the regulations and Mount Sinai crime statistic information is available through the <u>U.S. Department of Education web site</u> for campus crime statistics (<u>www.ope.ed.gov/security</u>).

Emergency Alert System "Message One"

In order to allow for a more coordinated and rapid response to emergency or disaster situations at Mount Sinai, the medical center has purchased a messaging system for faculty and students. The messaging system is called MessageOne. MessageOne has the capability of informing students of and delivering instructions regarding citywide, hospital, or student specific (e.g. student housing intruder) emergencies requiring immediate attention.

Signing up for this system is mandatory for all medical students, as medical students are considered First Responders in the state of New York and are expected to aid in an emergency. Graduate Students are highly encouraged to register as active members of the Mount Sinai community. During the on-line registration process, students have the option to set the method of contact (e.g. cell-phone, text message, email).

Fire Safety

One of the most serious issues facing the Mount Sinai Medical Center students, employees, and patients is the threat of fire. The risk is increased because work conducted in clinical, research and other laboratories may involve flammable liquids and other hazardous substances. In addition, the use of specialized equipment such as lasers and other ignition sources utilized in oxygen-enriched atmospheres increases the threat of fire. This threat is far more critical in patient care areas since patients are often incapable of self- preservation. It is critical to your safety as well as our patients' well-being that you know what to do in the event of an actual fire. This knowledge is imparted to you through participation in fire drills, and fire safety training inservices. CODE RED is the phrase used to alert the Mount Sinai Community to enact the R.A.C.E. protocol for fire emergencies.

R = RescueA = AlarmC = ConfineE = Extinguish

The Mount Sinai Intranet, http://intranet1.mountsinai.org/, under Core Administrative Services and Fire Safety Tabs, includes a link to the MSMC video entitled "CODE RED". Please take the time to view this important informational video and participate in your local fire drills.

Sexual Assault

Mount Sinai School of Medicine is committed to maintaining a supportive and safe educational environment, one that seeks to ensure the well being of all members of its community. Those who believe that they are the victims of sexual assault should

- 1. **Immediately call the police department at 911.** If possible, call the MSSM Security Department at (212) 241-6068.
- 2. Get medical attention. Campus security will provide transportation to the Mount Sinai

Medical Center Emergency Room for emergency medical treatment and evidence collection. A counselor from the Sexual Assault and Violence Intervention (SAVI) program will be available to assist victims.

Caring assistance is available for persons who have been subjected to sexual assault or sexual misconduct. They are encouraged in the strongest terms to make a report. Mount Sinai School of Medicine works closely with Mount Sinai SAVI program. More information can be found at http://www.mountsinai.org/patient-care/service-areas/community-medicine/areas-of-care/sexual-assault-and-violence-intervention-program or by calling (212) 423-2140.

Consistent with Chapter 739 of the State Education Department signed into law in 1990, information concerning prevention of sexual assault is provided to all entering students. In addition, the library has information available concerning the legal consequences of sex offenses.

10.11 Student Life

Bicycles

Bicycle racks are provided for daily use. All bicycle parking is at the owner's risk. Students must provide a lock and/or chain to secure their bicycle to the rack. The bicycle stand is located in the main parking garage entrance lane. Bicycles will not be permitted in any Mount Sinai building. Bicycles cannot be kept overnight in the parking garage.

Bookstore

At <u>Posman Collegiate Bookstore at Mount Sinai</u> (<u>www.posmancollegiate.com/mtsinai</u>), you can order medical textbooks, popular books, supplies, and Mount Sinai gifts.

Buses

The Medical Center provides a shuttle bus service for the Bronx V.A., Elmhurst, North General Hospital, Adolescent Health at 320 East 94th Street, and the 125 Street Metro North Train Station. Schedules are available in KCC 1 North and tickets may be purchased at the cashier's booth at the 98th Street garage.

Food Service

The cafeteria offers a variety of selections for breakfast, lunch, and dinner. One can choose from a soup and salad bar, a deli sandwiches section, including popular wrap sandwiches, Kosher Corner, Main Fare, grilled selections, freshly-prepared pizza, and a variety of desserts and beverages, plus regularly scheduled "special menus," candies, popcorn, and munchies. Vending machines offer a variety of hot and cold foods and are available for use 24 hours a day, every day of the week throughout the campus, with the main location being adjacent to the Plaza Cafeteria in the Guggenheim Pavilion Lobby. The cafeteria is located on the Atrium level of Guggenheim Pavilion. Information about menus and times of operation are posted at: http://intranet1.mountsinai.org/foodservice/

The Starbucks coffee kiosk is located in the Atrium of the Guggenheim Pavilion – hours are

posted.

Recreation

Recreational activities at Mount Sinai are determined by the student body and are administered jointly by the Recreation Office and two committees of the Student Council, one responsible for social activities and the other for athletic activities. Each committee is composed of one elected student from each of the four classes. At the beginning of the academic year, following discussion with their respective classes, the Committee members formulate a program of activities for the entire academic year and allocate the necessary funds. Individual students interested in a particular activity should consult appropriate class representative. Students are urged to coordinate as many activities as possible through the two Student Council committees and the Recreation Office.

In addition, the Recreation Office, (19 East 98 Street, Room 1E), also provides information about a wide range of activities. The Office offers discount tickets to Broadway and off-Broadway shows, concerts, operas, sports events and other events occurring in New York. For certain events such as the Metropolitan Opera a specific number of tickets are allocated for student purchase; each student is permitted to buy two tickets. Students may phone (ext. 49531) for daily listing of available events and (x47257) for future listings or check on the Web: www.mssm.edu/recreation/ under Employee Services then under Organizational Development Learning (ODL); also on the Internet: www.mssm.edu/recreation/. General recreational information is also available in the Recreation Office. Discounts are available for health clubs, Circle Line, Great Adventure and other amusement parks. Discount buying services are available for hotels, restaurants, car rentals, travel, magazines, and many other items. The Recreation Office maintains listings of city recreational facilities available to students (ice skating, swimming pools, tennis courts, handball courts, and so on).

The Employee-Student Activities Committee schedules a number of activities. Check with the Student Activities Coordinator at the Recreation Office (ext. 46660) for more information. Students are invited to serve on this special committee.

There is a gym on the first floor of the Aron Residence Hall at 50 East 98th Street. In the back of Aron Hall there are several basketball half-courts and a handball court that are available for student use.

Membership passes for the 92nd Street Y are available and students can obtain them by signing up online. For first time users contact The Graduate office for instructions how to sign up. The "Y" has aerobic classes, basketball courts, a running track, handball courts, exercise rooms, a large swimming pool, and a weight room, which is equipped with free weights, Nautilus, bikes, rowers and a stair machine. The passes may only be used by Mount Sinai students (not their guests). The Mount Sinai ID card plus the pass gains admission to the "Y" for the use of the facilities.

11. Graduate School Special Programs

Annual Retreat

The Annual MD/PhD Retreat is held yearly over an early fall weekend off site. Activities include a keynote address by an internationally prominent scientist, a state-of-the program discussion between leadership and students, an alumni discussion panel, a poster and oral platform session, and small group breakout sessions focused on issues relevant to specific stages of training (preclinical, graduate, clinical). Ample time is set aside for activities such as hiking, bike riding or swimming. Attendees at the retreat typically include the Directors, faculty involved in the MD/PhD education, alumni and students.

Summer Undergraduate Research Program (SURP)

The Summer Undergraduate Research Program is sponsored and administered by the Graduate School as a vehicle for bringing research-oriented undergraduate students into our community during the summer. Each student is assigned an advisor for the duration of the ten-week long program. All summer students at Mount Sinai are invited to participate in a special summer Seminar Series, which includes seminars by graduate faculty and graduate students, and a poster session at the end of their stay which features the work done by the fellows during the summer. This Program is highly competitive and emphasizes the recruitment of talented students from leading colleges and universities around the country. This is a major recruitment activity of the Graduate School. Our faculty and graduate students interact with the summer students as much as possible to act as mentors in their work and goals. Many of these students, with the approval of the mentor, continue to interact with the laboratories after termination of the fellowship. Preference for SURP application will be given to students intending to pursue PhD or MD/PhD studies.

Post-Baccalaureate Research Education Program (PREP)

This program which is supported by the Minority Access to Research Careers (MARC) Program Branch of the Division of Minority Opportunities in Research (MORE) of the National Institute of General Medical Sciences, provides a period of intensive research and other academic opportunities for recent college graduates from underrepresented minority groups who would like to enter graduate school in biomedical sciences. The Scholars will enhance their research experience and readiness for entry into an excellent graduate program.

Other Special Programs

The Graduate School periodically sponsors special seminars, workshops, and mini-courses in such areas as Philosophy of Science, Biohazards, Grant Proposals, and Careers in Biotechnology. Students are encouraged to help organize such programs in areas of interest to them.

12. Institutional Policies

12.1 Affirmative Action

It is the policy of the Mount Sinai School of Medicine that all decisions regarding educational and employment opportunities and performance are made on the basis of merit and without discrimination because of race, gender, color, creed, age, religion, national origin, citizenship, disability, veteran status, marital status, sexual orientation, genetic predisposition, or any other characteristic protected by law. Sexual harassment is defined as a form of sex discrimination and, therefore, any sexual harassment at the school will constitute a violation of the medical school's nondiscrimination policy.

In keeping with our continuing efforts to achieve a broadening of the representation of women and minority groups throughout the medical school, we have:

Developed an Affirmative Action Program, which details actions designed to realize the School's commitment to equal educational and employment opportunities.

Insured our compliance with Federal, State and Local laws and regulations implementing equal opportunity objectives by meeting the spirit as well as the letter of the law and contractual requirements.

We cannot over-emphasize our commitment to the realization of these goals. Every decision affecting faculty, house staff, fellows, graduate students, employees, and medical students and other members of the medical school community rests solely on demonstrably valid criteria of merit, competence and experience.

Additional information concerning Mount Sinai's Affirmative Action Program, its interpretation and/or application may be obtained from the Affirmative Action Office located at 1245 Park Avenue, Ground Floor.

12.2 Alcohol and Drugs

The following statement describes the medical school's policy regarding substance abuse for all employees, which include faculty, administration, house staff, students, graduate students, fellows, bargaining and non-bargaining unit employees. The medical school has a significant interest in ensuring that the work environment is free from the hazards to patients, employees, and visitors that are created due to the unauthorized use of alcohol, drugs, or controlled substances.

The illegal sale, manufacture, distribution, or unauthorized use of drugs or controlled substances off-duty whether on or off medical school premises or reporting to classes or clerkships under the influence of un-authorized drugs or controlled substances may constitute grounds for immediate dismissal.

The unauthorized use or possession of alcoholic beverages on medical school premises or reporting to School under the influence of alcohol also may constitute grounds for immediate dismissal.

The medical school may in its discretion take appropriate disciplinary action up to and including termination against anyone who has violated the above rules. In some cases, the individual in question may be referred for counseling and treatment through the Employee Assistance Program. The School is under no obligation to refer an employee who has violated the above rules to the Employee Assistance Program or to any other rehabilitation program.

Any employee or student who is suspected of being under the influence of any alcoholic beverage or drug while on duty and who refuses to be medically evaluated or to release the results of such evaluation to the medical school (as employer) or appropriate administrative officer of the School will be relieved from duty and will be subject to disciplinary action up to and including dismissal.

The Drug-Free Workplace Act of 1988 requires The Mount Sinai Medical Center, as a Federal grant recipient and contractor, to certify that it will provide a drug-free workplace. This is accomplished by providing to each employee or student engaged in a federal grant or contract, a copy of The Medical Center's Drug-Free Workplace policy and statement, and requiring that as a condition of employment under such a grant or contract the employee will:

- Abide by the terms of this Statement; and
- Notify the Director of Human Resources and Labor Relations or his/her designee of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

A Drug-Free Awareness Program has been established to inform all employees about the dangers of drug abuse in the workplace, The Medical Center's policy of maintaining a drug-free workplace, the available drug counseling, rehabilitation and employee assistance programs, and the potential penalties for drug abuse violations.

The Employee Assistance Program (EAP) offers professional guidance counseling and a referral service for substance abuse, as well as other concerns, to students, employees and their immediate families free of charge. For confidential information, contact EAP at (212) 241-8937.

12.3 Drug Testing

All incoming students are required to undergo drug/alcohol screening. Subsequently, drug/alcohol testing may be requested of any student, at any time, including:

- When concerns about substance use issues arise.
- When any student returns from a leave of any kind.
- When a student self-reports a problem.

• Failure to undergo testing as requested will result in dismissal from the school. Drug/alcohol testing is conducted both to provide an environment that is safe for our patients and that promotes the highest possible level of learning and professionalism in our students. While the school of medicine maintains a drug-free workplace in compliance with federal regulations, it also strives to foster an atmosphere of openness about drug and alcohol related issues. Although people often have strong preconceptions about substance use and drug/alcohol testing, such testing is done out of concern for the well-being of our students and of their current and future patients. It is therefore neither uncommon nor prejudicial.

12.4 Alcohol Policy – Levinson Student Center

The policy of the School of Medicine regarding alcoholic beverages in the Patricia and Robert Levinson Student Center is to maximize student utilization of the Center while assuring that clear policies are in place. Alcohol is permitted in the Student Center at events sponsored by student organizations or Departments within MSSM under the following circumstances:

- A student-run organization that is recognized by Student Council is sponsoring the event.
- No student or guest under the age of 21 will be served or permitted to consume any alcoholic beverage.
- Alcoholic beverages are not sold at the event.
- Alcohol must not be taken out of the Student Center into other areas of Mount Sinai.
- Serving alcoholic beverages is always in the context of serving food and non-alcoholic beverages.
- A specific student (or students) is identified as responsible for the event.
- The responsible student will monitor the event so that anyone who is clearly intoxicated is not served any more alcohol.
- If a person has become intoxicated, steps should be taken to try and help the individual sober up prior to leaving the party.
- The responsible student monitoring the event must make certain that any person that has become intoxicated will not be allowed to drive. Cab fare should be provided, if necessary, or an escort should be provided to ensure that the person gets home safely.
- The Administrative Director of Student Affairs is notified in writing about the event at least one week in advance with the clear statement that alcoholic beverages are planned as part of the food and beverage service serving as the application for a permit.
- Funding for alcoholic beverages will not come from tuition resources nor be supported by the Department of Medical Education budget.

There MUST be a written permit statement prior to the event and the responsible person(s) should have the permit with them at the event. The Security Department will be notified that alcohol will be served at the event. Under no other circumstances should alcoholic beverages be used or available in the Levinson Student Center. Please contact the Event Coordinator of Student Affairs to attain a permit or for questions.

12.5 Acquired Immune Deficiency

The School of Medicine in concert with the other medical schools in the state, has formally stated its commitment to accept as its most fundamental responsibility the care of all patients seen in its facilities, including those who are positive for the human immune deficiency virus (HIV). This commitment extends to all faculty, residents, and students. The School is equally committed to the education and counseling of all health care professionals including medical students, to eliminate misperceptions concerning the risks of caring for AIDS as well as the appropriate precautions to be taken for prevention of transmission of HIV, Hepatitis-B virus and other blood-borne infections.

12.6 POLICY ON HARASSMENT

I. Statement of Purpose

Harassment has become an increasingly prominent national concern in the workplace and in academic institutions. MSSM regards any behavior that is harassing, discriminatory, or abusive as a violation of the standards of conduct required of all persons associated with the academic mission of the institution. The ideal of American medical, graduate and postgraduate education is to create an environment that nurtures respect and collegiality between educator and student. In the teacher-student relationship, each party has certain legitimate expectations of the other. For example, the learner can expect that the teacher will provide instruction, guidance, inspiration, and leadership in learning. The teacher expects the learner to make an appropriate professional investment of energy and intellect to acquire the knowledge and skills necessary to become an effective physician or scientist. The social relationships required in the achievement of this academic ideal – mentor, peer, professional, staff – require the active trust of partnership, not the dependence of authoritarian dominance and submission.

MSSM is responsible for providing a work and academic environment free of sexual and other forms of harassment. The institution may pursue any complaint of harassment known to it in order to achieve this goal. A Grievance Committee (the "Committee") was established in 1992 to serve as an educational resource to the medical school community on issues relevant to harassment and to address complaints of sexual harassment and other forms of harassment and abuse as defined below. Complaints about implementation of school policies concerning appointment, promotion, and distribution of resources, including notification requirements associated with these policies, will not be addressed by this Committee unless they involve, in addition to those complaints, an allegation of harassment or abuse as defined below. The Committee (and an appointed Investigative and Hearing Board (the "Board") under Paragraph IV.C.2. below, if any) may only consider complaints of harassment and abuse brought by any faculty member, medical or graduate student, house staff or postdoctoral fellow against any other such member of the School community. Complaints by and against other employees of MSSM will be handled by other appropriate existing grievance mechanisms (e.g., those available through Human Resources). The Committee may act (at the Committee's discretion) before or after other action(s) an individual may take to exercise his/her rights both within and outside the

institution.

The Committee will attempt, whenever possible, to emphasize mediation and conciliation. It will rely on discreet inquiry and trust in dealing with complaints that are brought for its consideration. Confidentiality will be maintained to the maximum extent possible consistent with the need to investigate complaints and with the requirements of the law. Full cooperation with the Committee and an appointed Board, if any, is required of all members of the community.

To ensure an environment in which education, work, research, and discussion are not corrupted by abuse, discrimination and harassment, the following statement has been created to educate members of the academic community about what constitutes harassment and about the mechanism for the receipt, consideration, and resolution of complaints.

Issues also may be brought up during the Steering Committee of the Student Council's monthly meetings with the Dean, the Dean for Medical Education, the Dean of the Graduate School and the Associate Deans. It must be emphasized that appropriate professional behavior is expected of all members of the School of Medicine and the Hospital. Harassment in any form will not be tolerated.

Consistent with Chapter 739 of the State Education Department signed into law in 1990, information concerning prevention of sexual assault will be provided to all entering students. In addition, the library will have information available concerning the legal consequences of sex offenses. A committee of the Student Council addressing housing and security exists and will meet on a regular basis with Security to discuss matters of concern.

II. Definitions of Unacceptable Behavior

Certain behaviors are inherently destructive to the relationships that are required in a community organized to provide medical and graduate education. Behaviors such as violence, sexual and other harassment, abuses of power and discrimination (based on race, color, religion, national origin, gender, sexual orientation, veteran status, age, disability, citizenship, marital status, genetic predisposition or any other characteristic protected by law) will not be tolerated.

A. Sexual Harassment is defined as unwelcome sexual advances, requests for sexual favors, and/or other verbal or physical conduct of a sexual nature when:

- 1. submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or academic success.
- 2. submission to or rejection of such conduct by an individual is used as a basis for employment or academic decisions affecting such an individual.
- 3. such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive work or academic environment. Sexual harassment is a violation of institutional policy and of city, state and federal laws. Sexual harassment need not be intentional to violate this

policy.

Examples of sexual harassment include, but are not limited to:

- sexual assault
- inappropriate sexual advances, propositions or demands
- unwelcome physical contact
- inappropriate persistent public statements or displays of sexually explicit or offensive material which is not legitimately related to employment duties, course content or research
- threats or insinuations, which lead the victim to believe that acceptance or refusal of sexual favors, will affect his/her reputation, education, employment or advancement
- derogatory comments relating to gender or sexual orientation

In general, though not always, sexual harassment occurs in circumstances where the harasser has some form of power or authority over the life of the harassed. As such, sexual harassment does not fall within the range of personal private relationships. Although a variety of consensual sexual relationships are possible between medical supervisors and trainees, such relationships raise ethical concerns because of inherent inequalities in the status and power that supervisors wield in relation to trainees. Despite the consensual nature of the relationship, the potential for sexual exploitation exists. Even if no professional relationship currently exists between a supervisor and a trainee, entering into such a relationship could become problematic in light of the future possibility that the supervisor may unexpectedly assume a position of responsibility for the trainee.

B. Discrimination is defined as actions on the part of an individual, group or institution that treat another individual or group differently because of race, color, national origin, gender, sexual orientation, religion, veteran status, age, disability, citizenship, marital status, genetic predisposition or any other characteristic protected by law. Discrimination or harassment on the basis of these characteristics violates federal, state, and city laws and is prohibited and covered by this policy.

C. Abuse is defined, for purposes of this policy, as behavior that is viewed by society and by the academic community as exploitative or punishing without appropriate cause. It is particularly objectionable when it involves the abuse of authority.

Examples of behavior, which may be abusive, include, but are not limited to:

- habitual conduct or speech that creates an intimidating, demeaning, degrading, hostile, or otherwise seriously offensive working or educational environment
- physical punishment
- repeated episodes of verbal punishment (e.g. public humiliation, threats and intimidation)
- removal of privileges without appropriate cause
- grading or evaluations used to punish rather than to evaluate objective performance
- assigning tasks solely for punishment rather than educational purposes

- repeated demands to perform personal services outside job description
- intentional neglect or intentional lack of communication
- requirements of individuals to perform unpleasant tasks that are entirely irrelevant to their education and employment that others are not also asked to perform

Constructive criticism, as part of the learning process, does not constitute harassment. To be most effective, negative feedback should be delivered in a private setting that fosters free discussion and behavioral change.

III. Office of the Ombudsperson

The Institutional Ombudsman is Barry Stimmel, MD who is available to any student to give counsel and feedback and to discuss informally any situation they have encountered and the nature of any discrimination or abuse, and so forth. This Office is a confidential resource for students except in cases where legal action is needed (e.g., unlawful discrimination or harassment, assault/harm to student or patient).

IV. Grievance Committee

A. Purview

The Committee is charged with addressing any complaint of harassment or abuse brought by any member of the faculty, medical or graduate student, house staff officer or postdoctoral research fellow against any other such member of the school community.

B. Composition of the Committee

The Committee will consist of at least 22 members. Among these will be 2 with counseling experience, 2 medical students, 2 graduate students, 2 house staff, 2 faculty with administrative appointments, and 2 research postdoctoral fellows. Faculty members of the Committee will be representative of both basic science and clinical, junior and senior faculty. Every effort will be made to have the Committee reflect the full diversity of the medical school population. The Chairperson of the Committee (the "Chairperson") shall be a faculty member with experience in counseling and who does not have an administrative appointment. All members of the Committee, including the Chairperson, will be appointed by the Dean after consultation with relevant groups in the School. Faculty will serve staggered 3-year renewable terms; students, postdoctoral fellows and house officers will serve renewable 1-year terms.

V. Grievance Procedures

A. Any member of the faculty, any medical or graduate student, house officer or postdoctoral research fellow who believes that he or she has been harassed or abused by any other such member of the School community may contact any member of the Committee or the Chairperson to seek advice, or may submit a written complaint to the Committee. The Committee member contacted can discuss the matter with the complainant, advise the complainant of his/her alternatives in pursuing the complaint,

including, if the complainant agrees, (and where permitted by law), helping the complainant to resolve the complaint informally without revealing the complainant's name. Such help may include, but is not limited to, assisting the complainant in drafting a letter to the alleged offender asking that he/she stop the behavior, or coaching the complainant in preparation for a conversation with the alleged offender. The complainant may ask the Committee member to meet directly with the person accused to seek a resolution.

If the complaint includes an alleged violation of law, the Committee member initially contacted must bring the complaint to the full Committee, the complaint must be fully documented and investigated, and a report made to the Dean.

- B. Upon request of the complainant to the Committee member originally contacted, or upon receipt of written complaints to the Committee, or when required by law, the complaint, with the names of the complainant, respondent and department withheld, will be discussed by the Committee at its next regular meeting.
- C. Following discussion of the complaint, the Committee has 2 options:
 - 1. It can decide that even if the allegation is true, it does not constitute harassment or abuse. The complainant will be notified of the finding and can be offered guidance and/or assistance in resolving the matter, or be referred to another, more appropriate venue, such as Human Resources, the Faculty Relations Committee or a Tenure Review Committee to pursue the complaint.
 - 2. It can decide that the allegation is sufficiently serious to warrant further investigation. Unless previously submitted, the complainant will be requested to submit a full written account of the complaint. Upon receipt of the written complaint, the Chairperson will appoint a five-member Board and two alternates.

The Chairperson will serve as chair of the Board (or, in case of conflict of interest or other inability to serve, appoint another Committee member) and will appoint at least 4 additional individuals and at least 2 alternates to consider the complaint. Students, postdoctoral fellows, and house staff members are to be excluded from the Board in cases involving a faculty member alleging harassment by another faculty member. In cases involving a student, postdoctoral fellow or house staff (either as an accuser or accused), at least one of the members of the Board will be from the same group. Each Board will have at least one member with experience in counseling, and at least 3 faculty.

D. Upon selection of the Board, the complainant will be notified of the names of Board members, and will have 48 hours from receipt of such notification to challenge, in writing, any member for cause. The respondent will be notified that a complaint has been brought against him/her, the name of the complainant, the nature of the complaint, and the names of the members of the Board. The respondent shall also have 48 hours from receipt of notification to challenge, in writing, any member of the Board for cause. In the

event of a challenge, the Chairperson will decide on the merits and replace Board members if necessary. In the event that the Chairperson is unable to appoint a sufficient number of members not disqualified for cause, the Dean will appoint additional members.

E. Investigative and Hearing Board Procedures.

The preliminary stages of the investigation may consist of meetings of one or more members of the Board with the complainant, respondent and other members of the community who might have relevant information. In the event that preliminary meetings have been held, all information obtained in these meetings will be shared with the entire Board. In all meetings, confidentiality will be stressed.

The respondent will receive the full written complaint with the supporting documentation provided by the complainant to the Board and will be afforded two weeks to provide a written response. This response will be distributed to the Board and provided to the complainant.

The Board will then hold one or more hearings, which the complainant and respondent will attend, either individually or together, along with any other witnesses the Board deems relevant to the complaint. At the hearing, each of the parties may be accompanied by an advisor, who is a member of the Mount Sinai community, but who is not a lawyer, and who will not function as an advocate during the hearing.

At the close of the hearing(s), the Board will deliberate the findings without the presence of either the complainant or the respondent.

Upon concluding its deliberations, the Board will vote on whether or not there has been a violation of this policy based on a majority vote. Recommendations for remedial actions will be discussed. A full report will be drafted, including the findings, vote and recommendations of the majority. It will then be submitted to the Dean.

The Board's written report will include:

- a) a determination that a violation of this policy did or did not take place
- b) a listing of its findings of fact
- c) a summary of the written submissions of the parties
- d) a summary of testimony at the hearing
- e) a summary of evidence gathered during the investigation
- f) the conclusions it has drawn from this material
- g) its recommendations for action to be taken by the Dean.

The Board may recommend sanctions based on the severity of the offense.

Sanctions may include, but are not limited to, verbal reprimand, written reprimand, change in job responsibilities, suspension, discharge, and expulsion.

The Board and/or the Committee may, at their discretion, modify the Grievance Procedures depending on the nature of a particular complaint.

F. Dean's Review

The Dean may accept or reject conclusions and/or recommendations of the Board. However, in the event the Dean does not accept either the Board's conclusions or its recommendations, he/she will meet with the Board to discuss the reasons for the rejection before recording a final decision on the matter.

The Dean will convey his/her decision in writing to the complainant, respondent and the Board.

VI. Protection from Retaliation

All individuals involved in registering a complaint, serving as representatives for the complainant or respondent, as witnesses, or on the Committee will be free from any and all retaliation or reprisal or threats thereof. This principle applies with equal force after a complaint has been adjudicated. Upon submission of a complaint or threat of retaliation, the Committee will review the facts and recommend appropriate action.

VII. Re-Evaluation of Procedures

The Committee will review the grievance procedures periodically. Proposed changes, approved by a majority of the Committee, must be reviewed and approved by the Office of the General Counsel before being implemented.

12.7 Family Education Rights and Privacy Act

The Family Educational Rights and Privacy Act (FERPA) of 1974 and its subsequent amendments afford students certain rights with respect to their educational records. Copies of this Act are available in the Office of the Registrar.

The Family Educational Rights and Privacy Act of 1974 and its subsequent amendments afford students certain rights with respect to their educational records. Copies of this Act are available in the Office of the Registrar. As detailed below, students have the right to:

- A. Inspect and review their education records.
- B. Seek amendment of their education records if they believe them to be inaccurate, misleading, or otherwise in violation of their privacy rights.
- C. Consent to certain disclosures of personally identifiable information contained in their education records.
- D. File complaints with the Department of Education concerning any alleged failure to comply with FERPA's requirements.

Student Access Rights

All currently registered and former students at Mount Sinai School of Medicine have the right to review and inspect their official education records at the School in accordance with these rules. Official education records are those regularly maintained by the School. These include admissions and academic records prepared and maintained by the Registrar. Students who wish to review their records should make an appointment with the Associate Dean for Student Affairs or the Registrar. Access will be granted within 45 days from the receipt of the written request to inspect records.

Students have a right to a response to a reasonable request for explanations and interpretations of the student's educational records. Students seeking explanations or interpretations of their educational record may make an appointment with the Associate Dean of the Graduate School or Associate Dean for Student Affairs-Medical Education, as appropriate based on the student's program. If the Associate Dean is unable to provide a satisfactory explanation, the student will be referred to the Dean of the Graduate School or Dean for Medical Education, as appropriate.

Students may not copy records unless the failure to produce copies would prevent the student from exercising his/her right to inspect and review records

Limitation on Access

The Act limits a student's right to access information contained in his/her education records. Accordingly, the School need not permit students to view:

- A. Financial records, including information regarding the student's parent (s), including parental tax forms and other parental records submitted in support of a student's financial aid application or claim of New York residence.
- B. Confidential statements and letters of recommendation placed in a student's file prior to January 1, 1975 provided they are used for the purpose for which they were specifically intended.
- C. Confidential letters of recommendation placed in the student's file after January 1, 1975, if:
 - 1. The student has waived his/her right to inspect and review those letters.
 - 2. The letters are related to the student's (a) admission to an educational institution; (b) application for employment; or (c) receipt of an honor or honorary recognition.
- D. Records of instructional, administrative and supervisory staff, which are in the sole possession of such personnel.
- E. Records of professional and paraprofessional personnel, which are created, maintained

and used solely for the purpose of treatment and are not available to anyone other than the individual providing the treatment; the student has the right, however, to have such records reviewed by an appropriate professional of his/her choice.

Mount Sinai School of Medicine does not require students to waive their right of access to educational records and waiver of access rights is not a condition for admission to the School or for receipt of financial aid or other services or benefits from the School. Under certain circumstances, however, a student may wish to waive his/her right of access to confidential letters of recommendation. A student may do so by signing a waiver form. In this event, the student will be notified upon request of the names of persons making such recommendations and the recommendations will be used solely for the purpose for which they are intended. A waiver may be revoked in writing with respect to actions occurring after the revocation. Waiver forms are available in the Registrar's Office.

Amendments and Hearing Rights

If a student believes that his/her education records contain information that is inaccurate, misleading, or in violation of the student's rights of privacy, he or she may ask the School to amend the record. Requests for amendments shall be directed to the Registrar, who will respond to the request within a reasonable time. If the request is denied, the student will be notified of his/her right to appeal that decision as specified below.

When the request for an amendment is denied, the student may request a hearing to challenge the content of the record on the grounds that the information contained in the record is inaccurate, misleading or in violation of the student's privacy rights. Requests for hearing must be submitted in writing to the Associate Dean of the Graduate School or the Associate Dean for Student Affairs – Medical Education (as appropriate) within 10 days of receiving the Registrar's response denying a request for amendment as discussed above.

Hearing

- 1. The hearing will be held before the Dean of the Graduate School or the Dean for Medical Education, as appropriate.
- 2. A hearing will be held within a reasonable time after receipt of the request for hearing. The student will be given notice of the date, time, and place of the hearing.
- 3. The student shall have a full and fair opportunity to present evidence relevant to show that the information at issue is inaccurate, misleading, or violates the student's privacy rights. The student may be assisted or represented by an individual of his/her choice, including an attorney. The role of attorneys, however, may be limited at the discretion of the Dean hearing the case.

The decision, which shall include a summary of the evidence presented at the hearing and reasons for the decision, shall be rendered in writing within 15 business-days after the conclusion of the hearing. This hearing will relate only to whether the student's record is inaccurate, misleading, or otherwise in violation of the privacy of the student, with the decision based solely on evidence presented at this hearing. The hearing cannot determine whether a higher grade should have been assigned.

If it is determined after a hearing that the record in question should be amended, the Registrar will take appropriate steps to amend the record and will so notify the student in writing. If it is determined that the record is not inaccurate, misleading, or otherwise in violation of the student's privacy rights, the student shall be informed of his/her right to place a statement in the record commenting on the contested information in the record or stating why the student disagrees with the School's decision not to amend the record. This statement will be maintained as part of the record and will be disclosed whenever the part of the record to which the statement relates is disclosed.

All students have the right to file complaints to the Enrollment Officer concerning alleged failures by the School to comply with the requirements of the Act.

Release of Personally Identifiable Information

Disclosures with consent

- 1. To an official or duly constituted committees of the School of Medicine that require access in connection with legitimate educational interests, including, but not limited to matters of financial aid, promotion or consideration for election to the Lambda Chapter or Alpha Omega Alpha or other honors.
- 2. The student shall provide a signed and dated written consent form before the School will disclose personally identifiable information from the student's educational record. The consent must (i) specify the records that may be disclosed; (ii) state the purpose of the disclosure; and (iii) identify the party or class of parties to whom disclosure may be made.
- 3. When a disclosure with consent is made the School will, upon the student's request, give him/her a copy of the records disclosed.

Disclosures without consent

The Act permits the School to disclose personally identifiable information from the student's education records under the following circumstances:

- To officials of another school where the student seeks or intends to enroll. Copies of records will be made available upon request.
- Disclosures in connection with financial aid for which the student has applied or which the student has received. If the information is necessary for such purposes as to determine eligibility or conditions for the aid or the amount of the aid, or to enforce terms and conditions and federal, state or private regulations governing such aid.
- Pursuant to a judicial order or pursuant to a lawfully issued subpoena any Court or individual. Where permitted a reasonable effort will be made to notify the student of the order or subpoena in advance of the compliance therewith.
- In connection with certain types of litigation between the School and the student.
- To parents of a dependent child as defined by the Internal Revenue Code.
- In a health or safety emergency, where disclosure is necessary to protect the health or safety of the student or other individuals or as otherwise provided by FERPA.
- In a directory, as set forth below.

- To an alleged victim of a crime of violence, where the information disclosed is the final results of School disciplinary proceedings with respect to the crime or offense.
- Disclosure in connection with certain disciplinary proceedings.
- Certain disclosures to parents of a student regarding the student's violation of any federal, state or local law, or any rule or School policy governing use or possession of alcohol or controlled substances.
- To authorized federal, state or local officials and to accrediting bodies of the School.

The School will maintain a record of each request for access and each disclosure of personally identifiable information from educational records as required by FERPA regulations. The School will make a reasonable attempt to notify the student of disclosures made pursuant to Section 1(a) and 1(c-l) above. Upon request, the School will give the student a copy of the record disclosed. A student has a right to a hearing to challenge certain disclosures consistent with the procedures outlined above.

Directory Information

The Mount Sinai School of Medicine has designated the following information from a student's education record as "directory information," which may be disclosed under FERPA without the student's permission:

- Name
- Student Address
- Student Phone Number
- Degree Program(s) & Major Field of Study
- Degree(s) Earned and Date(s)
- Dates of Attendance
- Full-/Part-Time Enrollment Status
- Parent's Names
- Parent's Address
- Parent's Phone Number
- Academic Awards and Honors
- MSSM email address
- Prior Postsecondary Institution(s) Attended
- Photograph/Digitized Image
- Participation in officially recognized MSSM activities

Students' contact information is included in the student directory and published through WebEd.

Preventing Disclosure of Directory Information

At matriculation, a student signs a statement consenting to or refusing inclusion of the student's directory information. Students may change that permission by submitting an updated Disclosure of Directory Information Form to the Registrar's Office at the start of each academic year. Directory information about former students is not subject to these requirements.

The Mount Sinai School of Medicine and the Office of the Registrar will exercise discretion in the release of all directory information. In addition, The Mount Sinai School of Medicine does not release or sell directory information to any outside entity for commercial, marketing or solicitation purposes.

Records Kept by the Institution

- 1. Admissions Files
 - Application form
 - Supplemental form
 - Transcripts
 - Letters of Recommendation
 - Acceptance Letters
 - All Admission Test Scores

2. Academic Files (Registrar)

- Transcript of grades at MSSM
- Course, clerkship, elective and other evaluations
- Qualifying Exam Outcome
- Thesis Documentation
- National Board Scores
- Shelf Scores
- Dean's Letter
- Correspondence and internal communications pertaining to academic and other matters.

3. Financial Aid Records

- Application
- FAFSA Forms
- NeedAccess Forms
- Student and Parent(s) Tax and Income Information
- Proof of Citizenship
- Draft Status
- Social Security Number
- Drug Conviction Information (if any)

4. Bursar Records

- Record of Receipt of all Loans and Scholarships
- Record of cash paid and date paid

Academic Records are only those that pertain to official files kept in perpetuity in the Office of the Registrar.

Information Sharing and Confidentiality

MSSM recognizes that confidentiality is very important to students. It is a basic right and privilege and we believe that the issue of confidentiality is part of the trust that we expect and

value among students, teachers and administrative personnel. The following clarifies the protection of information related to students:

Health Information

- A. All student health information is protected information. There should be no sharing of information except as provided by HIPAA for the care of the student as patient. Teachers, administrative personnel and deans may not receive health information from students' health care providers except as provided by HIPAA
- B. There is certain information that hospitals and health care facilities require as a condition of employment. That information includes PPD, immunizations, and in some cases evidence of toxicology results. Students will be informed that that information is being shared as obtained by Student Health as composite data (we only know who does not comply with completing this information and then would deny clinical privileges but do not know the exact results)
- C. Toxicology screening is an institutional requirement. Any positive result will be reviewed by senior administrative representatives of the Deans (Graduate School and Medical School). The school may require a toxicology screen from any student at any time without need for a stated reason. Failure to comply with toxicology testing in the timeframe required will result in dismissal from school.
- D. There are times when the Administration may ask a student to comply with an Administrative Psychiatric evaluation. When it is decided that such an evaluation is necessary, the student will be informed and will be apprised of the list of questions that will be sent to an administrative evaluator (usually a psychiatrist). Students do not have the option to decline such an evaluation when required and would be dismissed from school if they fail to comply. The information referred back to the School will be discussed with the student and will remain in the student's file which can only be opened by a Dean or his official representative or if requested as a legal document.

Academic Information

Academic information is maintained by the School Registrar.

- A. Students have access to their academic file for review but will not be given copies of their file.
- B. The Registrar will not permit dissemination of the file information without the signed consent of a student unless required by law in accordance with FERPA Policy.
- C. Current teachers and clerkship directors do not have access to the student file, only deans and student affairs personnel in the Medical School may access the file.
- D. Any student wishing to review their file may do so in the presence of the Registrar or Dean's Designee coordinated through the Registrar.

Other information

If a student seeks counsel from a director, dean, teacher or ombudsman that information should remain confidential between the student and that individual.

A. Any plan to discuss information (e.g., Office of Student Affairs Representative or Program Director with one of the Dean's) should be with the student's knowledge and consent.

Exceptions to this confidentiality include concerns about the safety of the student, someone related to the student, or the student's dependent. Safety concerns include suicidal ideation, homicidal ideation, harming another individual substance dependency, behavioral or health concerns that may affect the student or others.

Access to Graduate Student Files

The Graduate School will share students' academic history on a "need-to know" request by faculty (course directors, advisors and MTA directors) in order to evaluate the student's progress and to facilitate the appropriate level of remediation, if necessary. This policy pertains only to information in files maintained by the Graduate School/Program.. Information about a student may be related to academic performance or professional behavior.

It should be emphasized that the purpose of this policy is to use constructive feedback in the educational process for the benefit of the student and to be supportive of the student's educational growth. Information about a student's marginal or failing performance and any documented issues related to professionalism may be shared, subject to approval by the Dean or Associate Dean of the Graduate School. This will ensure that the student is aware that his/her performance is being monitored and that remediation may be recommended. The Graduate School Dean or Associate Dean will monitor this in a confidential manner

12.8 Campus-Wide Policies, Regulations, and Requirements: Introduction

In accordance with the requirements of the Education Law of the State of New York, the Trustees of Mount Sinai School of Medicine have adopted rules for the maintenance of order and have established a program for their enforcement:

Rules of Conduct

- 1. All members of the School community, which for the purposes of these Rules and Regulations shall be defined as including faculty, students, organizations, members of the staff of the School, and all visitors and other licensees and invitees are expected to obey all national, state and local laws.
- 2. All members of the School community are prohibited from conduct which is proximate cause of or does unreasonably and unduly impede, obstruct or interfere with the orderly and continuous administration and operation of the School in the use of its facilities and the achievement of its purposes as an educational institution, or in its rights as a campus proprietor. Such conduct shall include, but is not limited to, that which is the actual or proximate cause of any of the following:
 - A. Unreasonable interference with the rights of others;
 - B. Intentional injury to School property;
 - C. Unauthorized occupancy of classrooms, laboratories, libraries, faculty and administrative offices, patient care facilities, auditoriums, public halls and stairways, recreational areas and any other facilities used by the School

(unauthorized occupancy being defined as failure to vacate any such facility when duly requested by the Dean, an Associate Dean, Assistant Dean, Hospital Administrator of similar responsibility or chair of a department of the School);

- D. Malicious use of or intentional damage to personal property, including records, papers and writings of any member of the School community;
- E. Any action or situation which recklessly or intentionally endangers the mental or physical health or involves the forced consumption of liquor or drugs for the purpose of initiation into or affiliation with any organization. The penalties set forth in Part II are in addition to any penalty pursuant to the penal law or any other chapter to which the violator or organization may be subject for violation of this paragraph.
- 1. Violations of these policies and regulations by students shall be referred to the Dean for Medical Education and, if warranted, to the Disciplinary Tribunal.
- 2. Nothing contained in any of the foregoing Rules and Regulations is intended to nor shall it be construed to limit or restrict freedom of speech or of peaceful assembly, or other individual rights guaranteed by the Constitution.

Student Behavior

The administration and faculty of the School are committed to providing a safe and healthy learning environment for all students. Students should conduct themselves appropriately everywhere on the campus of Mount Sinai, and at affiliated institutions. Appropriate behavior is mandatory when participating in patient care or attending any functions at which patients may be present. In small group seminars, as well as during clinical activities, students are evaluated not only on their fund of knowledge and ability to use this knowledge but also on their responsibility, dependability, reliability, maturity, motivation, attitude, honesty, integrity, and ability to relate and interact effectively with others.

Equally important, however, is the realization that one's responsibilities do not end with individual behavior but also include not tolerating inappropriate behavior among others. While formal mechanisms, outlined in other sections, exist to provide due process for any specific allegations of inappropriate behavior, general issues should be able to be discussed freely among peers, faculty, and administration. Concerns requiring confidentiality should be discussed with the Dean of Graduate School, individual faculty advisors, or through the School's Ombudsman Program.

Faculty, Staff, and Student Relations

Just as students are expected to behave in an appropriate and professional manner at all times, so also are faculty, staff, and other employees. Any allegations concerning harassment, abuse, or inappropriate professional behavior should be brought directly to the attention of one of the Associate Deans of the Graduate School or to a member of the Harassment Committee and Grievance Board.

The Executive Faculty has approved the following statement of principles concerning

interactions among faculty, house staff, and students:

All interpersonal interactions at Mount Sinai School of Medicine will be conducted in an atmosphere of respect and concern for the dignity of every individual. Under no circumstances will patients, students, faculty, or staff of Mount Sinai be treated, spoken to, or spoken about in a demeaning manner. Insulting language or behavior must not be tolerated. Faculty, house staff, and students are encouraged to speak up directly and immediately against unacceptable behavior or speech. If a house officer or student feels that it would be unwise to pursue such a matter directly, s/he should discuss the issue promptly with an appropriate academic supervisor, administrative supervisor, or dean.

Following are recommendations regarding the implementation of these principles:

- 1. Chairs of all departments will address these issues at a departmental administrative meeting or grand rounds every year.
- 2. Directors of training and course directors are encouraged to discuss (in a non-threatening format), with faculty and house staff, the etiology of inappropriate behavior and engage their collaboration in developing and implementing improvements.
- 3. Directors of training and course directors will ask for student evaluations of this aspect of their experience as part of their evaluations with every group of students.
- 4. Faculty and house staff will be advised that while appropriate personal behavior is absolutely necessary, it is insufficient. It is also required that inappropriate behavior or language on the part of others must not go without comment.
- 5. The Dean will issue an advisory regarding this policy to all faculty, house staff, and students. New members of the faculty, house staff and student body will be given copies of this advisory.
- 6. The Executive Curriculum Committee will periodically assess students' experiences to gauge the effectiveness of this initiative.

12.9 Mount Sinai Medical Center Social Media Guideline

Social media are internet-based applications, which support and promote the exchange of user-developed content. Some current examples include Facebook, Wikipedia, and YouTube. Posting personal images, experiences and information on these kinds of public sites poses a set of unique challenges for all members of the Mount Sinai community, including employees, faculty, housestaff, fellows, volunteers and students (collectively "Personnel"). All personnel have responsibility to the institution regardless of where or when they post something that may reflect poorly on Mount Sinai. Mount Sinai is committed to supporting your right to interact knowledgeably and socially; however these electronic interactions have a potential impact on patients, colleagues, Mount Sinai, and future employers' opinions of you. The

principal aim of this Guideline is to identify your responsibilities to Mount Sinai in relation to social media and to help you represent yourself and Mount Sinai in a responsible and professional manner.

The full Guideline may be found in the Faculty Handbook at the following URL: http://www.mssm.edu/about-us/services-and-resources/faculty-resources/handbooks-and-policies/faculty-handbook/institutional-policies/social-media-guidelines

12.10 Mount Sinai Policy on Business Conflicts of Interest

Mount Sinai Medical Center has an obligation to ensure that its trustees, faculty, employees and other staff adhere to the highest standards of ethical conduct free from any improper external influence or any appearance of impropriety. Situations can occur in which an independent observer might reasonably conclude that the potential for individual or institutional conflict could influence the manner in which individuals carry out their responsibilities or the decisions made by the institution. Even in the absence of an actual conflict of interest, such situations may require actions to minimize the appearance of a conflict.

At the same time, Mount Sinai understands that such individuals and their close family members may have relationships that could raise perceived or actual conflicts of interest, but could benefit Mount Sinai if carefully examined and properly managed.

In order to safeguard the integrity of both Mount Sinai and its constituents, Mount Sinai has adopted a rigorous conflicts policy predicated on full disclosure and appropriate management of any possible conflict of interest. This Policy on Business Conflicts of Interest (the "Policy") identifies those persons or entities covered by this Policy, sets out the requirements for disclosing potential business conflicts of interest, and specifies the procedures for reviewing such disclosures and determining what measures, if any, should be instituted to manage the conflict.

This Policy is intended to cover conflicts that arise out of business relationships. Mount Sinai has related policies that cover other types of conflicts, such as Mount Sinai's Policy on Financial Conflicts of Interest in Research and its Policy regarding Financial Relationships with Outside Entities.

 $\frac{http://www.mssm.edu/static_files/MSSM/Files/About\%20Us/Services\%20and\%20Resources/Faculty\%20Resources/Handbooks\%20and\%20Policies/Business\%20COI\%20Policy\%202010\%20amendments\%20v12.pdf$

13. Student Government

The Mount Sinai School of Medicine Student Council is composed of 20 members: four students from each class and four graduate students (one of which is from the Genetic Counseling Masters Program). The Student Council considers all academic, financial, and other matters related to being a student in the School of Medicine and the Graduate School. At the first meeting in September, the Student Council will elect a Secretary from the incoming first-year class and no more than four other representatives to create the Student Council Steering Committee. At the first meeting in May of each year, after the spring election, the offices of President, Vice-President, and Treasurer will be elected for the following year. This committee meets monthly with the Deans and meets jointly with the Faculty Council Steering Committee three times per year. As described in the section on Governance, the Steering Committee of the Student Council will oversee the development and approval of student budgets related to student activities supported by the Student Activity Fee.

A Student Affairs Committee will also be elected from the Student Council Representatives at the first meeting in September. This committee, comprised of five students, one from each class and one graduate student, meets three times each year with the Board of Trustees.

The organization of the Student Council, by-laws, and additional information may be found on the student council website at: http://www.mssm.edu/education/student-resources/student-government/student-council

14. Graduate School Committees

A. Biomedical Sciences Programs

1. Steering Committee: This Committee is advisory to the Dean of the Graduate School and addresses the educational goals, objectives and policies of the biomedical sciences programs (PhD, MD/PhD, MS) of the Graduate School. The Committee meets monthly.

The Committee consists of the co-directors, or their designee, of each MTA and four student members (2 PhD and 2 MD/PhD). The Associate Dean of Graduate Education in Translational Research represents the clinical research and patient oriented programs. In addition, the Dean may appoint faculty who represent other stakeholders to serve on this committee. Members of this committee will be appointed by the Dean for two-year, renewable terms. The Dean will appoint one committee member to serve as Chair for the academic year.

Student members are appointed as described below. Students on this Committee serve as liaison between the student body leadership (Student Council) and the leadership of the graduate programs.

A. MD/PhD Program Steering Committee: This Committee, a subcommittee of the Biomedical Sciences Steering Committee is advisory to the Dean of the Graduate School and addresses the educational goals, objectives and program-specific initiatives of students in the MD/PhD Program. The Committee meets twice per year.

The Committee includes the Associate and Assistant Directors of the Program and three MD/PhD student members (representing the preclinical, graduate and clinical phases of the program). In addition, the Dean, in consultation with the MD/PhD Program Director, may appoint faculty who represent other stakeholders to serve on this committee. Additional members of the Committee, nominated by the Dean of Medical Education, serve on this committee. The Director of the MD/PhD Program serves as Chair.

Student members are appointed as described below.

2. Curriculum Committee: This Committee is advisory to the Dean of the Graduate School and reviews and evaluates all courses and curricular issues for existing and new degree-granting programs. The Committee meets monthly.

The Curriculum Committee consists of faculty and four student members (2 PhD and 2 MD/PhD). At the beginning of the academic year, each MTA will nominate 2-3 faculty to serve on the committee. The Dean will select and appoint faculty for two-year, renewable terms. The Dean will also appoint one committee member to serve as Chair for the academic year. Each MTA will have at least one faculty representative.

Student members are appointed as described below.

3. PhD and MD/PhD Admissions Committees: These Committees evaluate and recommend to the Dean of the Graduate School candidates' admission or rejection to either of the two programs. These Committees meet regularly during the admissions season.

The PhD Admissions Committee consists of faculty and four student members. At the beginning of the academic year, each MTA will nominate 2-3 faculty to serve on the committee. The Dean will select and appoint faculty for two-year, renewable terms. The Dean will also appoint one committee member to serve as Chair for the academic year. Each MTA will have at least one faculty representative.

The MD/PhD Admissions Committee consists of faculty and two MD/PhD student members. At the beginning of the academic year, each MTA and the Associate Dean of Medical School Admissions will nominate 2-3 faculty to serve on the committee. The Dean, in consultation with the Director of the MD/PhD Program, will select and appoint faculty for two-year, renewable terms. The Director of the MD/PhD Program will serve as Chair of this Committee. While every effort will be made to ensure representation on the Committee by each MTA, priority will be given to faculty who are physician-scientists and thus able to understand the unique demands of the joint degree training program.

Student members are appointed as described below.

B. Clinical Research and Patient-Oriented Programs

1. Steering Committee:

This Committee is advisory to the Dean of the Graduate School and addresses the educational goals, objectives and policies of the clinical research and educational programs (MSCR, MPH, MGC, PhD in Clinical Research) of the Graduate School. The Committee meets monthly.

The Committee consists of the directors of these programs and the Associate Dean for Graduate Education in Translational Research. In addition, the Dean may appoint faculty who represent other stakeholders to serve on this committee. The Dean will appoint one committee member to serve as Chair for the academic year.

2. Curriculum Committee:

This Committee is advisory to the Dean of the Graduate School and reviews and evaluates all courses and curricular issues for existing and new degree-granting programs. The Committee meets monthly.

This Committee consists of faculty and student members representing the MSCR, MPH, MGC, and PhD in Clinical Research programs. At the beginning of the academic year, each program (MSCR, MPH, MGC, PhD in Clinical Research) will nominate 2-3 faculty to serve on the committee. The Dean will select and appoint faculty for two-year, renewable terms. The Dean will also appoint one committee member to serve as Chair for the academic year. Because of the short duration (2 years) of most of these training programs, selection of student representatives to serve on this committee is left to the Program Director. The term of student membership is one

year, except for the PhD in Clinical Research student representative, whose term will be two years.

Students on this Committee serve as liaison between the Graduate School Leadership and their respective graduate programs.

3. Admissions Committees:

Each degree-granting program will have its own admissions committee, which will recommend to the Director of their respective program the candidates for admission.

Number and status of student members

The Biomedical Sciences Steering and Curriculum Committees include up to four students each at all times (as indicated above). The PhD and MD/PhD Admissions Committees include up to four students each from their respective programs (as indicated above). Student members enjoy all privileges of committee membership, including the right to vote.

Term of membership of student members

Above committees consists of two consecutive years. Each year, two junior student members are appointed to each committee. Specifically, each year two students (one PhD and one MD/PHD) are appointed as new members of the Biomedical Sciences Steering and Curriculum Committees, two PhD students are appointed as new members of the PhD Admissions Committees; the first year of their membership overlaps with the second and last year of membership of the two senior student members. One MD/PhD student is appointed as a new member to the MD/PhD Admissions Committee each year to allow the two student representatives to serve staggered 2 year terms. Students who have completed a full term of service in a specific committee are ineligible to serve on the same committee again, but may post their candidacy for appointment as members of another committee in the graduate school.

Appointment process of student members

Each June, the Student Council solicits student candidates from the entire PhD and MD/PhD student population for open student positions on the above committees for the next academic year and forwards the names to the Dean of The Graduate School. The Dean of the Graduate School will review the credentials of the candidates and appoint the students to the committees, taking into account their year in the PhD program and their MTA. Student members begin their service on the respective committees in July. All student members must be in good academic standing to serve on any Graduate School Committee.

While students are appointed to Graduate School Committees, they are elected to the Student Council Sub-Committees listed below.

- Student Council Sub-Committees
- Social
- Athletic
- Library/Bookstore
- Health
- Community Service
- Housing/Security

15. Graduate School Forms

All forms referred to in this Handbook can be found on the Mount Sinai Website: http://www.mssm.edu/education/student-resources/registrar/graduate-school-forms

16. Graduate Faculty

Membership

The Graduate Faculty consists primarily of tenured and tenure-track academic faculty (assistant professors, associate professors, and professors) who have been appointed by the Dean of the Graduate School. The individual must demonstrate scholarly productivity, as evidenced by publication of original research, that he or she is competent to teach at the graduate level, is able to conduct independent research in an area relevant to one of the academic programs of the Graduate School, and, therefore, is qualified to oversee the education and training of a Ph.D. or Master's student.

The Graduate Faculty may also include non-tenure track faculty, professional staff, or others with an ongoing professional relationship with MSSM who are willing and qualified to contribute to the institution's graduate programs. Such individuals typically have been appointed as research, part-time, visiting, or adjunct faculty members, lecturers or instructors.

All nominations to the Graduate Faculty must be made by the Program/MTA director using the Recommendation for Graduate Faculty Appointment form and must include a copy of the nominee's CV.

Occasionally, specialized expertise from another institution, industry, government, or other sector, could be an asset to a graduate program. Individuals with no formal appointment at MSSM and individuals who do not qualify for full appointment to the graduate faculty may apply for an ad hoc appointment to the graduate faculty if they are interested in being a part of a graduate student's committee and they have the potential to make substantive contributions to that student's education. Ad hoc appointments terminate with the completion of the particular task for which the appointment was granted.

Members of the Graduate Faculty who leave the university may, upon request to the Dean of the Graduate School, remain on the Graduate Faculty in ad hoc status until all of the students whom they are advising or serving on committees for leave the university.

Privileges

Members of the Graduate Faculty are eligible to teach graduate courses, serve as a graduate course director, supervise master's students, serve as examining members or Chairs on master's and PhD advisory and thesis committees, and participate in academic governance of the Graduate School.

Length of Appointment

Appointment of new members to the Graduate Faculty is for a period of five years. At the end of five years, the member must be nominated and reviewed again. A Graduate Faculty member who is being considered for continued appointment is expected to show evidence of an ongoing research program and/or contributions to graduate education.

Graduate Faculty status is terminated concurrent with the termination of employment by MSSM. Graduate Faculty may resign their graduate faculty status at any time.

Review of Graduate Faculty

Members of the Graduate Faculty are expected to show evidence of active involvement in (or, for a beginning faculty member, qualification for) graduate student research supervision, teaching, and service on graduate student advisory and examination committees.

When, in a Program or MTA Director's professional judgment, a faculty member holding a Graduate Faculty appointment is no longer satisfactorily functioning in this capacity, s/he must recommend to the Dean of the Graduate School that the individual in question be removed from the Graduate Faculty. The Dean of the Graduate School may also initiate the removal process in consultation with the appropriate Program or MTA Director.

Graduate Research Mentor for PhD students

A Graduate Faculty member who wishes to sponsor a PhD student conducting a thesis project must provide evidence of a research program capable of providing a stable training environment for the student (in the basic science programs, this typically includes support for stipend, health insurance, tuition) before the Program/MTA Director and Dean of the Graduate School can approve the faculty member's role as a dissertation advisor of a PhD student.