MS in Integrated Biomedical Sciences Graduate College, Rush University A Manual for Students and Faculty Academic Year 2017-2018

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Rush University MS in Integrated Biomedical Sciences

Program Description:

The Master of Science in Integrated Biomedical Sciences program is designed to educate science professionals to have productive careers in research and academic positions, as well as for career advancement opportunities within their specialized fields. Graduates of this program will go on to perform high quality, impactful biomedical research at colleges and universities, government agencies, hospitals, non-profit agencies and industry. Students in the program will work with faculty and scientists to generate new knowledge in the fields of biomedicine through the application of sophisticated research methods. This degree is intended to offer students an intermediate step in a career path, provide research experience to supplement their primary professional path or provide supplementary training for other reasons.

The MS in Integrated Biomedical Sciences is designed to be completed within two years and requires completion of 37 semester hours (SH) of credit, which is distributed as core courses (20SH), track specific cognates (7SH), electives (4SH), and thesis research (6SH), creation of a thesis containing original research and defense of the thesis. The core curriculum, which will be common to all students, builds knowledge and skills in research theories and methodology, data analysis and statistics, laboratory applications and skills, and the molecular and cellular sciences basic to health and disease. These courses will provide systematic exposure to the contemporary process of scientific discovery and will serve as the basis for the remainder of the curriculum. In addition, students will be required, in conjunction with their advisors, to select from concentration focused cognates in one of five tracks: Translational Cancer Research; Cardiovascular and Respiratory Biology: Immunity, Infection & Inflammation Research; Function & Disorders of the Musculoskeletal System; and Function & Disorders of the Nervous System. All students will be required to participate in track specific Advanced Topic Seminars in terms 4 and 5. All students will also be required to complete a minimum of 6SH dedicated to completion of their thesis research project. Thesis research hours are consistent across all of the tracks within the Integrated Biomedical Sciences MS program and encompass laboratory research time required for completion of the thesis including: analyzing published data, developing a research proposal, learning and applying advanced methodologies and statistical data analyses, developing skills to write a project proposal, practicing presentation skills to disseminate own research findings, and developing, writing, presenting and defending a thesis project.

Program Goals:

- (1) Develop individuals who can formulate appropriate research questions, organize and test hypotheses, interpret the findings in a robust manner, and apply research results to biomedical sciences.
- (2) Prepare competent Biomedical Science professionals at the Masters level with interdisciplinary knowledge and experiences who can successfully function within inter-professional research teams in areas from basic science to healthcare delivery.
- (3) Provide specialized training in professional skills development enabling the graduates to function as competent and capable researchers, educators and managers in their specialized field.
- (4) Enable students to find satisfying careers in the biomedical sciences. Students will create Individual Development Plans (IDP) to better define their areas of interest including teaching, administration, research in industry, or academic research during

the first year and will continue to actively explore career opportunities and create career development goals throughout the rest of their graduate career. This will include use of the AAAS IDP website, attendance at special seminars and events hosted by the graduate program at Rush and other nearby Institutions, and active pursuit of opportunities that will provide exposure to experiences related to career goals. Upon graduation, the graduate will use the IDP to refine their career interests and will have benefited from mentorship and training opportunities in their chosen career paths.

Student progress will be evaluated and monitored by the faculty advisor and an interdisciplinary Thesis Committee that is comprised of Rush Graduate College faculty members with expertise in the selected area of research. The completion and defense of a research thesis is required for degree conferral. Recipients of the MS degree in Integrated Biomedical Sciences will demonstrate the capability to conduct rigorous, impactful research that contributes to and expands knowledge in the biomedical sciences.

Student Learning Outcomes:

Graduates of the Master of Science in Integrated Biomedical Sciences will be able to:

- (1) Contribute to the body of knowledge in the biomedical sciences through critical inquiry, scientific reasoning and scholarly pursuits
- (2) Conduct research that adheres to ethical principles and professional standards
- (3) Collaborate with multidisciplinary teams in the design, conduct of experiments and contribute to the dissemination of biomedical research

Student achievement will be assessed through a variety of direct and indirect performance measures that include but are not limited to: examinations; participation in class discussions and seminars; written assignments; journal club presentations; outside scientific presentation; laboratory skill demonstrations; student, alumni and employer surveys; research thesis completion; and roles and contributions within the academic and scholarly community. Student progress will be assessed based on their meeting specified milestones and myIDP professional development goals throughout the course of the program.

Registration:

Initial registration can occur in the months preceding the start of classes.

Subsequent registrations: Registration times for continuing students are specified in the University timetable (available from the Registrar's website). The student will also be notified when registration is due by email and is required to register within the indicated timeframe. This is usually 2-3 months before the start of classes. There is a \$50 fee for late registration. There is an additional late fee of \$50 if the students register after classes start. Do not delay registration for consultations, as you will incur late fees. Students may change their registration after consultation using Drop/Add privileges, which will not incur a fee.

In the first year, students should register for the courses listed in the year 1 curriculum. Questions should be addressed to the Assistant Program Director. Students with advance standing should meet with the Assistant Program Director prior to registration in order to determine individual course schedules.

Students who have progressed to the point where they are eligible to select a track are required to discuss course selection with their Track Director prior to registration.

Immediately following online registration, all students must submit a paper copy of their registration to the Graduate College Office.

Expectations:

Students are expected to become independent critical thinkers who are able to effectively present their research in oral and written formats.

The Graduate College requires that all students remain in good academic standing by maintaining at least a "B" (3.0) average. Failure to do so will result in the student being placed on probation and, if the student does not regain a B average following one semester of probation, they may not be permitted to register for subsequent courses or semesters without the approval of the Committee on Progress and Promotions. For more information see the Academic Standing section of the University Catalog in the appendix.

All outside employment is strongly discouraged and requires express approval by the Graduate College. This excludes activities that would be in line with IDP goals like tutoring, teaching and proctoring.

Students are expected to conduct themselves in a professional manner. This includes respecting the rights of others and being kind and courteous to students, faculty and patients. Intimidation of other students and staff will not be tolerated and is grounds for dismissal. All students are expected to sign and abide by the University Honor Code. Actions that violate the University Policy on Academic Honesty and Student Conduct (see appendix) should be reported to the Honor Code committee. The Honor Code is also listed in the appendix along with the bylaws for the Honor Code Committee. The Graduate College Honor Code Committee bylaws contain information on reporting infractions and how such reports are handled.

Sexual harassment as well as harassment related to race, color, religion, sexual orientation, national origin, ancestry, age, marital or parental status, or disability is prohibited. The University Catalog details the policies regarding inclusion of minorities and those with disabilities as well as the policies and procedures for reporting harassment. All issues regarding sexual harassment as well as harassment related to race, color, religion, sexual orientation, national origin, ancestry, age, marital or parental status, or disability are covered under University Policy and are referred directly to the Office for Equal Opportunity (See University Harassment policy in the appendix).

Students working with laboratory animals must follow IACUC guidelines and will be subject to disciplinary action in the case of abuse.

Evaluation:

The Graduate College is actively evaluating the program. Please respond to surveys and to course evaluations in a thoughtful and constructive manner. Such good faith participation is needed to help us improve the educational experience and outcomes for both current and future students. In order for such changes to be beneficial, we need honest and professional feedback from you.

Changes to the Program:

You may be affected by changes to the program during your studies due to changes in policy or course offerings. Changes in policy may be necessary to bring the program in line with changes in Graduate College and or University policies. You will be notified in writing or by email of any program changes, and such notification will override the contents of this manual.

Changes to the curriculum may include revision of courses or the addition or deletion of particular courses. Students will be notified in writing or by email of the changes and may be required to take the new or replacement courses. However, curriculum changes will not be made retroactively. For example, changes in the first year curriculum will not affect second year students. Likewise, students who have already taken a course will not be required to take the replacement for that course unless that course has changed substantially.

Organization of the Integrated Biomedical Sciences MS Program

Program Director/Assistant Program Director:

The Program Director chairs the IBS Education Committee, oversees the Track Directors and is ultimately responsible for the overall execution of both the PhD and MS programs. The Assistant Program Director is primarily responsible for the MS program. The Assistant Program Director will create and update an individual course plan with each student and approve your registration during the first year. (The Program Director fulfils the above roles for the PhD students.) The Assistant Program Director works with the IBS education committee to clarify and update policies and procedures, monitor the progress of first year MS students, and interactively works with the Track Directors to help MS students find rotation and thesis mentors, track placement and appropriate track-specific cognate courses to fulfill their requirements. Both the Program Director and Assistant Program Director are very interested in feedback concerning curriculum and student life issues. Your input helps us do our jobs better!

As the student moves into the second year, the Track Directors and the Research Advisor are responsible for advice and consultation regarding course registration and programs of study. However, the Program Director and Assistant Program Director remain available for student consultation and may be contacted directly.

Associate Program Director:

The Associate Program Director is concerned with the implementation and evaluation of the program. If the Program Director is not available the Associate Program Director will temporarily assume the duties of the Program Director.

Track Directors:

The Tracks are: Translational Cancer Research (CAN); Cardiovascular and Respiratory Biology (CVR); Immunity, Infection & Inflammation Research (III); Function & Disorders of the Musculoskeletal System (MSK); and Function & Disorders of the Nervous System (NEU).

The Track Director will help oversee the students once they have chosen their track to assure there is timely progression towards degree completion within 2 years. This includes ensuring that the student follows a proper plan of study fulfilling track requirements, cognates and electives; assuring that the student has an IDP and that the selection of courses meets their objectives; and helping the student in the formation of a thesis committee that meets as required by the Graduate College. The Track Director will work in close communication with the Research Advisor to assess student progression by participation in meetings of the thesis committee, specifically the proposal and thesis presentation. If deemed necessary, additional meetings between the student, Advisor and Track Director may be held to assess student progress and ensure completion of program requirements.

Integrated Biomedical Science Education Committee:

The IBS Education Committee is composed of the Program Director, the Associate Program Director, the Assistant Program Director, the Track Directors, a student representative, and two faculty representatives. The IBS Education Committee is chaired by the Program Director. In the event of the absence of the Program Director the Associate Program Director should chair the meeting. This Committee appoints an Admission Committee that makes recommendations for admission to the Dean of the Graduate College. The Committee evaluates student feedback and recommends changes to the curriculum. The IBS Education Committee also reviews and approves rotation, track, and mentor requests, updates the program policies and procedures, evaluates the results of the qualifying exams for the PhD students, hears appeals on the remediation of grades and complaints concerning academic dishonesty, non-professional behavior and student misconduct that are not covered in the University Harassment Policy. All issues regarding harassment are referred directly to the Office of Equal Opportunity of the University.

Graduate College Council

The Graduate College Council is the senior representative body for The Graduate College. The Council is comprised of all Program Directors, an elected representative from each program/division, and three elected student representatives. Only elected members are allowed to vote. The Graduate College Council considers issues and topics such as the Graduate College Curriculum that affect all graduate programs. The Graduate College Council meets monthly on the first Thursday and is chaired by a Graduate College faculty member.

Graduate College Student Council (GCSC)

President: Matt Russo, Matthew L Russo@rush.edu

Vice President: Terese Geraghty, Terese_Geraghty@rush.edu

Faculty Advisor: Nell Lurain, PhD, Nell_Lurain@rush.edu

The Graduate College Student Council is an open forum, whereby any student member of the Graduate College (PhD or MS) can attend meetings held by the elected graduate student representatives. These meetings are for the students to discuss concerns related to the graduate college, including the curriculum, insurance, academic matters, fund raising, degree requirements, professional development opportunities, as well as community engagement. All issues raised at these meetings will be brought to the attention of the Graduate College Council. Also, the GCSC coordinates awards given to the faculty by the graduate students (Mentor of the Year and Excellence in Teaching Award). We encourage all students to participate because your input is essential. Students serving on the council are provided the opportunity to take an active role in college governance; serving as liaisons who interact between the student body, the Graduate College, and the University.

Also, as part of a community of science professionals, the Graduate College Student Council should partake in university or community outreach programs such as fundraisers, elementary school science demonstrations, and philanthropic work deemed appropriate by the members of the council that year. In more recent years, the GCSC have instituted the *Emerald Event*, their largest fund-raiser for the students of the

Graduate College to attend scientific conferences and present their research. Since its beginning, the GCSC has raised money to pay for well over 50 travel awards. The GCSC has also helped in various charitable endeavors which raise money for research; as well as university-sponsored fund-raisers including golf-outings, wine and cheese art auctions, and smaller projects throughout the year. The GCSC also organizes several social outings from BBQs to whirly ball competitions, to intra-departmental sporting competitions.

Contacts and Communication:

Integrated Biomedical Science Program Administration

IBS Program Director: Linda Baum, PhD Linda L Baum@rush.edu

(312) 942-2881 Cohn 314

Associate Program Director: Ed Barker, PhD <u>Edward Barker@rush.edu</u>

(312) 942-3136 Cohn 620

Assistant Program Director: Amanda Marzo, PhD <u>Amanda_marzo@rush.edu</u>

(312) 942-7268 Cohn 514

Track Director (TCR): Jeffrey A. Borgia, PhD Jeffrey_A_Borgia@rush.edu

(312) 942-7837 Jelke 1414

Track Director (CVR): Kathrin Banach, PhD Kathrin_Banach@rush.edu

(312) 563-3553 Jelke 1577

Track Director (III): Linda Baum, PhD Linda L Baum@rush.edu

(312) 942-2881 Cohn 314

Track Director (MSK): Tom Schmid, PhD Tom Schmid@rush.edu

(312) 942-3051 Cohn 524

Track Director (DNS): Dan Nicholson, PhD Daniel_Nicholson@rush.edu

(312) 942-5418 Jelke 1474

Graduate College Administration

Dean (acting): James Mulshine, MD James_L_Mulshine@rush.edu

(312) 942-3588 AAC 438

Assoc. Dean: Gabriella Cs-Szabo, PhD Gabriella_Cs-Szabo@rush.edu

(312) 942-2255 AAC 438

Students will be given a Rush email account, which will be used for communication from Rush University, the Graduate College and others involved in the program. **This is our official way of contacting students and it is important to monitor this account**. An email sent to this account may notify students of program, scheduling or registration changes and constitutes **official notification**. It is essential that students make sure Rush accounts are working and check it regularly.

Curriculum for 2017-2018 IBS MS Students

Course number	Course Title	Semester hours
Year 1: Fall 2017-18		
BTN 523#	Tools for Research	1
BTN 525	Experimental Design and Models of Disease	2
GCC 501	Molecular Biology and Human Genetics 2	
GCC 502	Cellular Biochemistry: Proteins, Transport and Signaling 2	
GCC 503	Functional Cell Biology 1	
GCC 511*	Advanced Readings in Molecular Biology 1	
GCC 512*	Advanced Readings in Cell Biochemistry and Cell Biology (elective)	1
GCC 505	Techniques in Biomedical Sciences	2
GCC 530	Laboratory Rotations I	1
Spring 2017-18		
GCC 504	Functional Tissue Biology	3
GCC 506	Research Ethics	1
GCC 507	Biomedical Statistics	2
GCC 508	Writing Practicum	2
GCC 514*	Readings in Functional Tissue Biology (elective)	1
GCC 533	Laboratory Rotations II	1
	**Track Specific Cognates (1-4)	V
Summer 2017-18		
GCC 599	Thesis Research	2
Year 2: Fall 2018-19		
GCC 694-698	Advanced Topic Seminar (track specific)	1
GCC 599	Thesis Research	2
	* Electives (1)	V
	**Track Specific Cognates (2-4)	V
Spring 2018-19		
GCC CC 694-698	Advanced Topic Seminar (track specific)	1
GCC 599	Thesis Research	2
	** Track Specific Cognates (2-4)	V
	* Electives (0-1)	V

GCC = Graduate Core Curriculum – These classes are taken by MS and PhD students from a variety of different graduate programs. These provide a basic understanding in the Biomedical Sciences and acquaint the students with the biomedical literature. Classes marked with a # can count towards core or electives. * One of GCC 511, 512, and 514 must count toward core classes.

BTN = Biotechnology courses- Taken with the Biotechnology students. Course descriptions can be found in the Graduate Catalog.

- * **Electives**: GCC 511, 512/513 and 514 are reading courses associated with GCC 501, 502, 503 and 504
- ** Track Specific Cognates actual course numbers will vary with elective or cognate required by the track. Consult with your Track Director and Research Advisor.

Note: The Integrated Biomedical Sciences graduate program may revise courses and the student may be required to take the replacement courses. Such a requirement does not apply to students who have already taken a course.

MS Program Progression:

Year 1 Classes

The goal of the coursework in the first year is to expose the students to the biomedical sciences in a logical progression and to provide tools for approaching their future research experience. The reading courses provide a critical understanding of the literature and existing base of knowledge. They will also show the student how new knowledge in these areas can help us understand diseases and use this information to identify new therapeutics. This broad-based approach to disease is the core of the Integrated Biomedical Sciences program.

Year 1: Research Experience, Advisor and Research Track Selection

During the first year the student will typically have 2 lab rotations in different laboratories. The laboratory rotations will expose the student to diverse research environments and allow them to assess their 'fit' in a particular laboratory/mentor situation. Students are expected to learn techniques and attend all scheduled experiments, lab meetings, mentor-student discussions, etc. Based on these rotations, students will submit the name of a potential advisor and their track choice to the Integrated Biomedical Sciences Education Committee. The Integrated Biomedical Sciences Education Committee, in consultation with the potential advisor, will approve advisor-student matches. Specific research projects will be determined by the thesis advisor after advisor-student discussions. If a student cannot choose a thesis advisor based on their first two laboratory rotations, a third rotation may be taken (Spring or Summer). The selection of a research advisor and project will determine the student's selection of a research track.

Year 2: Classes, Research Experience, Thesis Committee, Thesis Proposal and Thesis Presentation

Any classes will be dictated by the track cognates and electives available that academic year. Course selection should complement research activity and the interests of the student and should help prepare him or her for the career choice identified through the use of the Individual Development Plan (IDP) website and additional resources provided by the Graduate College. When the student is not in class or studying, the student should be working on his or her research project.

The student's assessment at this time relates to the following student outcomes:

• The graduate is able to acquire research skills, collect and analyze data, and interpret results in order to address an original research question.

In addition, this step begins the continuing assessment of the following outcomes:

- A graduating student is capable of independent critical thinking and writing as well as proposing, performing and effectively presenting his or her research.
- The graduate is able to work collaboratively with other scientists, physicians and health care professionals to give and obtain feedback concerning the approach to research problems, data analysis and implications of research.

The student creates an Individual Development Plan (IDP) to better define his or her areas of interest including teaching, administration, research in industrial or academic environments or further professional education. Upon graduation, the graduate will have used the IDP, mentorship and training opportunities to refine his or her career path.

In consultation with their advisor, the student chooses a Thesis Committee consisting of the advisor, and two additional Graduate College faculty members. Committee members should be familiar with either the research area or crucial technical aspects of the student's project. Each student will write a succinct research project proposal which will be presented to the committee for approval. The proposal serves to keep the student focused on achieving the aims of their project and allows the committee to track student progress based on the stated aims. Students should view the committee members as a resource for didactic and technical assistance in the conduct of their project.

The student is expected to write a Thesis .and present their research to the Rush research community (Thesis Presentation). The Thesis Committee will then meet with the student to address any questions or issues related to the data or format of the Thesis document. The student may be asked to make revisions before final Thesis approval by the committee.

Minimal Credit Hours Required for the Integrated Biomedical Sciences MS Degree

The program is designed to be completed in five consecutive semesters and requires completion of at least 37 semester hours including 20 credit hours of core courses, 7 credit hours of track-specific cognates, 4 credit hours of elective courses, and 6 hours of thesis research credit. The core curriculum focuses on developing knowledge and skills in research theories and methodology, data analysis and statistics, laboratory applications and skills, and the molecular and cellular sciences basic to health and disease. In addition, students will work with faculty advisors to select one area from five available tracks: Translational Cancer Research (TCR), Cardiovascular and Respiratory Biology (CVR), Immunity, Infection and Inflammation (III), Function and Disorders of the Musculoskeletal System (MSK) and Function and Disorders of the Nervous System (DNS). Students in this program will have a research project and will write a thesis and give a thesis presentation at the completion of their project.

The core curriculum, which will be common to all MS students, builds knowledge and skills in research theory and methodology, data analysis and statistics, laboratory applications and skills, and the molecular and cellular sciences basic to health and disease. These courses will provide systematic exposure to the contemporary process of scientific discovery and will serve as the basis for the remainder of the curriculum.

Students will be required, in conjunction with their advisors, to select 7 credit hours of courses from concentration-focused cognates in their chosen track and a minimum of 4 elective credits from the Graduate College courses offered. Finally, students will be required to accrue a minimum of 6 credit hours of Thesis Research. MS students will be encouraged to participate in track-specific Advanced Topic Seminars in their second year. These will count as cognate credits.

Integrated Biomedical Sciences: Academic Policies - MS Program

Academic Advisor/Principal Advisor

The IBS Assistant Program Director functions as the academic advisor to the students during the first year of matriculation in the program. After 2 rotations, the student will identify the track that he or she wishes to enter and will begin working in the laboratory of his or her research advisor. At this time, the Track Director along with the research advisor will serve as mentors for the student.

Research Advisor Selection

During the first year, the student, in consultation with the Assistant Program Director and Track Directors in areas related to the student's interests, will select 2 laboratories for research rotations. Based on these rotations, the student will identify the track he or she is interested in and submit the name of a potential advisor to the IBS education committee. The IBS education committee will match students with advisors.

Guidelines for Rotation Reports:

Format: 3 pages maximum

Your report should start with the following information:

- Student
- Rotation Advisor
- Other mentors and their roles in the project
- Dates of rotation
- Number of hours spent in the rotation per week

Body of Report should have the following sections:

- Hypothesis
- Aims
- Introduction/Background
- Methods
- Results
- Discussion/Conclusions

Were you satisfied with the rotation experience?

Rubric for Evaluating Student Performance during Laboratory Rotations – Rotation Advisors should fill out 1-5 and add any comments they wish to add.

Evaluators should use the following scale to rate student performance for items 1-6 A = 4; B = 3; C = 2; F = 1

1.	Professionalism: Student was present at appropriate times and spent an adequate amount of time on their research project	
2.	Preparedness/participation: Student showed enthusiasm for learning lab techniques/procedures and prepared by previewing relevant information	
3.	Literature: Student reviewed pertinent literature for their project and was able to summarize/discuss with mentor and/or lab personnel	

4.	Lab Notebooks: Student was diligent and followed GLP procedures with lab notebook
5.	Interpersonal Interactions: Student interacted/cooperated with mentor and other lab personnel in a positive and constructive manner
6.	Final Report: (evaluated by Track Director) Student submitted final report of rotation experience (no later than 2 weeks post-rotation) and included the required components
Final F	Rotation Grade (avg. must be 3.0 or greater to pass)

The final rotation grade is given by the Program Director taking the rotation advisor's evaluation, the research report and other related information into consideration.

Integrated Biomedical Sciences: Track/Research Opportunities

The research tracks for the Integrated Biomedical Sciences PhD program are Translational Cancer Research; Cardiovascular and Respiratory Biology; Immunity, Inflammation, and Infection; Functions and Disorders of the Musculoskeletal System; and Functions and Disorders of the Nervous System. The tracks include qualified faculty from Rush University Medical Center who have an interest in research in these tracks. They come from academic departments as well as clinical departments, which enables the students to select a variety of individuals with basic and clinical expertise to serve on their advisory committees and guide them through their projects.

Master's Thesis Research Committee

After the student selects a research advisor and begins to collect preliminary data, the student and advisor will select a research committee in consultation with the track director. This committee will advise the student and evaluate his or her proposal and thesis documents. The thesis committee will consist of the advisor and two additional Graduate College faculty members. Committee members should be familiar with either the research area or crucial technical aspects of the student's project. Committee members are intended to be a resource for the student and their advisor to enhance didactic and technical knowledge towards the completion of the student's project. The Track Director (or their designated representative) will serve as an ex officio non-signing member of the thesis committee to oversee the procedural aspects of the committee meetings and student progression through the program. The thesis committee will strive for consensus in all its actions; however, a majority vote of the committee's membership is sufficient for all activities and approvals.

Research Proposal

Each student will write a succinct research project proposal (~ 3-10 pages.) which will be presented to the committee for approval. The proposal serves to keep the student focused on achieving the aims of their project and allows the committee to track student progress based on the stated aims. Ideally, proposals should be modeled after the NIH R21 Grant Application; students should consult with their advisors regarding formatting of their proposal. The target date for proposal presentations is within the first 45 days of the start of the Fall semester of year 2; it is also acceptable for the proposal presentation to be held in the summer term between year 1 and 2. The thesis committee evaluates

the feasibility and scope of the project and recommends alterations as needed to ensure adequate student progress through the MS IBS program in a timely fashion.

Thesis Document, Presentation and Approval

The student is expected to write a Thesis document (approved by the director of the Library of Rush University Medical Center) and present the work in a public lecture attended by the thesis committee, faculty and students of the University. The thesis committee will then meet with the student in closed session to address any additional questions and to deliberate on approval of the thesis. Typically the meeting immediately follows the public lecture. The student may be asked to make revisions before final thesis approval by the committee.

The registrar's office must be notified of impending completion of the degree by submission of an Intent-to-Graduate form at the beginning of the final semester. As the thesis is reaching final form, the student should consult with the University librarian to assure that the document is formatted correctly. Once the thesis is approved, the student will complete the final checklist to assure that all necessary approvals have been obtained. Students will be required to have an exit interview and provide feedback concerning their experience at Rush University.

Student Grievance Procedure

A student who is having difficulty with a course should contact his or her course director to discuss the situation and possible avenues of action. A student that anticipates being absent from class or faces an emergency that will impact his or her attendance or performance should contact their course director(s). A student with a problem in laboratory rotations or thesis research should attempt to resolve the issue through direct communication with the laboratory advisor or mentor. A good faith attempt to plan/resolve any issues directly with the course director, laboratory advisor or mentor should always be the first course of action. If this fails, the student should bring the concern to the program director if the student is a first-year student or to their track director if the student has already identified a track. The program director or track director will work with the student and faculty member(s) to resolve the issue. If it is a serious issue, the program director, track director or faculty member may involve the Education Committee. The student may also appeal directly to the Education Committee by requesting in writing that it meet to discuss the issue. The Education Committee will meet within 10 days to render a judgment to best address the interests of the student within the guidelines of the Integrated Biomedical Sciences program.

The Education Committee will also hear complaints concerning academic dishonesty, nonprofessional behavior and student misconduct. The Education Committee may become involved through a direct request from a student or faculty member or by a referral from the Honor Code Committee. If the Honor Code Committee has not been involved, the Education Committee may refer the initial request to the Honor Code Committee. The Education Committee will hear testimony from any involved faculty and/or students. They may recommend remediation or disciplinary measures. Recommendations for dismissal or suspension are made to the office of the Dean of the Graduate College. Appeals will be heard by the Graduate College Council (GCC) or a subcommittee of the GCC that will be organized solely for the purpose of hearing the appeal and making a recommendation to the Dean. The ultimate decision regarding student expulsion or suspension rests in the office of the Dean of the Graduate College.

Graduate College/Rush University Academic Policies

Students must maintain a B average in the first year. If they drop below a B average, they should discuss the possibility of remediation with the director of the course they had difficulty with. The course director may issue an incomplete grade for a limited time in accordance with university policy while agreed-upon remediation takes place. However, once a failing grade (No Pass or letter grade less than B) has been given, the Education Committee must approve a remediation plan. Until a grade is remedied or the average is improved in some other way, the student is on probation. A student who remains on probation for two semesters will be dismissed.

Students who have entered a track must receive at least a B grade in any courses deemed required by their tract director. Failure to remediate a grade of less than B in a required course or a no-pass grade in a pass/no-pass course or the receipt of another such grade while on probation will result in dismissal.

Transferring Credits:

If a student has previously taken courses required for this program, they may either be transferred or requirements may be waved. If a course is transferred, then the student will be given credit for that course. If a requirement is waved, the student may have to take other courses to fulfill the number of required hours of core, cognate or elective hours.

Graduate level transfer credit is subject to approval by the Education Committee based on an evaluation of quality and equivalence by the course director. For graduate level programs, no more than one-third of the total number of required credits with a letter grade may be granted to a student as transfer credit for work done at another graduate institution. Grades may only be transferred if a letter grade of B or better was received.

Transfer credits can only be applied to satisfy the degree requirements of one program. Once applied, they cannot be used a second time for a new degree program. Previously earned program credits at Rush University may only be used to satisfy the requirements of another program if they are at the graduate level and if they meet the current curricular standards.

The number of credits granted for a given course cannot exceed the number awarded for the course on the transcript of the school where the course was taken or the number earned for the corresponding course at Rush University. Credits earned on the quarter system will be converted into semester credits where applicable. A quarter credit is equal to two-thirds of a semester credit (e.g. three quarter-system credits equal two semester credits). Course information (including grades) from transferred courses is not recorded on the student's transcript; only the number of credits is recorded and added to the cumulative number of credits.

In situations where students have advance standing in professional schools including Medical and Dental school, exceptions will be considered on a case-by-case basis.

Dropping Courses:

In year 1, a course may be dropped only with permission from the Program Director. After a student has entered a track, a course may be dropped only with the permission of the Track Director, followed by the approval of the IBS Program Director.

Appeal of Grades:

A student having difficulty with a course who anticipates being absent from class or faces an emergency that will impact their attendance or performance, should contact their course directors. A student who experiences a problem in their laboratory rotations or research should attempt to resolve the issue through direct communication with the Research Advisor. A good faith attempt to plan/resolve any issues directly with the course director or Research Advisor should always be the first course of action. If this fails, the student should bring their concern to the Program Director if they are a first year student or to their Track Director if they have already identified a track. The Program Director or Track Director will work with the student and faculty member(s) to resolve the issue. If it is a serious issue, the Program Director, Track Director or faculty member may involve the Integrated Biomedical Science (IBS) Education Committee. The student may also appeal directly to the IBS Education Committee by requesting in writing that it meet to discuss the issue. The IBS Education Committee will meet within 10 days to render a judgment to best address the interests of the student within the guidelines of the Integrated Biomedical Sciences MS program.

Students must maintain a B average. If a student's cumulative GPA drops below a B average, they will be on academic probation. They should meet with the Educational Committee to determine an appropriate course of action to enable the student to regain a B average. They should also discuss the possibility of remediation with the course director of the course(s) they had difficulty with. The course director may issue an incomplete grade for a limited time in accordance with university policy while agreed upon remediation takes place. If a student's PGA is less than 3.0 for 2 semesters, the Education Committee, who will determine whether or not the student should be dismissed, must review the student's progress. Students who have entered a track must receive at least a B grade in any courses deemed required by their Track. Failure to remediate a grade of less than B in a required course will be grounds for dismissal.

University Appeal Process:

The University has an appeal policy that allows for an appeal beyond the Graduate College. The University Appeal Policy is limited to the following issues: 1) a final course grade, 2) failure on a preliminary or comprehensive examination, 3) failure of the thesis/dissertation that results in his/her academic probation or dismissal from the University or an unreasonable delay in his/her graduation from the University.

The University appeal policy is covered in the "Appeals Procedure" in the University Catalog (included in the appendix).

Dismissal of students:

Grounds for student dismissal include, but are not limited to, the following:

- 1. Academic deficiencies
- 2. Inability to find a Research Advisor
- 3. Insufficient research progress
- 4. Exceeding the 2-year limitation for the MS degree without permission from the Graduate College
- 5. Unprofessional conduct or, if in the view of the IBS Education Committee, of if the student is unsuitable for a scientific career.
- 6. Failure to live up to conditions specified in the letter of acceptance into the Graduate College.

Course Descriptions

Integrated Biomedical Sciences Courses

BTN 523 Tools for Research

Application of computer, digital imaging and other supporting technologies are presented and practiced. FA [1]

BTN 525 Experimental Design & Models in Disease

This course will study the role of the experimental model in research. The various aspects of experimental models, computer (in silico) to animal models, will be discussed, building on principles of experimental design. This course requires the student to critically evaluate published work and develop their model for a given disease. Research problems posed by faculty will be understood, developed and solved by students in a cooperative interactive application of computer and library resources. FA [2]

GCC 501 Molecular Biology: Genome to Proteome

DNA structure, replication, recombination, cloning, sequencing and related topics will be covered. This course will continue with organization of the human genome, the cell cycle, genetic mapping and relationships between genes and diseases. Transcriptional and translational regulations will be included. FA [2]

GCC 502 Cellular Biochemistry: Proteins, Transport and Signaling

Concepts of cellular biochemistry, which underlie the structure, organization, and communication of cells will be presented. Protein, carbohydrate and lipid structure and function in cellular organization will be covered. Special emphasis will be placed on the roles of enzymes, signaling systems, receptors and membrane transport systems in cell function. This section will also overview neurons, synapses and neurotransmitters. FA [2]

GCC 503 Functional Cell Biology

The major concepts of cell structure and function will be covered. Topics include tissue origin and organization, extracellular matrix, cytoskeleton, cell-cell adhesion, organelles and compartments, endocytosis, exocytosis, metabolic requirements for signal transduction, cell motility, and regulation of cell proliferation. FA [2]

GCC 504 Functional Tissue Biology

The biochemical and cellular basis for tissue structure and function will be covered. Topics include systems histology and anatomy, immunity, tissue injury and repair/regeneration, regulation of cell-cell adhesion, apoptosis, endocrinology, pharmacology, and toxicology. SP [3]

GCC 505 Techniques in Biomedical Science

This laboratory course will provide a didactic overview and a demonstration of certain laboratory techniques. Topics include electrophoresis, genomics, PCR, tissue culture, cell-sorting techniques, ELISA, chromatography/LC mass spectrometry, imaging techniques, histocytochemistry and microscopy. Additionally, students will be required to take the relevant Rush University Medical Center safety training modules on LEAP (the on-line training platform) before they can commence any laboratory rotation experience.

A series of faculty presentations will be included to help students choose specific laboratories/mentors for their rotations. FA [2]

GCC 506 Biomedical Ethics

The major issues of honesty and fairness as practiced in the scholarly pursuit of new knowledge will be reviewed. Topics include equal opportunity and non-discrimination, abusive relationships, student-faculty relationships, responsibilities of students, faculty, chairpersons and administrators, honesty in writing, authorship, and ownership of data. SP [1]

GCC 507 Biomedical Statistics

This is an introduction to study design and hypothesis testing. Topics include data definition, study design, probability theory, confidence intervals, hypothesis testing, and the techniques used in modern biostatistics. SP [2]

GCC 508 Writing Practicum

This is a hands-on writing course, which focuses on the requirements for abstract, manuscript and grant application writing. Topics include abstract writing, manuscript writing and grant writing. Each topic is covered in several sub-components. SP [2]

GCC 511 Readings in Molecular Biology

Journal club that covers topics related to GCC 501. FA [1]

GCC 512/513 Readings in Cellular Biochemistry and Cell Biology

Journal club that covers topics related to GCC 502 and GCC 503. FA [1]

GCC 514 Readings in Functional Tissue Biology

Journal club that covers topics related to GCC 504. SP [1]

GCC 530 and 533 Lab Rotations

Students will gain hands-on experience in a laboratory to provide the student with an understanding of laboratory interests and learn research protocols. The course is repeatable for exposure in different labs. FA [1], SP [1]

FA = Fall and SP = Spring

Where to find more information:

The copy of this manual specifies required courses and the expectations of the program. Keep this manual for future reference. The Integrated Biomedical Science MS program abides by the policies and procedures of Rush University and the Graduate College of Rush University. Policies not detailed here are found in both the Rush University and Graduate College sections of the University Catalog. The University Catalog can be accessed online at the Registrar's site; highly relevant sections are reprinted in Appendix 1 of this document.

Disclaimer:

While we strive for consistency, there may be conflicting information between this document, the University Catalog and the website. Nothing in this manual can override Graduate College or University policies. If you notice discrepancies or have any questions concerning these issues please alert the Program Director. The

policies/curriculum in the manual you receive at matriculation (this document) govern your studies. If future changes in policy or curriculum apply to you or your course of study, you will be notified of the changes by email or in writing.

Appendix 1: Excerpts from the Rush University Catalog

The University Catalog specifies the rules that govern the Graduate College and its Programs. Each Program may have additional policies and procedures providing that they do not conflict with those specified in the Catalog.

As a service to students and faculty, the Academic Policies, Academic Standing and Appeal sections of the Catalog have been reprinted in this Appendix. Please Note: Since the University Catalog for the current year is not available until the start of classes, the excerpts given here are from last years catalog. Please check the registrars website for the current catalog.

You are governed by the policies in effect at the time you entered Rush Univ. A copy of the catalog for each academic year is kept on line in a PDF file. A change in the policies can be made provided you are notified in writing or by email.

The Graduate College: Academic Policies:

The Graduate College adopts college-wide policies and procedures and reviews division regulations. Students follow the college and division policies in effect at the time of initial matriculation in The Graduate College. However, The Graduate College reserves the right to make substantive changes in its programs after the student's matriculation. Students will be informed in writing by the division director of any changes made during their tenure in the program. Students re-entering the college after an absence will be guided by policies and procedures in effect at the time of re-entry.

Examination Policy:

The examination policy is the responsibility of the individual course director who will inform students of examination requirements for that particular course. A period at the end of the quarter is provided for examinations. This period may be used as the course director chooses.

Pass/No Pass Grades:

Each division identifies all courses required of its students. Required courses are usually taken for grade and not under the pass/no pass (P/N) option. Research hours are generally graded using the P/N option. However, a division may opt to provide a letter grade for research classes (under 600) for master's students. The grading policy for post-candidacy research hours (over 600) for doctoral students is P/N.

Good Academic Standing

To remain in good academic standing, students must maintain a cumulative grade point average of 3.0 and meet the requirements of his/her division. A student must be in good academic standing to be admitted to candidacy and to graduate. Students failing to maintain a GPA of 3.0 will be notified by the Dean in writing that their student status has been changed to "on probation." Students who fail to remediate their deficiencies within one academic year or are placed on probationary status a third time, are subject to dismissal by The Graduate College.

Academic Difficulty

Each division/program has policies and procedures regarding students who fail to maintain good academic standing. While the responsibilities of informing students of their academic problems and of establishing conditions for regaining good academic standing reside within the divisions/programs, the Graduate College Council monitors

the progress and promotion of all students and gives final approval to award students' degrees.

Dismissal

Each division establishes grounds for dismissal beyond the minimal criteria established by The Graduate College. Should a division recommend the dismissal of a student, the director will forward such recommendation to The Graduate College Council for final action. Letters of dismissal come from the Dean. Appeal of a dismissal action begins within the appropriate division.

Full-time Enrollment

Full-time enrollment is required of all Graduate College students with the exception of the Clinical Research students and students within the divisions of Nursing and Health Sciences. Full-time students must register for at least 12 semester hours for the Fall and Spring Semesters and for 9 credit hours for the Summer term of the first year; 10 semester hours thereafter per term are required for full-time enrollment. Students must obtain written permission from the division director for exceptions to this policy. Students receiving a master's degree from The Graduate College as a full-time student must be enrolled for a minimum of two semesters and the summer term; part-time students earning a master's degree must be enrolled a minimum of two semesters per academic year. The minimum requirement for graduation from the college is 53 hours. At the time of graduation, the student must be enrolled in the College. The maximum time allowed for enrollment for a full-time master's degree is four years starting the first semester of official enrollment and for the MS degree is five years.

Residency:

Doctor of Philosophy (MS) candidates are expected to meet all requirements for graduation within five enrolled academic years in the Graduate College (excluding leaves of absence (see below)). This period begins the quarter in which the student formally matriculates. A student exceeding that time limitation must submit to the Graduate Council, in writing, a request to extend their candidacy beyond that time period. This request must identify the reasons for the extension and provide a written plan with reasonable deadlines for completion. This document will be co-signed by the student's advisor and division director. The council will then vote whether to accept the extension or not (passed by simple majority). The student's advisor will then provide an update on the student's progress after six months. One year after the extension is granted, the student is expected to complete all requirements. A second request may be made by the student's advisor and division chair, but only will be accepted through a two-thirds majority of the voting members present at a formal hearing of the Graduate College Council. Within one year of that second request, the student must complete all requirements for the MS degree or face dismissal. Alternatively, the student may be awarded a MS degree upon the recommendation of the student's graduate division.

Readmission:

Any student who has withdrawn from the University or any dismissed student may apply for readmission by submitting an application for this purpose to the Graduate College admission office. An interview may be required. A re-entering student must meet the conditions for re-enrollment stated in his/her dismissal or re-entry acceptance letter and all policies, requirements and course sequence in effect at the time of re-entry. The student will pay tuition and fees at the rates in effect at the time of re-enrollment. Application deadlines may vary by division.

Academic Progression: The graduate division in concert with the rules of the College and Rush University develop specific regulations governing the process that results in final awarding of the degree. While such regulations differ slightly from one division to another, The Graduate College Council reviews each division's program and regulations for approval. In all cases, graduate divisions are required to be explicit and clear about regulations that will affect the candidate. This must be stringently observed in divisional regulations concerning selection of principal advisors, advisory committees, and a plan of study. Similarly, divisions will be explicit and clear concerning academic policies and procedures surrounding qualifying, preliminary, and final examinations when they are required. The divisions are also responsible for providing the candidate with the support needed to plan and conduct the dissertation research. At the same time, a major responsibility of the student is to become familiar with the regulations and expectations of his/her chosen division. These regulations and expectations are included in this Catalog within the sections devoted to each divisional program and are also included within program publications. The student is responsible for understanding the regulations, and monitoring changes that may occur during their tenure in the program.

Student Academic Appeals Policy:

Any student of The Graduate College may appeal a final course grade, failure on a preliminary or comprehensive examination, or failure of the thesis/dissertation that results in his/her academic probation or dismissal from the University. A student may also appeal an unreasonable delay in his/her graduation from the University. No other issues may be appealed through this process. The process for filing an appeal is maintained by each division. The student may request a copy of the Division Appeal Process from the Division Director. This process will be completed within one quarter. If a resolution cannot be achieved at the Division level, the following procedure must be followed. At any step in the process, the student may withdraw the appeal by written notification to the program director with a copy to the Dean. In the event of a dismissal decision, a student may continue to enroll until the appeal process is completed or the student withdraws the appeal.

Step 1: If the student wishes to appeal the decision beyond the Division, within two weeks of receiving a decision from the Division, the student will submit a written statement to the Dean requesting consideration of his/her case by an advisory panel. The student must provide the following in the written statement.

- Course number and grade being appealed or other cause for probation or dismissal, i.e., failure of preliminary/comprehensive examination or thesis/dissertation
- Action being requested
- Justification for the request
- An outline of the efforts and actions already taken to obtain consideration of the request.

The student will send copies of this communication to the Division Director and the Department Chairperson. In addition, if a course grade is being appealed, the student will send a copy to the course director. If the evaluation of a thesis or dissertation is being appealed, the student will send a copy to the chairperson of the thesis/dissertation committee. The Advisory Panel will be The Graduate College Council. Its Chairperson will be appointed by the Dean from among the members. The Division Director of the student's division and any other member who is evaluating the student's academic status will not vote.

Step 2: Within two weeks after notification to the Dean, the Chairperson of the Advisory Panel will arrange a meeting of the advisory panel. It will submit a written recommendation to the Dean.

Step 3: Within two weeks following receipt of the advisory panel's recommendation and upon discussion with the student and with others as appropriate, the Dean shall reach a final decision and notify each party of the decision. The decision reached by the Dean is final.

The issues discussed and the outcomes of all meetings in this appeal process are documented. This record-keeping is the responsibility of a faculty member who is to be designated at each meeting. Copies of the documentation should be distributed to the individuals present at a meeting, to the Division Director, the Dean and to the student's academic file.

Rush University Academic Policies

The Academic Resources and Policies section of this catalog contains additional Rush University academic policies.

Rush University Statement on Academic Honesty and Student Conduct

Rush University students and faculty belong to an academic community with high scholarly standards. As essential as academic honesty is to the relationship of trust fundamental to the educational process, academic dishonesty violates one of the most basic ethical principles of an academic community, and will result in sanctions imposed under the University's disciplinary system.

Examples of conduct that would subject a student to disciplinary action include but are not limited to:

- All forms of academic dishonesty including but not limited to: cheating; plagiarism; collusion; gaining or seeking unfair advantage in relation to any work submitted; helping others to gain an unfair advantage; removing examination materials from a secure examination area; the unauthorized downloading or copying of examinations that are given on-line; fabricating assigned academic work, including clinical assessments, and presenting them as authentic; facilitating academic dishonesty; unauthorized examination behavior.
- Obstruction or disruption of teaching, research, administration, clinical practice and community outreach or other University/Medical Center activities
- Falsification of student records, transcripts or financial aid forms or applications
- Theft of or damage to University/Medical Center property or the property of a member of the University/Medical Center community
- Threatened or physical abuse of any person or action that threatens or endangers the safety of others
- Misrepresentation, falsification, alteration, or misuse of the University/Medical Center documents, records or identification, or research data
- Unauthorized use or entry of University/Medical Center facilities
- Conviction of a crime deemed serious enough to render the student unfit to pursue his or her profession
- Conduct that is inconsistent with the ethical code of the profession the student is preparing to enter
- Unlawful use or possession of controlled substances on the Medical Center campus

- Unauthorized possession or concealment of firearms or other weapons on medical center premises at any time
- Attempting to gain access to another's e-mail or computer account, username or password
- Knowingly setting off false fire, safety or security alarms
- An accusation of student and/or faculty academic dishonesty or misconduct made in bad faith

Diversity, Equal Opportunity, Affirmative Action

For over three decades, the Rush approach to equal opportunity and diversity has not wavered. It is that equal opportunity and diversity in employment, education, and the delivery of health care are essential and must be furthered. This is a continuation of a policy that emanated from the Hospital Charters of 1865 and 1883 and the documents governing the establishment of Rush University in 1972.

In certain instances, the implementation of these policies requires the use of affirmative action initiatives. At Rush these are focused on strong recruitment and programming efforts, not on the use of quotas - and these recruitment and programming efforts will be continued, consistent with federal, state, and municipal guidelines.

Rush University is committed to attracting students who will enable the student body to achieve the educational benefits of diversity, and to providing services to all students, faculty, and other employees on a nondiscriminatory, equitable basis.

Discrimination or harassment against any member of the Rush University Medical Center community because of age, ancestry, color, disability as defined by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, gender, gender identity and/or expression, marital or parental status, national origin, pregnancy, race, religion, sexual orientation, veteran's status, or any other category protected by federal or state law is prohibited and will not be tolerated, nor will any person for those reasons be excluded from the participation in or denied the benefits of any program or activity within Rush University.

Shanon Shumpert, Director, Employee Relations and Equal Employment Opportunity Officer, has been designated to over- see the implementation of this policy for Rush University. Ms. Shumpert can be contacted by telephone at (312) 942-5239 or via email at Shanon_Shumpert@rush.edu

Additional resources may be found in Human Resources along with the following university individuals/offices:

Susan Chubinskaya, MS

Associate Provost, Academic Affairs Armour Academic Center 441A (312) 942-6306 Susanna_Chubinskaya@rush.edu

Paula J. Brown, MBA

Manager, Equal Opportunity Programs Rush University Medical Center 128 Professional Office Building (312) 942-7094 Paula_J_Brown@rush.edu

Harassment: Policies and Procedures

The Policies and Procedures on Sexual and Other Harassment for the University and nonacademic sectors of the institution are intended to increase the awareness of Rush's long-standing commitment to preventing harassment and to focus on the internal resolution of any complaints. Under these policies and procedures, the more familiar category of sexual harassment as well as harassment related to age, ancestry, color,

disability as defined by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, gender, gender identity and/ or expression, marital or parental status, national origin, pregnancy, race, religion, sexual orientation, veteran's status, or any other category protected by federal or state law is prohibited. The provisions include protections for and prohibit retaliation against an individual making a complaint or supplying information about a complaint. They also incorporate protections for a person who considers himself or herself accused in bad faith. While all administrators and supervisors have responsibility under this document, certain people have been specifically designated to deal with concerns and complaints that might come forward.

Inquiries or complaints of harassment from students, residents, or faculty members will be handled through the Office for Equal Opportunity by contacting Paula J. Brown, Manager, Equal Opportunity Programs, at (312) 942-7094, by mail (128 Professional Office Building), or via email at Paula_J_Brown@ rush.edu. Copies of the Policies and Procedures are available from the Office for Equal Opportunity and are on the Rush Intranet.

Disability Rights

Rush University provides reasonable accommodations to all students on a nondiscriminatory basis consistent with legal requirements as outlined in the Americans with Disabilities Act (ADA) of 1990 and the Rehabilitation Act of 1973 and applicable implementing regulations of these statutes. A reason- able accommodation is a modification or adjustment to an instructional activity, facility, program or service that enables a qualified student with a disability to have an equal opportunity to participate in all Rush University student activities.

To be eligible for accommodations, a student must have a documented disability as defined by the ADA and Section 504 of the Rehabilitation Act of 1973. Both the ADA and Section 504 define disability as (a) a physical or mental impairment that substantially limits one or more major life activities of such individual; (b) a record of such impairment; or (c) being regarded as having such a condition. For information to request accommodation(s), please contact your college representative listed below. Please do not make requests for accommodation(s) to individual faculty members, lectures or course directors.

In keeping with its goal to promote diversity among its student population, Rush University is committed to attracting and educating students who will help to make the population of health care professionals representative of the national population, including students with disabilities. In addition, Rush University wishes to insure that access to its facilities, programs and services are available to students with disabilities. The University provides reasonable accommodations to all students on a nondiscriminatory basis consistent with legal requirements as outlined in the Americans with Disabilities Act of 1990, the American Disabilities Amendment Act of 2008, and the Rehabilitation Act of 1973.

Additional information can be found at:

http://www.rushu.rush.edu/catalog/aboutrush/disabilityrights.html

For disability-related assistance, questions, or concerns, contact:

Paula J. Brown, Manager

Equal Opportunity Programs Office for Equal Opportunity

Rush University Medical Center 1725 W. Harrison Street, Suite 128 Chicago, IL 60612

Tel. 312-942-7094, Fax. 312-942-4283, Email. Paula J Brown@rush.edu

Student Honor Code:



Rush University Honor Code

I pledge that my academic, research, and/or clinical work will be of the highest integrity.

I shall neither give nor receive unauthorized aid; I shall not represent the work of others as my own;

I shall not engage in scientific misconduct; and I shall treat all persons with the greatest respect
and dignity, just as the ethical codes of Rush University Medical Center and my future
profession demand.

I recognize that behaviors that impede learning or undermine academic, research, and clinical evaluation, including but not limited to falsification, fabrication, and plagiarism, are inconsistent with Rush University values and must be reported.

Implementation of the Honor Code

This Honor Code (hereafter referred to as the Code) sets the standards for expected professional behavior within the University and the Medical Center. Commitment to this Code is a shared responsibility of all faculty, staff, and students within the Rush University community to ensure the highest standards of behavior, whether in the classroom, the laboratory, or in the clinical setting, and to ensure that education obtained at Rush provides a sound foundation for each student's future success as an academic, scientific, or healthcare professional.

Code Enforcement

Any violations of this Code or suspicion of student or academic misconduct should be reported to the student's college for further review in accordance with the procedures specified by that college. Each college will be expected to set standards for addressing Honor Code violations and cases of misconduct in a fair and consistent manner that best fits their respective student population. Students refusing to sign must submit a letter to their dean's office explaining why, and adherence to the Code is required for matriculation, whether or not the document has been signed. The Code may also be enforced for off-campus actions when the student is representing themself as a member of the University.

Commitment

By signing below, I affirm my commitment to this Code and pledge to act with integrity and adhere to the Rush University values of Innovation, Collaboration, Accountability, Respect, and Excellence. I understand that this signed document becomes part of my permanent record, and I must uphold the letter and spirit of this Code throughout my Rush education.

Student Signature	Date
 Printed Name	 College

THE GRADUATE COLLEGE RUSH UNIVERSITY

The Honor Code Committee (hereafter referred to as the Committee) acts as a third party working to investigate potential infractions of the Graduate College Student Honor Code. The Committee is made up of three voting faculty members (an Assistant Professor, an Associate Professor and a Professor) and three voting graduate students reflecting the diversity of the College. These members are appointed annually by the Dean of the Graduate College. A Chairperson is elected annually at the beginning of the academic year from among the voting members of the Committee. The Associate Dean of the Graduate College is a non-voting member of the committee.

Disciplinary Procedure

Students or Faculty reporting a potential infraction of the Graduate Student Honor Code may do so by contacting any member of the Committee or bringing the matter to the attention of the Associate Dean of the Graduate College (the liaison to the Honor Code Committee). The individual reporting the infraction should complete the Misconduct Complaint form and submit it to the Associate Dean of the college in which the accused student is enrolled before any further action is taken. However, during the process following this report, the individual reporting the infraction retains the option to remain anonymous. The following actions will ensue:

- A written statement defining what infraction was committed (where, when and by whom) shall be presented to the Chairperson of the Committee within five working days of the incident.
- 2. Upon receiving the written statement, the Chairperson will meet with the individual who made the statement no later than one week after receiving the written statement. The Chairperson will inform the accused of the information upon which the allegation is based and give him/her an opportunity to respond. The individual who made the original written statement and brought it to the attention of the Committee may at all times remain anonymous.
- 3. The Chairperson of the Committee determines whether the accusation needs to be further investigated by the whole Committee.
- 4. If the Chairperson of the Committee concludes that the complaint is warranted, a hearing between the accused party, the accuser and the entire Committee should be scheduled within fifteen days but no later than 30 days after reception of the written report.
- 5. The accused party may be accompanied by an advisor of her/his choice who is not a party to the violation. The advisor may be any person of the accused party's choosing. The role of the person accompanying the student is that of an advisor, not a presenter of the case. The student must inform the Committee 24 hours before the hearing of his/her intention to bring an advisor. The advisor may not speak on the accused party's behalf during the hearing.
- 6. The accused student may not cancel a hearing within 24 hours of the hearing. The hearing will continue in the accused student's absence unless proof of extenuating circumstances is provided.
- 7. At the scheduled hearing/meeting of the Committee, the accuser will present the details of the incident to the voting members. He/she may choose not to face the accused. In that case, the accuser and accused parties will be heard separately, so that anonymity is preserved.

- 8. Following the presentation of the accusation, the accused party will be given the chance to challenge/refute the accusation by introducing orally, or in a written form, evidence in support of his/her defense.
- 9. After presentations from the accuser and the accused party, the Committee will be given the chance to question both parties in regards to the accusation. Should the accuser wish to remain anonymous, the Committee will not be allowed to question the accuser at the hearing and will make their decision based on the initial written report and the presentation made by the accused party.
- 10. The Honor Code Committee will meet in a private session following the hearing to render a decision. The votes of the members of the Committee on motions made and seconded by Committee members will remain anonymous. The result of the vote(s) will be submitted to the Associate Dean who will be responsible for informing the parties involved in the case, including the Division Director of the accused student.

Disciplinary Actions

- 1. The Honor Code Committee's first response should, when feasible, be educational/remedial.
- 2. Upon repeated offenses, the Honor Code Committee shall bring the incidences to the attention of the Dean of the Graduate College and the Graduate College Council. This may trigger the College Policy on Dismissal.
- The Honor Code Committee may also make recommendations for changes to the Course Director, Division, or the Graduate College. Such recommendations may include changes to the course or examination structure, clarification of policy regarding student conduct, and suggestions to better implement such a policy.