



RICE UNIVERSITY
Department of Bioengineering

Graduate Student Handbook

Academic Year: 2024-2025

Rice University
Department of Bioengineering
6100 Main Street
Houston, Texas 77005
713-348-5063

Available Online at <https://bioengineering.rice.edu/about/student-forms>

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Purpose of this Handbook

This handbook describes the policies and procedures for the Bioengineering graduate academic programs at Rice University. The Department of Bioengineering offers three graduate degrees, Doctor of Philosophy in Bioengineering, Masters of Science in Bioengineering^{1,2} and Masters in Bioengineering (MBE). The focus of this handbook is on the graduate degree requirements and associated policies and procedures. Topics covered include the basic responsibilities of graduate students, requirements for the PhD, MS, and MBE programs, and items related to selected facilities and services available.

In addition to the requirements in this handbook, students should be familiar with the academic procedures and requirements published in the Rice *General Announcements*.³ Students should also familiarize themselves with the university policies listed below:

- Policy 324-00 Research Misconduct
- Policy 326-98 Human Health and Safety in the Performance of Research
- Policy 333 Software Policies
- Policy 334 Copyright Policy

Elements of this handbook are subject to change and may be different from policies published in previous years. Minor changes to policy that do not materially affect students' progress towards their degree may be implemented immediately when it is determined to be in the best interest of the students or the graduate program, or if the changes are required by a legislative or regulatory body.

Students enrolled in graduate programs at Rice have the right to decide whether to follow the general and degree program requirements for graduation in effect when they first matriculated at Rice or those in effect when they graduate. Graduate program degree requirements may vary from year to year during the period between a student's matriculation and graduation. The graduate program may, at its discretion, make any of these variations available to a student for completion of the degree requirements but must allow a student to graduate under requirements articulated at the time of their matriculation. If a new academic credential is created during the student's time at Rice, the new program will be available to the student as if the program appeared in the General Announcements at the time of matriculation. Whichever the student chooses to follow, they must follow in full.

Disclaimer: This publication represents the most accurate information available at the time of its posting. The Department of Bioengineering reserves the right, in its discretion, to correct or otherwise change any information without notice. The information contained in this publication is not intended to, and does not, confer any contractual rights on any individual. Regarding course offerings, the department has attempted to anticipate which courses will be offered and by whom and when. However, course offerings may be affected by various factors, including changes in faculty, student demand, and; funding. Although efforts have been made to indicate these uncertainties, course offerings are subject to change without notice.

¹ The Bioengineering program does not directly admit students to pursue a Masters of Science Degree. Exceptions to this policy must have approval of the PhD Admissions Committee.

² PhD students under specific circumstances and with the approval of their faculty advisor and the dean of graduate studies, may earn a Master of Science (MS) degree as a terminal degree. The decision to allow a student to earn an MS degree is made on a case by case basis.

³ Portions of this Handbook are duplicated from the *General Announcements*. Nothing herein, in previous handbooks, or online is to be interpreted as contradictory to the regulations published in the *General Announcements*. If a contradiction is found, the General Announcements take precedence and is followed.

Department Contacts

Often questions regarding the graduate program can be found by contacting the academic program support staff. Students should consider their graduate program or home department to be their first point of contact on all graduate matters. Primary department contacts are:

Academic Program Administrator

Gayle Schroeder

ges2@rice.edu | 713-348-5063 | BRC 1030H

- First point of contact for PhD students
- University and department policies and procedures
- Payroll
- Milestones (deadlines, requirements, etc.)
- Thesis committee and thesis proposal questions
- Semi-annual progress reports
- TA responsibilities
- Candidacy requirements/review/submission
- Thesis announcements & defense
- Confidential issues
- Petitions

Academic Coordinator (MBE-Applied Bioengineering & PhD Programs)

Position Incumbent TBD – Contact Gayle Schroeder

713-348-3648 | BRC 1030C

- First point of contact for MBE-AB students
- Prerequisites
- Course transfers
- Forms submission (special registration forms, transfer credit forms, inter-institutional graduate student registration form, etc.)
- Colloquia attendance
- Routine inquiries

Academic Coordinator (MBE-Global Medical Innovation Program)

Lorena Moguel

clr9@rice.edu | 713-348-3253 | BRC 1030D

- Supports all areas of the MBE-GMI program
- First point of contact for MBE-GMI students

Health and Safety Resources

Rice Crisis Management – What to do in an Emergency

Phone: 713-348-6088

Email: <https://emergency.rice.edu/>

“What to Do”: <https://emergency.rice.edu/what-to-do>

The Rice Crisis Management Webpage (<https://emergency.rice.edu/what-to-do>) provides information on what to do when faced with different emergency scenarios, including armed aggressors, civil disturbances, cybersecurity, extreme weather, power outages, public health emergencies, suspicious activity, and terrorism/bomb threats. Students should become familiar with the information on this website.

Rice University Police Department

Phone: 713-348-6000 (Ext. 600 on campus)

Location: Entrance #8 (2000 block of University Boulevard at Stockton Street)

Hours: 24 hours a day

Rice University Police Department (RUPD) is a Commission on Accreditation for Law Enforcement Agencies (CALEA) accredited police department. This accreditation improves the delivery of public safety services, primarily by maintaining a body of standards developed by practitioners in the field that cover a wide range of up-to-date safety initiatives. This site provides a guide for emergency assistance, safety information, training classes, parking enforcement, and other services. It also provides access to the daily crime log, as well as online forms to report crimes and register valuables.

Rice Emergency Medical Services

Phone: 713-348-6000 (Ext. 6000 on campus)

Location: Entrance #8 (2000 block of University Boulevard at Stockton Street)

Hours: 24 hours a day

Rice University Emergency Medical Services (REMS) strives to provide the Rice community with quality emergency medical care. REMS seeks to accomplish this goal through rapid response to calls for emergency service, standby coverage at special events, education of the Rice community, and a commitment to compassionate patient care, quality improvement, and professionalism.

Rice Crisis Management Office

The mission of the Rice Crisis Management Office is to provide effective communication and assistance to the Rice community before, during and after a crisis. In the event of inclement weather or other emergency, the university follows set procedures for announcing university-wide operational changes by making a formal announcement via the Rice Crisis Management Office. The “Rice Alert” system is used to effectively communicate emergency information through multiple channels, including text messaging, emails, The Rice emergency website (emergency.rice.edu), the Everbridge app and the outdoor warning (siren) system. Students should sign up for Rice Alerts and ensure their contact information is current for each of these platforms. Information on how to access these resources can be found at <https://emergency.rice.edu/rice-alert>.

Student Health Services

Phone: 713-348-4966

Email: hlsv@rice.edu

Location: Morton L. Rich Student Health and Wellness Center

Hours: Monday – Friday, 9:00 a.m. to 5:00 p.m. Telehealth Appointments/Consultations are available 24/7.

Closed for lunch 12:00 – 12:30 daily.

Student Health is located on-campus and is dedicated to meeting undergraduate and graduate students' unique needs, emphasizing prevention. Student Health Services sees all students regardless of their insurance. Appointments are included in student fees. Additional labs, vaccines, etc., charges may be paid via cash or credit card. Students are seen in person at Student Health.

Mental Health Resources – Wellbeing & Counseling Center

Phone: 713-348-3311(24/7)

Location: Gibbs Wellness Center

Monday – Friday, 9:00 a.m. – 5:00 p.m. Telehealth appointments/consultations are available 24/7. Closed

for lunch 12:00 – 12:30 daily.

The Wellbeing and Counseling Center supports student development and success by providing a good first point of contact for students who want to talk to someone about solutions to their wellbeing and mental health concerns. The Wellbeing and Counseling Center envisions a Rice community in which all persons develop and thrive as individuals; and strives to create a community of care, respect and integrity for all.

The SAFE Office

Phone: Immediate Assistance: Call RUPD/REMS at 713-348-6000

Phone: Someone to talk to: 713-348-3311 (24/7)

Location: Morton L. Rich Health and Wellness Center

Rice University's SAFE Office (Interpersonal Misconduct Prevention and Support) offers care management and navigation to students who are reporting an incident of interpersonal violence perpetrated against them and to students who have been accused of perpetrating interpersonal violence. The SAFE Office also provides prevention education to the Rice community on sexual and domestic violence, sexual harassment, stalking and Title IX and Clery Act requirements. All services are provided at no cost to the student.

The SAFE Office helps with:

- Emotional Support
- Education on healthy relationships, consent, and interpersonal violence dynamics
- Safety planning
- Information on reporting options
- Accompaniments to appointments
- Assistance with supportive measures
- Referrals to on and off campus resources
- Navigation support for reporting and responding students in Title IX related Student Judicial Program (SJP) cases.

Student Support Specialist

Pia Byrd

Phone: 713-348-2617

Email: <https://bioengineering.rice.edu/about/student-forms>

Location: Sewall Hall 380.

Pia Byrd, Student Support Specialist in the Office of Graduate and Postdoctoral Studies handles graduate affairs and offers support in a safe and confidential environment for graduate students to discuss concerns or grievances outside formal channels.

Disability Resource Center (DRC)

Phone: 713-348-5841

Email: adrice@rice.edu

Location: Allen Center, Room 111

Website: [Diversity, Equity and Inclusion | Office of Provost | Rice University](#)

The Disability Resource Center (DRC) facilitates academic accommodations for students with documented disabilities. Accommodations may include but not limited to:

- Access to taped or digital textbooks
- Sign language interpreting
- Assistive listening devices
- Alternative format materials, Braille, large print
- Note taking
- Testing accommodations
- Adaptive equipment
- Facilitates housing accommodations
- Provides referrals and information on diagnosis of learning disabilities and other potentially disabling conditions
- Consults with Study Abroad, Career Services Center and other campus resources for students with disabilities
- Assists with special parking needs for students with disabilities
- Provides support for students with temporary mobility restrictions
- Advises on the Americans with Disabilities Act/Section 504 of the Rehabilitation Act of 1973 about accommodations, accessibility, service animals, etc.
- Trains students with disabilities on use of assistive technology

Women's Resource Center

Phone: 713-348-2813

Location: 1st Floor, Ley Student Center

The Rice Women's Resource Center is not only a space on the Rice University campus, but also a community that fosters personal relationships and conversations. Their vision is to increase awareness of and sensitivity to gender issues in order to build a more supportive, dynamic atmosphere on campus. Through a series of educational and social events and programs, the center hopes to actively engage with diverse identities and facilitate critical discussion of gender issues. The center also serves as an innovative platform and safe space for expression and development of philosophies and ideologies.

Diversity, Equity & Inclusion

713.348.4026

provost@rice.edu

Allen Center, Suite 330

Website: [Resources | Diversity, Equity and Inclusion | Office of Provost | Rice University](#)

The Rice University's Office of Diversity, Equity and Inclusion Office seeks to support and guide the university in fulfilling its mission of cultivating a diverse community of learning and discovery by facilitating a campus environment that promotes diversity, inclusion and academic achievement through active engagement with all areas of campus life.

General Guidelines (for all Graduate Programs)

The general policies discussed in this section are applicable to all Bioengineering graduate students.

Standards of Conduct

Graduate students must adhere to the Honor System. Information about the Rice University Graduate Honor Council can be found at <https://gradhonor.rice.edu>. The Code of Student Conduct can be found at <https://sjp.rice.edu>.

Student Responsibilities

All graduate students are subject to the academic regulations of the university. Students are responsible for making certain they meet all departmental and university requirements and academic deadlines. For additional information on graduate programs and requirements, graduate students should refer to the [Graduate Academic Policies and Procedures](#) section of the General Announcements.

Non-Curricular Training

All first-year graduate students must complete mandatory non-curricular training including Sexual Harassment Prevention, Responsible Conduct of Research and Lab Safety Training. PhD students are required to also complete TA training. All non-curricular training must be completed by October 1st.

- [Sexual Harassment Prevention Training](#) and [Responsible Conduct of Research Training](#) may be completed online at <https://graduate.rice.edu/admissions/after-admission/training>.
- [Lab Safety Training](#) information and course registration can be found at <https://safety.rice.edu/training/schedule-and-registration>.
- [TA Training](#) is hosted online in an asynchronous, self-paced format. Students may enroll at any time at <https://cte.rice.edu/ta-training>.

In addition to the trainings listed above, the Department of Bioengineering requires teaching assistants to attend a department-specific training session before each semester in which they are a TA. Dates of these training sessions will be announced prior to each semester. The School of Engineering may also require additional TA training on a routine basis. The School of Engineering will announce dates for any TA training carried out by the school.

Residency & Enrollment

The minimum enrollment requirements for all [non-thesis master's programs \(MBE\)](#) in engineering is one fall or spring semester in full-time or part-time study. Full time study is defined as nine (9) or more credit hours in a semester. MBE students are not required to register for classes in the summer semester.

[Doctoral students](#) must complete at least four fall and/or spring semesters in full-time study at Rice University. Thesis Masters students must complete one fall or spring semester of full-time graduate study.

To maintain an active student status, students must maintain continuous program involvement and enrollment during fall and spring semesters unless granted an official leave of absence. Doctoral students are expected to enroll in each fall, spring, and summer semester⁴ unless granted an official leave of absence. Failure to enroll without an official leave of absence in place will result in a *de facto* dismissal and the student will be required to apply for readmission.

⁴ Students participating in summer internships are not required to register for courses during the summer, but will not receive a stipend during their internship.

International Students should consult with the Office of International Students and Scholars (OISS) about the possible impact dropping below full-time status may have on their visa.

Course Registration

All students are responsible for registering for courses and reviewing and confirming course selections are correct. Course registration is completed in ESTHER. Instructions for registering in ESTHER can be found at <https://registrar.rice.edu/students/reg/instructions>.

Students who do not register by the deadlines listed in the Academic Calendar will incur late fees.

Additional information on registration, including registration restriction overrides (special registration), inter-institutional courses, dropping or adding courses, etc., including all applicable forms can be found at [Registration | Office of the Registrar | Rice University](#).

Graduate students must secure written permission from the dean of graduate and postdoctoral studies or his designee to register for more than 18 credit hours in a semester, including courses taken elsewhere. Students may not double/book or overlap courses.

Drop/Add Courses

During the first two weeks of classes, students may change their registration, add or drop courses without penalty. After the second week, the following conditions apply:

Adding Courses

- May add courses during the first two weeks without penalty
- May not add courses after the second week of classes, except in extenuating circumstances with the support of the student's advisor and the course instructor and approval of the Office of Graduate and Postdoctoral Studies.
- A penalty fee per course will be assessed.

Dropping Courses

- May drop courses through the seventh week without penalty.
- May not drop courses after the end of the seventh week of classes, except in extenuating circumstances. The support of the student's advisor and course instructor and approval by the director of graduate studies (PhD) or the program director (MBE) is required, Final approval of the Office of Graduate and Postdoctoral Studies is required.
- Students must have a compelling reason for dropping a course. Per the *General Announcements*, "The university does not condone grade laundering, and late drops are rarely approved." Students may not drop a course based on the expectation of a poor grade. Since late drops are rarely approved, students submitting a petition to drop a course should continue to attend class until a decision is rendered.
- Students who receive approval to drop a course after the designated drop deadline will be assessed a fee and receive a grade of "W" for that course.
- Graduate students paying tuition who drop a class after the second week should keep in mind that there is no refund of tuition, assuming the student continues to be enrolled in at least one other class. For additional information and relevant deadlines, please see the [Academic Calendar](#). Penalty fees can be found in the [Tuition, Fees, and Expenses](#) section of the General Announcements.

All requests to add or drop a course should be submitted by completing a "Registration Restriction Overrides (aka Special Registration)" form ([Forms | Office of the Registrar | Rice University](#)). Students requesting to drop a course must attach a separate written explanation of why they wish to drop the course. The special

request form and attached documents should be submitted to the academic program administrator who will assist in submitting the request.

Transfer to Another Program or Department

Graduate students at Rice are admitted to a specific graduate program. Admissions criteria are program specific; therefore, students who wish to transfer or add a second-degree program must follow specific guidelines. These guidelines can be found under the “Transfer of Program” section of the *General Announcements* found at [Regulations and Procedures for All Graduate Students < Rice University](#).

Student Rights and Responsibilities

Students can find information on Student Rights and Responsibilities, including the petition and appeal process, in the *General Announcements* (<https://ga.rice.edu/graduate-students/rights-responsibilities/>). This section covers the following:

1. Code of Conduct
2. Dispute Resolution (Including Petitions and Appeals)
3. Honor System
4. Student Responsibilities

PhD Program Guidelines

Program Requirements

The university minimum requirement for a doctoral degree is 90 semester hours beyond the bachelor's degree. The student is responsible for completing the various phases of the graduate program within the prescribed time limitations. PhD students are required to complete their program, including thesis defense, within ten (10) years of initial enrollment in the degree program. Students have a limit of six additional months from the date of the defense to submit their thesis to the Office of Graduate and Postdoctoral Studies. These time boundaries include any period in which the student is not enrolled or enrolled part-time, for whatever reason. Failure to meet any university time to degree deadlines may result in the student not being able to continue their degree program.

Students in the Department of Bioengineering are expected to complete their degree within five years (ten semesters, not including summer semesters). However, some students with specific circumstances may extend the amount of time necessary to complete their degree. The student and their advisor will consider all factors and the student's progress to create a timeline for students to complete their degree.

Bioengineering Curricula Requirements

In addition to University requirements for a PhD degree, Bioengineering PhD students must complete 90 graduate level credits. These credits must be earned by completing the following:

Core (Foundational) and Supporting (Elective) Courses:

A minimum of 24 credit hours from core and supporting (elective) coursework with high standing (500 level or above), including

- **BIOE 690 (Professional Development for Bioengineering).**
BIOE 690 is intended to help prepare the student for their thesis proposal exam. The course should be taken in the student's third semester. First year students may only take BIOE 690 with the explicit permission of the course instructor.
- **Nine (9) credit hours of core course** (3 credit hours from each of the three core focus areas)
- **12 Supporting (Elective) Courses**
Elective courses include courses relevant to the student's research work or necessary for building an overall competence in the field of bioengineering. Students may take supporting (elective) courses in the following areas: biomaterials, biomedical imaging, instrumentation, mechanobiology and biophysics, microfabrication, microfluidics and design, optics and diagnostics, quantitative, computational and theoretical bioengineering, synthetic biology and genome engineering and tissue engineering.

Additional Required Courses

- **BIOE 504 (Graduate Rotation)**
Rotations are administered through the course "BIOE 504: Graduate Lab Rotations" and is a required course for all first-year students during their first fall semester.⁵ Assignments consist of submitting required documents and forms. It is the student responsibility to submit all documents by the published deadlines.
- **BIOE 698/699 (Bioengineering Colloquia)**
Students must complete six credit hours of BIOE 698/699. Colloquia consists of a series of seminars throughout the semester. Each semester of colloquia is one credit hour. Students should ideally complete colloquia requirements during their first six semesters of study (excluding summer semesters) by registering for BIOE 698 (fall) and BIOE 699 (spring). However, BIOE 698 or BIOE 699 may be delayed for a semester if other courses or teaching responsibilities conflict with the colloquia.

⁵ Students allowed to waive rotations are not required to register for BIOE 504.

- **BIOE 500**

Once accepted into a lab, students should register for 1-12 credit hours of Graduate Research (BIOE 500) each semester, including the summer semester, the student carries out research. The student should discuss their anticipated work load with their advisor to determine the number of research credit hours they should register for each semester. In general, research credit hours are based on a 3:1 ratio; the student should register for one credit hour of research for every three hours spent carrying out direct research activities.

Students must also,

- Serve as a teaching assistant for up to two undergraduate or graduate courses.
- Submit and successfully defend a thesis proposal by the deadline.
- Submit a thesis that provides evidence of their ability to carry out original research in a specialized area of bioengineering.
- Defend the thesis in a public oral examination.
- minimum GPA of 3.20.

During their first semester in residence, Bioengineering students must take a minimum of twelve semester credit hours, including nine semester hours of core and/or supporting (elective) courses. Students should register for a minimum of nine credit hours in all subsequent semesters, including summer semesters. Research credit (BIOE 500) counts toward this minimum.

PhD Students are expected to complete all core and supporting (elective) coursework within their first three semesters to allow students to commence thesis research on a full-time basis by the end of their third semester. If a student does not meet this goal, they should create a plan for completing formal coursework and share this plan with their advisor.

Summary of PhD Degree Requirements (Required Credit: 90 hours)

Course No.	Title	Credit Hours (Per Course)	Total Credit Required	Comments
Required Foundation Courses (24 credit hours)				
BIOE 690	Professional Development for Bioengineers	3	3	Should be taken in second year of study prior to completion of thesis proposal
Focus Areas	Foundation courses cover material considered to be fundamental to bioengineering. Required foundation courses include,			
Focus area 1	Focus Area 1: Molecular, Cellular, Tissue and Biomaterials Engineering BIOE 505 MACROMOLECULAR ASSEMBLIES BIOE 508 SYNTHETIC BIOLOGY BIOE 516 MECHANICS/TRANSPORT/SIGNALING BIOE 519 BIOMATERIALS SYNTHESIS BIOE 535 CELL-BASED THERAPEUTICS BIOE 537 GENETIC AND EPIGENETIC CONTROL BIOE 543 DNA BIOTECHNOLOGY BIOE 580 PROTEIN ENGINEERING BIOE 522 GENE THERAPY BIOE 524 EXTRACELLULAR MATRIX BIOE 533 FUND. OF SYSTEMS PHYSIOLOGY BIOE 536 IMMUNOENGINEERING BIOE 620 TISSUE ENGINEERING	3	3	

Focus area 2	Focus Area 2: Instrumentation, Molecular Analysis and Experimental Techniques BIOE 509 POINT-OF-CARE DIAGNOSTICS BIOE 512 BIOPHOTONICS INSTRUMENTATION BIOE 517 INSTRUMENT/MOLECULAR ANALYSIS BIOE 555 PROTOTYPING & FABRICATION BIOE 587 OPTIC IMAGING/NANOBIOPHOTONICS BIOE 591 FUND MEDICAL IMAGING I	3	3	
Focus area 3	Focus Area 3: Modeling, Data analysis and Theoretical Approaches BIOE 514 INTRODUCTION TO BIOSTATISTICS BIOE 518 INTRO TO COMPUTATION BIOLOGY BIOE 523 BIOENG SYSTEMS & CONTROLS BIOE 539 APPLIED STAT FOR BIOE BIOTECH BIOE 552 INTRO SYSTEMS BIOLOGY MODELING BIOE 564 BIOINFORMATICS: NETWORKS BIOE 548 NEURAL SIGNAL PROCESSING	3	3	
		Total	12	
Elective Courses				
Varies	It is recommended the majority of the remaining 12 credit hours be BIOE designated courses, however, courses from other disciplines may be considered if they are relevant to the student's research. Electives may include courses in focus areas not taken to meet core (foundational) course requirements.)	3	12	
		Total Core, Foundational, and Elective Courses	24	
Additional Course Requirements				
BIOE 504	Graduate Lab Rotation	3	3	Must be taken by all students during their first semester*
UNIV 594	Training in Responsible Conduct of Research	1	1	Required for students carrying out research
BIOE 698 and BIOE 699	Bioengineering Colloquia (Six semesters)	1	6	Students are required to attend colloquia for six semesters.
BIOE 500	Graduate Research (1-12 credits per semester)		56+	Remaining hours required to meet the 90-credit hour requirement for the PhD should be taken as research hours
		Total Credit Hours	90	
*Course may be waived if student is an MD/PhD student who has chosen an advisor or is a student directly admitted to a specific lab.				

Transfer of External Credit, Course Waivers, and Course Substitutions

Under certain circumstances, transfer credit, course waivers, or course substitutions may be approved. Petitions to transfer, waive or substitute courses may be submitted at any time prior to applying for candidacy. However, students are encouraged to submit such petitions at the beginning of their graduate program in order to better plan their coursework and schedule. PhD students may transfer or waive up to a total of twelve (12) credit hours.

All transfer, waived, or substituted courses are decided on a case-by-case basis. Students should not assume that approval will be granted for any request based on previous decisions. Specific policies and procedures for requesting transfer credit, course waivers, or substitutions can be found in Addendum 2.

Transfer of External Credit

Under certain circumstances, PhD students may transfer graduate level courses from their prior undergraduate institution if the courses were not counted toward any other degree (undergraduate or graduate) and if there is a comparable course identified at Rice University. Transferred courses may not be substantially the same as another course taken at Rice for credit.

Course Waivers

A course waiver is an exemption from a required course because the student has demonstrated that equal or higher-level competencies were attained through a previously completed course outside of Rice University. Students who come into the PhD program with a masters or other post-baccalaureate degree, or who earned graduate level credit not counted toward any other degree may request to waive a course requirement. Waived courses may not be substantially the same as another course taken for credit at Rice. Unlike transfers or substitutions, approved waivers do not count towards total credit hours. The student is required to meet the minimum credit hours as stated in the degree requirement guidelines. Graduate Research (BIOE 500) may be used to make up hours for waived courses.

Course Substitutions

A course substitution is a process by which an alternate course may replace a required course within the required foundation requirements in a program of study. The substituted course must be a bioengineering course or another discipline related to bioengineering and determined to be in the best interest of the student (e.g. substituted course is more directly related to the student's research or is appropriate in their specific situation.)

Petition for Exception to a Degree Requirement

Students who wish to deviate from the policies or degree requirements in this handbook must submit a written request for an exemption. Such petitions should be viewed as unusual, rather than typical. Students may petition for a routine exception to an academic requirement, regulation, or judgment by submitting the "Bioengineering Graduate Student Petition" form to the academic program administrator.

Petitions are decided on a case-by-case basis by the Bioengineering Graduate Academic Affairs Committee or the Bioengineering Director of Graduate Studies as appropriate. Students should not assume that approval will be granted for any request based on previous decisions. Instructions for submitting a petition can be found in Addendum 1.

Grades

Rice uses a traditional grading system. Grades are reported using conventional (A+ through F) symbols. Instructors are required to report a grade for all students whose names are on the roster. Some courses are graded as satisfactory/unsatisfactory and count toward a student's degree if part of the curriculum for their specific program. More information about grading can be found at [Regulations and Procedures for All Graduate Students < Rice University](#).

Pass/Fail

Doctoral students may not take a course as Pass/Fail within their graduate degree requirements. If a student is advised to take a supplemental course that is not explicitly part of their degree requirements, the student may seek to audit the course rather than take the course for graded credit.

If a student takes a course pass/fail, the student should be aware that while a grade of P does not affect their grade point average, if they do not pass the course a grade of F is assigned. A grade of F is counted as a failure and is included in their GPA.

Major Milestones

To continue making acceptable progress and remain in good standing, students in the Bioengineering PhD program must meet certain milestones. These include,

- Complete advisor rotations and confirm a thesis advisor by November 30th of first semester
- Complete all coursework within the first three semesters of study
- Form thesis committee by end of third semester in residence
- Submit a written thesis proposal by end of August in fifth semester

- Defend an oral thesis proposal within four weeks of submission of written proposal
- Apply for candidacy by the beginning of the ninth semester in residence.
- Defend a thesis before the end of the sixteenth semester in residence. (Bioengineering students normally complete all degree requirements and defend their thesis by the end of their tenth semester. Students who take longer than this should prepare a written plan, including tasks to be completed and expected completion date and discuss this plan with their advisor.)

Specialization Tracks

Specialization tracks allow the student to focus on a specific area of interest⁶. Students may elect a specialization track during their graduate studies. To fulfill the requirements of a track, students must take three or more supporting courses in their area of interest. Students should consult with their advisor regarding appropriate courses to support their chosen track. Students can choose from four major tracks,

- Biomaterials, Biofabrication, and Mechanobiology
- Biomedical Imaging and Instrumentation
- Cellular, Molecular and genome Engineering, and Synthetic Biology
- Computational and Theoretical Bioengineering, and Biophysics

Research Responsibilities

Most graduate students are supported by research grants or fellowships. Students are responsible for meeting the requirements of their research position. Students should be on campus and meet with their advisors regularly.

Teaching Responsibilities

Students must undertake a limited amount of teaching or perform other services as part of their training. The Department of Bioengineering requires students to complete two teaching assistant assignments. Services provided by teaching assistants include, but are not limited to grading, monitoring, leading labs and/or discussion sessions, offering office hours, and performing clerical tasks associated with course instruction.

Each TA assignment will entail up to 10 hours work per week. Teaching assistants should expect to be available throughout the semester and through the end of final exams or after to support the courses for which they have responsibility. Any absence from campus for more than one week by a TA during the semester must be approved by the student's advisor and the instructor of the course for which the student is serving as a TA.

TAs are supervised by the course instructor. Students should arrange to meet with the instructor prior to the beginning of the teaching assignment to discuss expectations and deadlines. Instructors should provide TAs sufficient instructions at the beginning of the semester and TAs are expected to fulfill all reasonable requests made by an instructor. Conflicts that cannot be resolved between the instructor and TA should be discussed with the Bioengineering Director of Graduate Studies.

In addition to department expectations, TAs are expected to adhere to the ethical values, principles, and university code of conduct in their relationship with faculty members, students and other community members inside and outside the university. The university TA Handbook found at <http://honor.rice.edu/ta-handbook/> should be reviewed and used as a resource throughout the student's TA responsibilities.

Additional information regarding TA responsibilities can be found in Addendum 3.

⁶ Specialization tracks are not documented on the student's transcript or diploma.

Internship Opportunity

PhD students are encouraged to participate in an optional three to six-month internship experience. An internship provides an opportunity to gain real-world experience, increase the student’s professional network, learn new techniques and tools to apply to their research or gain substantial teaching experience. Students may choose to intern in industry, clinical labs, national government labs, international labs, or teaching institutions.

Internships are managed through collaborative interaction between the student, the advisor, the host, and the bioengineering program. Students must notify their advisor of potential internship opportunities prior to the establishment of arrangements to participate in an internship and all internships must be approved by the student’s advisor.

It may not always be possible for a student to participate in an internship due to various factors such as timing of their research trajectory, research funding issues, external fellowship constraints, etc. If a student is interested in an internship but it cannot be arranged for any reason, the student should reflect upon what they hope to gain through an internship and discuss their goals with their advisor. If the student’s goals are networking, learning new techniques, etc. the advisor may be able to arrange other opportunities for such activities, such as a research collaboration or involvement with the most relevant professional society.

Generally, students do not receive a stipend while they are participating in an internship. The student should contact the academic program administrator (ges2@rice.edu) at least four weeks prior to the beginning of the internship, providing the begin and end dates of their internship so the internship can be documented in their student record and appropriate adjustments can be made to their payroll.

PhD Program Timeline

The following table indicates the recommended timeline for PhD students.

Requirement	Semester									
	1	2	3	4	5	6	7	8	9	10
Coursework										
Rotations and Advisor Selection	11/30									
Colloquia										
Semi Annual Progress Reports										
Research										
Thesis Proposal		By the beginning of 5 th semester (August 31)								
Achieve Candidacy										
TA Assignments										
Achieve Candidacy										
Annual Progress Reviews										
Thesis Defense								By end of 10 th Semester		
Graduate								By end of 10 th Semester		

Guidelines Specific to MD/PhD Students

In addition to the curricula guidelines listed above, MD/PhD students must meet additional criteria including,

- Register for one of the research and reproducibility seminars offered by the Gulf Coast Consortia. Information on these courses can be found at <https://gulfcoastconsortia.org/home/research/research-and-reproducibility-resource-page/>.
- Formally meet with their thesis committee a minimum of once per year and submit documentation of this meeting to the administrator of the MSTP program at the Baylor College of Medicine.
- Provide a copy of their semi-annual progress reviews to the MSTP program administrator at Baylor College of Medicine.

MD/PhD students who do not fulfill these requirements may put their status with the MSTP program in jeopardy.

Exception to First-Semester Requirements (MD/PhD)

MD/PhD students may petition the Graduate Academic Affairs Committee (GAAC) to relax the requirement for registering for nine hours of advanced courses during their first semester. This waiver is not automatic. A petition should be submitted using the “Bioengineering Graduate Student Petition” form found at <https://bioengineering.rice.edu/about/student-forms>.

MD/PhD students may waive up to 12 credit hours based upon their coursework during medical school training. The following apply:

- Waived credit hours will reduce the required 24 credit hours of formal coursework required on an hour-by-hour basis. (i.e., reduce 24 credit hours to 12).
- MD/PhD students must still complete 90 credit hours, including research hours, to meet the minimum standard for graduating with a PhD including
 - nine (9) credit hours of BIOE classes at the 500-level or above chosen from the core course (focus areas) requirements
 - UNIV 594, BIOE 504 and BIOE 690

Lab Rotations

One of the most important matters for a graduate student is the choice of a faculty advisor. This choice can have a great effect on a student’s time in graduate school and long-term career path. To facilitate students matching to a thesis advisor and learning about various research projects and lab environments, including providing an opportunity for a student to explore research options other than their declared area of interest.

Students are required to participate in lab rotations during their first semester. Rotation policies and procedures will be explained in detail during an information session held during orientation. Unless granted a waiver⁷ first-year students must participate in lab rotations.

⁷ Waivers are granted for students in the MD/PhD program who have already selected a thesis advisor and students whose offer letter stipulates their advisor. Students requesting to waive rotations should complete and submit the “Rotation Waiver Petition” found at <https://bioengineering.rice.edu/about/student-forms> and submit it to the academic program administrator (ges2@rice.edu).

BIOE 504: Graduate Lab Rotations

Rotations are administered through the course “BIOE 504: Graduate Lab Rotations” and is a required course for all first-year students during their first fall semester.⁸ Assignments consist of submitting required documents and forms. It is the student responsibility to submit all documents by the published deadlines.

Time Line

Lab rotations will start at the beginning of the second week of the fall semester. Students should plan to complete three lab rotations. Each lab rotation will last four weeks and students are expected to spend approximately ten hours per week in the lab. A specific schedule for rotations, deadlines, and submission of the required documents will be provided at the beginning of the semester.

It is the student’s responsibility to contact faculty and arrange a meeting with potential advisors to clarify what is expected during a rotation. Students should begin speaking with faculty within the Department of Bioengineering regarding the potential of rotating within their labs immediately after orientation.

Expectations

It is the student’s responsibility to secure lab rotations with the expectation that they will primarily rotate with faculty within the Department of Bioengineering. Students are expected to actively engage in the lab during rotations. Rotation experiences vary between labs, however suggested activities for engagement include, but are not limited to, attending lab meetings, interacting with graduate students and post docs, discussing research with the potential advisor and lab members, and other reasonable activities at the discretion of the advisor. Although not recommended, students may rotate concurrently in a maximum of two labs. Students may not rotate in the same lab for more than one rotation.

Rotations with Non-BIOE or Non-Rice Advisors

A student may choose one rotation outside the department. The advisor for this rotation should be a faculty member whose primary appointment is in a department at Rice, a faculty member at another institution who has an adjunct faculty appointment in Bioengineering, or a faculty member at another institution who collaborates with a Bioengineering faculty member. If an advisor does not meet at least one of these criteria, the student must obtain advance permission from the Director of Graduate Studies to rotate in the lab.

Choosing an Advisor

Advisors must be tenure or tenure-track at Rice or another academic institution. Non-faculty members may not serve in the capacity of an advisor.

The advisor matching process is negotiated between the student and the faculty member based on the student’s input, current faculty needs, and available resources. If a student encounters any problems finding an advisor, the department will provide guidance, however, it is ultimately the student’s responsibility to secure an advisor prior to November 30th of the fall semester.

Official requests to join a lab can only be submitted at the end of each rotation period. If, at the end of one or two rotations, a student reaches an agreement regarding a position in a lab with an advisor the student may, with the approval of the Director of Graduate Studies, request to join that lab and waive the remaining rotations. If an agreement with a faculty advisor has not been reached after one or two rotations, the student should continue to the next rotation.

An official request for an advisor should be made by submitting the Advisor Request form found at <https://bioengineering.rice.edu/about/student-forms>. All students must have submitted the Advisor Request form by the deadline published in CANVAS for BIOE 504.

⁸ Students allowed to waive rotations are not required to register for BIOE 504.

If, by November 30th, a student has not secured an advisor, a three-week extension to participate in an additional rotation or otherwise continue the search for an advisor may be approved by the director of Graduate Studies. It is the student's responsibility to request this three-week extension by contacting the Director of Graduate Studies.

Thesis Committee

The thesis committee administers the oral examination for the student's thesis proposal defense and has final approval authority for the written thesis proposal. The same committee will continue as the student's thesis committee and administer the student's oral defense. The student, in consultation with their advisor, should carefully choose committee members.

Bioengineering PhD graduate students are required to form their thesis committee by the end of their third semester in residence. Students must confirm their committee member selection by completing a thesis committee member form. This form can be found at <https://bioengineering.rice.edu/about/student-forms>.

The thesis committee must be composed of at least three members. Two including the committee chair, must be a member of the student's department faculty. One member must have a primary appointment in another department within the university. Three members must be either a tenured or tenure-track member of the Rice faculty, or Rice research faculty holding the rank of assistant research professor, associate research professor, or research professor.

The committee chair must be a tenure or tenure-track faculty member of the student's major department or a research faculty member of the student's major department. Faculty whose primary appointment is at another institution may serve as the thesis director, however, in such cases, the student must have a committee chair who meets the requirement listed above.

The Department of Bioengineering requires that at least one committee member be a core faculty member whose primary appointment is in Bioengineering. Neither joint nor adjunct faculty are considered core faculty members of the department.

Students are responsible for keeping the members of their committee informed about the nature and progress of their research. Once a committee is formed, students should meet with their committee at least once per year.

Additional information regarding the make-up of the thesis committee can be found in the *General Announcements*.

Students must submit the "Thesis Committee Confirmation" form via Canvas (<https://canvas.rice.edu/courses/35731/assignments> | Thesis Committee Confirmation Form).

Thesis Proposal

The purpose of the thesis proposal is to determine whether a student is prepared to perform research at a level consistent with their degree objective. The proposal is composed of a written proposal and an oral presentation of the student's thesis research project. The goals of the thesis proposal are to establish the scope and goals of the PhD thesis work and develop a roadmap to achieve them, clearly define the bioengineering problem to be addressed, including its background and significance, describe the hypothesis and specific aims of the project, defend the approaches in developing the bioengineering solution, and gain valuable feedback and suggestions from the advisor and thesis committee members.

Proposal Timeline

Students are expected to complete the written portion of the thesis proposal by the end of August in their fifth semester (excluding summer). Failure to meet the August 31 deadline may result in the reduction or suspension of the student's financial support. The oral presentation can be held past this deadline but should be completed no more than four weeks after the submission of the written proposal.

The department will consider the student's proposal completed after a student forms their PhD thesis committee, submits the written proposal, with all required components to their advisor and committee members, and successfully defends their thesis proposal in an oral presentation.

Written Component

The professional development course, BIOE 690 is a vehicle to assist students with their thesis proposal development process. This course is offered annually in the fall and should be taken in the student's third semester.

The department requires the thesis proposal be prepared using a standardized NIH F31 format. This format can be found at [Page Limits | grants.nih.gov](#). The proposal should, at minimum, include the following F31 application sections:

- Project Summary/Abstract,
- Project Narrative,
- Specific Aims,
- Research Strategy, and
- Respective Contributions

The student should consult their advisor in how to adapt proposals within this framework based on the individual project and lab needs.

Students must submit a copy of their written proposal to their thesis committee and the department [via](#) canvas (<https://canvas.rice.edu/courses/35731/assignments> | Thesis Proposal Submission) prior to the date of their proposal defense.

Oral Component

The thesis proposal defense should be presented in person with all committee members physically present. In extenuating circumstances, the student's advisor may authorize a student to present their thesis proposal using a hybrid or virtual platform.

The committee will ask critical questions similar to that of an oral exam. Members will provide scores of one to five (five being the best) on background and significance, innovation, and approach resulting in an overall evaluation score. There are three possible outcomes for the thesis proposal defense, pass, pass with stipulations, or fail.

Pass: The student's presentation met or exceeded the committee's expectations. The student will continue their research based upon their thesis proposal and the recommendations of their committee. Students should meet with their committee at least annually or more often if necessary.

Pass with Stipulations: The student's presentation met most of the committee's expectations, but some revisions are required. The student's committee or thesis advisor, will, within one week of the date of the defense, provide the student a written explanation of deficiencies and allow the student a reasonable amount of time to correct any identified deficiencies in the written proposal. If the student fails to correct the identified deficiencies with the defined time frame, the student will be required to redefend the entire proposal by the end of their fifth semester or be subject to dismissal from the program.

Fail: The student's presentation failed to meet the committee's expectations. Students who fail their thesis proposal defense may, by unanimous vote of their committee, redefend within a reasonable time frame, but no later than the end of their fifth semester. Students are allowed to redefend only once. If a student fails to successfully defend their thesis proposal the second time, they are subject to dismissal from the program.

It is the student's responsibility to notify the department of their thesis proposal defense date. This is done by the student completing the student section of the "Thesis Proposal Defense" form to the academic program administrator (ges2@rice.edu). Once a student completes their proposal defense, they should notify the academic program advisor. The academic program advisor will then submit the Thesis Proposal Defense form to the student's thesis committee for approval.

Proposal Extension

Petitions for extensions of the thesis proposal deadline are only granted in extenuating circumstances. Petitions may be submitted after the student's fourth semester, between May 16 and June 15. Petitions submitted outside this window will not be considered. The petition should include the reasons behind their request for an extension, an outline of planned steps to complete the proposal, and an estimated date the proposal will be completed. The student will receive a decision regarding their petition for an extension within 14 days of the date the petition is submitted. The academic program administrator will assist in submitting the student's petition.

Presentation of Research

Students are expected to present their research in an official forum at least annually, beginning with their second year and thereafter. These presentations should be in the form of a research talk at a local, national, or international conference. Students may also have the opportunity to present their research during the BIOE GSA Breakfast Club or at the annual Graduate Student Symposium. Poster presentations do not fulfill the research presentation requirement. Other opportunities for students to present research may be approved on a case-by-case basis. If a student does not have an opportunity to present their research, the student should inform their advisor so that additional opportunities can be identified. Students must document presentations on their semi-annual progress report.

Application for Candidacy

Candidacy marks a midpoint in the course of graduate education. Achieving candidacy signals that a graduate student has completed required coursework, passed the thesis proposal defense, demonstrated the ability for clear oral and written communication, and shown the ability to carry on scholarly work in the subject to bioengineering. Candidacy petitions must be submitted by the beginning of the ninth semester (excluding summer).

Students who are unable to meet the time boundary must submit an extension of candidacy request to the Office of Graduate and Postdoctoral Studies or risk dismissal. A \$125 reinstatement fee will be imposed on students who have exceeded their time boundaries. Information on time boundaries can be found in the *General Announcements at [Academic Policies and Procedures < Rice University](#)*.

All petitions should be submitted through the Bioengineering academic program administrator (ges2@rice.edu). For more information on how to submit the candidacy petition, see Addendum 4.

Thesis Defense

A candidate must be enrolled in the semester in which the oral examination is held.⁹ Oral examinations for the doctoral degree must be registered with the Office of Graduate and Postdoctoral Studies and publicly publicized at least 14 days in advance by entering the information into the Graduate Students Thesis Defense Announcement form found at <https://events.rice.edu/rgs>. **Defenses that proceed without timely registration are unofficial and will not meet university degree requirements.**

A draft copy of the student's thesis must be provided to the department (ges2@rice.edu) and all members of the student's committee, not less than two calendar weeks prior to the date of the oral defense.

All oral defenses should take place on the Rice campus with the candidate and all thesis committee members in physical attendance throughout the entire defense. Currently, students may, with the approval of their advisor and committee, defend their thesis using a hybrid or virtual (Zoom) platform. In such cases, the Zoom link must be provided at the time the student announces their defense. Students will be notified if this policy is revised.

Candidates who successfully pass the oral examination in defense of their thesis must submit the thesis to the Office of Graduate and Postdoctoral Studies not later than six months from the date of the examination. Instructions on how to submit the thesis can be found at <https://graduate.rice.edu/academics/candidacy-defense-thesis-submission>.

Should a candidate fail their defense, the committee chair may schedule a second examination. Students who fail a second time will be dismissed from the university.

Financial Support

Assuming the availability of funding, students in good standing will receive at least the minimum stipend for Bioengineering PhD students. The stipend is paid in 26 equal installments over twelve months. Students are paid biweekly. The payroll schedule can be found at <https://controller.rice.edu/payroll-schedules>.

First-Semester Support

Unless otherwise supported, by a fellowship or scholarship, first-year students will be supported from the beginning date of the fall semester through November 30th as a department fellow. Financial support after November 30th is dependent upon having an advisor, satisfactory performance, reasonable progress toward degree requirements, and the availability of funds.

Post-First Semester Support

A student's advisor will become responsible for a student's financial support on December 1st of their first semester. Advisors are expected to pay 100% of the student's stipend and associated fees unless the student's stipend is supported by a fellowship, scholarship, training grant or other external source of funding. If the award pays less than the base Bioengineering PhD stipend, the advisor is expected to pay the difference between the stipend offered by the award and the minimum Bioengineering PhD stipend.

⁹ Students passing the oral examination on or before the end of the first week of classes of any semester do not have to register for that or any subsequent semester even though they may continue to make minor revisions to the final copy of their thesis.

Thesis Proposal Related Compensation

Upon successfully passing their thesis proposal, a student will receive an increase in pay of \$500 annually above the rate of their current stipend. This raise will become effective the next pay period after submission of the thesis proposal evaluation form.

Fellowships, Awards and Training Grants

Students are encouraged to seek external fellowships, awards, and training grants. The Office of Professional Development (<https://opd.rice.edu>) offers an extensive array of proposal development services to assist students in developing and writing proposals for federal agencies and other sources when seeking funding. Students are encouraged to take advantage of these services. Students are required to immediately notify their advisor and the department of any fellowships, scholarships, or awards they receive, including awards received prior to their matriculation.

Students receiving financial support through fellowships, scholarships, or training grants will receive the stipend stipulated in the award. If the award pays less than the base Bioengineering PhD stipend, the advisor will supplement the student's stipend by the amount necessary to meet the minimum stipend for Bioengineering PhD students. If the fellowship or award pays a stipend higher than the base Bioengineering stipend, the student receives the higher amount.

Bonus Pay

Students who receive financial support through fellowships, scholarships, or training grants, including competitive university-held training grants, are eligible to receive a \$4,000 annual bonus paid by the advisor as long as the student is funded by one of these sources. Bonuses are paid in equal payments over 12 months coinciding with the dates of the award.

Since the department does not have the authority to require advisors outside the Department of Bioengineering to support this bonus, students with non-Bioengineering or non-Rice advisors should discuss, at the time they join the lab or apply for a fellowship or training grant, the expectation of receiving a \$4,000 annual bonus and the advisor's willingness to pay this bonus should they be awarded a fellowship or grant. The Department cannot support this bonus in circumstances where the advisor is unable or unwilling to do so. The bonus plan is summarized in the table below.

Award Amount the Same as BIOE Basic Stipend	Award Amount Above BIOE Basic Stipend	Award Amount Below BIOE Basic Stipend
Student receives an annual bonus of \$4,000 paid in equal amounts over a 12-month period for the duration of the fellowship.	Student receives fellowship stipend amount, even if it is higher than basic stipend. Student receives an annual bonus of \$4,000 paid in equal amounts over a 12-month period for the duration of the fellowship.	Fellowship is supplemented to equal current basic stipend. If the award amount is larger than \$10,000 per year, student receives an annual bonus of \$4,000 paid in equal amounts over a 12-month period for the duration of the fellowship.

Termination of Fellowships, Scholarships, or Training Grants

When a student's fellowship, scholarship, or training grants ends or is revoked during the student's studies at Rice, assuming the student is achieving satisfactory performance, meeting milestones and making reasonable progress towards their degree, and funds are available, the student will receive financial support from their advisor at the stipend level provided by the Department of Bioengineering in effect at the time. The student will no longer receive the \$4,000 annual bonus.

Financial Support Limitations

The normal limit of financial support for graduate students in the Bioengineering PhD program is ten semesters (excluding summer semesters). Termination of financial support may be considered if a student is not matched to an advisor for any reason after the initial first-year rotation process is completed, is on probation for two consecutive semesters, is not making reasonable progress towards their degree, has been dismissed from the advisor's lab, or has not completed their degree requirements by the end of ten semesters (excluding summers). Students finding themselves in any of these situations should seek advice from their advisor and/or the Director of Graduate Studies.

If a student is making reasonable progress but anticipates taking longer than ten semesters to complete their PhD degree requirements, they must consult with their advisor. The advisor, in consultation with the student's thesis committee may consider factors including the student's progress to this point and exceptional circumstances that justify continued funding for a specified time. Financial support can be terminated if the advisor or the thesis committee determines a student's progress is inadequate to justify continued financial support beyond the tenth semester. If a student's funding is terminated at the end of the tenth semester, but the student is close to completing their thesis research and is realistically expected to defend their thesis within a satisfactory time frame, the advisor may elect to allow the student to continue their studies in an unpaid capacity. The ultimate decision to support a student past the tenth semester is at the discretion of the advisor.

Because the termination of financial support to a graduate student, while not equivalent to a dismissal, is a serious action that could deprive the student of their financial ability to continue graduate studies, the termination of financial support of a graduate student requires that the student be notified of the termination a minimum of 15 days prior to the cancellation of support. In general, termination of financial support should coincide with the end of the current semester. Additional information regarding termination of financial support can be found in the *General Announcements* at <https://ga.rice.edu/>.

Progress Review and Evaluation

Semi-Annual Progress Review

The semi-annual completion of the "Graduate Student Progress Review" is mandatory for all Bioengineering PhD graduate students. This review is intended to serve as an opportunity for the student and advisor to review the student's progress, establish a set of realistic goals, and to identify any areas of weakness which can then be addressed. It is a nonpunitive consultative and interactive process to assist both the student and the advisor in shaping an advantageous plan for the future.

Progress Report Timeline

Semi-annual progress reports are required for all students beginning their second semester in residence. Progress reviews are based on the Gregorian calendar year and cover the time frames, January through June and July through December. Progress reports are due on January 31, covering the time frame July to December and July 31 for the time frame January to June¹⁰.

Submission Instructions

The progress report consists of two parts, a student self-evaluation and an advisor evaluation. This form can be found at: <https://bioengineering.rice.edu/about/student-forms>. It is the student's responsibility to:

- Complete the student self-evaluation portion of the report, attach a copy of their most recent curriculum vitae, and submit both to the department via CANVAS.

¹⁰ First-year students are not required to submit progress reports covering their first semester. Their first report is due in July after their second semester and covering the time frame January – June.

- Provide a copy of the student self-evaluation form, their most recent curriculum vitae, and a blank copy of the advisor portion of the evaluation form to their advisor.
- If a student has finalized their thesis committee, they should also send a copy of the student self-evaluation form and their most recent curriculum vitae to their committee.
- Arrange a time to meet with their advisor to discuss their report.
- Students are not responsible for submitting the advisor portion of the student progress report to the department. This portion of the report will be submitted by the advisor at their discretion.

If a student without good reason, does not submit the student portion of the progress report, this may affect their status as a student in good standing and disciplinary action may be considered.

The Bioengineering director of graduate studies will review the progress reports and may take additional action, such as discussing the report with the student and/or the student's advisor if deemed appropriate.

Relationship Between Graduate Research (BIOE 500) Grade and Progress Reviews

The research course (BIOE 500) and the semi-annual progress report are tangentially related in that both are indicators of the student's progress, however, approach assessment differently. The semi-annual progress report is meant to be a nonpunitive comprehensive report that focuses on research skills and overall accomplishments within a specified six-month time-frame. This report becomes a part of the student's record and can be used to document the student's success, or may lay the groundwork for an improvement plan. BIOE 500 is a graded course (satisfactory/unsatisfactory) based solely on the student's research and research-related activities for a specific semester.

If a student's performance in research is below expectations during a given semester, the student will receive a grade of unsatisfactory in BIOE 500 for the semester. When a student receives a grade of unsatisfactory for BIOE 500, it is an indicator that improvement is necessary. The advisor should discuss this grade with the student and document the basis for the unsatisfactory grade, either on the advisor portion of the semi-annual progress report covering the time frame for the affected semester, or in a counseling letter or performance improvement plan.

A grade of unsatisfactory in a research course is documented on the student's official transcript and results in academic probation by the Office of Graduate and Postdoctoral Studies for the subsequent semester.

Satisfactory Performance

Continued participation and financial support in the Bioengineering PhD program are predicated on a student making sufficient progress toward degree requirements, including coursework, teaching assistant requirements, performance in research, achieving milestones on time, and other reasonable expectations of the student's advisor and the Bioengineering PhD program. To remain in good standing, a student must, at minimum:

- Maintain a professional open line of communication with their advisor
- Maintain a cumulative grade point average (GPA) of 3.2 or better
- Make continuous progress in research
- Remain matched with an advisor and assigned to a lab, and working on thesis research on a full-time basis
- Have a goal of completing all coursework (except colloquia) within the first 3 semesters in residence
- Present an annual oral progress review of research to the thesis committee beginning in the third academic year of residence and each year thereafter
- Submit semi-annual progress review reports by the deadline

- Submit a written copy of a thesis proposal by August 31st after the student's 4th semester (excluding summer) and present an oral defense of the thesis proposal no more than 4 weeks after the submission of the written proposal
- Petition for doctoral candidacy prior to the beginning of the ninth semester in residence (excluding summer semesters)

A student's progress is continuously evaluated. This evaluation is carried out by the student's advisor and their thesis committee. During the first two years, the student must meet with their advisor to discuss their progress at least once per year and more often if necessary.

Once a student has successfully passed their proposal defense, starting at the end of the student's third year in residence, the student must meet with their thesis committee annually to discuss their research progress. The student must submit a two-page summary of their progress and an updated curriculum vitae to their committee prior to this meeting. The committee will give feedback and provide guidance regarding the student's development and ways to improve their research activities.¹¹ The student must document this meeting in their semi-annual progress report.

Inadequate Academic Progress

Students who fail to meet university and department requirements such as failing to secure an advisor by the end of the first semester, failing to meet grade requirements, failing their thesis proposal defense more than once, failing to advance to candidacy or defend their thesis within the required time limits without an approved extension, or who receive an unsatisfactory grade in BIOE 500 for two semesters or two consecutive unsatisfactory evaluations, may be subject to dismissal.

When a student is judged to not be making adequate progress, the student will be warned in writing of possible dismissal and given clear information about what must be done in a specified and adequate time period to address and alleviate problems. These expectations will be reasonable and consistent with expectations held for all students similarly situated in the program. If the student does not meet the stated requirements within the time frame specified, the student may be dismissed from the student's lab by their advisor and possibly dismissed from the program.

Possible Dismissal from the Lab

Possible dismissal from a lab is a two-step process.

1. The student is initially warned that dismissal from the lab due to inadequate research progress is a possibility and given an opportunity to take corrective action.
2. If reevaluation determines the student is still not making adequate progress, the student will receive a notice of dismissal¹².

First Warning

When a student is identified as not making adequate progress, the student is notified in writing that they are considered to not be making sufficient progress and are warned of the possibility of dismissal if improvement is not made. Email notification using the student's Rice email is considered to be "in writing." The written

¹¹ Copies of any written recommendations by the committee should be submitted to the department (ges2@rice.edu) for documentation in the student's record.

¹² All written correspondence and documentation must be submitted to the academic program administrator for inclusion in the student's record, and the Office of the Dean of Graduate Studies.

notice includes a performance improvement plan giving clear and specific information regarding what must be done within a specified time period to alleviate the issues related to poor progress. Expectations must be reasonable and consistent with expectations held for all students similarly situated in the program. The length of the first probationary period is at the discretion of the advisor, but may not be less than 21 calendar days. The student is encouraged to proactively seek a different advisor during the probationary period in order to have options should the current advisor decide to dismiss the student from their lab.

The student will be reevaluated at the end of the first probationary period. If the student has met the stipulations in the improvement plan and is again considered to be making adequate progress towards meeting expectations, the advisor will notify the student in writing that they have been returned to good standing and is no longer being considered for dismissal. However, if at the end of the first probationary period, the advisor determines the student is not demonstrating adequate progress towards meeting expectations, the student will receive a second written notification that sufficient progress has not been made.

Second Warning

The second warning extends the probationary period for a second specified length of time of not less than 21 calendar days. The student is notified in writing of the specific expectations identified in the first warning that must still be met. (Generally, no additional requirements are included in the second warning letter.) The student must be explicitly notified that they are being considered for dismissal. This warning is distinct from any earlier warnings which let the student know of the *possibility* of dismissal. This second notification may precede a trigger for dismissal from a research group. For example, the advisor may notify the student that, if specific expectations are not met by the end date of the second probationary period, the student may be immediately dismissed from the lab. The student should again be encouraged to seek out another advisor during this second warning period. In most cases, dismissal from the lab will coincide with the end of the current semester.

In some cases, when a student has made progress, but is still not meeting all expectations, the advisor may, at their discretion, allow the student additional time. In such cases, the student will be given an additional written warning following the same procedures as the second warning.

Timeline

The probationary period begins on the date the student is given the first warning in writing and terminates when the student is either officially notified they have met the expectations noted in the written warnings and is now considered to be in good standing, or has been officially notified they are dismissed from the lab.

If a student is considered for dismissal but is successful in completing the expectations of the advisor and returned to satisfactory status, but is later found to again be making inadequate progress, the probationary period and dismissal process must be reset to day 1 and student must again be given two warnings of at least 21 days each.

Financial Support after Dismissal

After dismissal from the lab, the advisor is no longer obligated to provide financial support, office space or other supportive measures to the dismissed student. Termination of financial support is treated separately from dismissal from the research group. If financial support is to be terminated, this must be explicitly stated in the latest warning notification or in a separate written notification.

Dismissal from the Bioengineering PhD Program

Dismissal of a graduate student for failing to make adequate academic progress requires that the student be notified of the dismissal. Such a notice is distinct from any earlier warning, which notifies the student of the possibility of dismissal. A graduate program may not dismiss a student, but may recommend dismissal to the Office of Graduate and Postdoctoral Studies. All dismissal notices, as well as warnings of possible dismissal, must be in writing, with a copy sent to the Office of Graduate and Postdoctoral Studies at the time of the communication. Email communication is considered to be “in writing.” A student is not eligible to return to any Rice degree program following a dismissal.

Because of the serious consequences of dismissal from a graduate program, students must receive a 15-day notice of dismissal prior to the effective date of the dismissal. Such a notice may precede the trigger for the dismissal or be included in the General Announcements or graduate program handbooks linked in the General Announcements. For example, a program may notify a student 15 days before a specific milestone that if that milestone is not met, this could result in dismissal. The notice may state the student will be dismissed if they do not find an advisor by a specific date.

In general, a dismissal should take effect following a semester in which the student is enrolled.

Petition and Appeal to Dismissal

Students have the right to appeal dismissal from a graduate program by petitioning for a dismissal to be revoked as described in the “Dispute Resolution” section of the *General Announcements*. A dismissal will be held in abeyance until the petition and appeal process is concluded. Neither the student’s advisor nor the Department of Bioengineering is required to provide financial support to a student during the petition and appeal process. Additional information on the petition and appeals process can be found at <https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/#text>.

Voluntarily Changing Advisors

Once a PhD student affiliates with an advisor and research group, the student is expected to remain with this advisor throughout their PhD studies. However, if a student determines it is in their best interest to find a different advisor, they must notify the Director of Graduate Studies in writing and request a meeting to discuss the reasons for their decision to change advisors and create a plan for finding a new advisor.

The student is responsible for finding a new advisor. Students should arrange to meet with potential advisors to discuss the possibility of joining their lab. As a courtesy, the student should notify their current advisor that they are investigating other labs. In general, students should continue working in their present lab while searching for a new advisor, unless the current advisor, the Director of Graduate Studies, or the chair determines this is inappropriate or not in the student’s best interest.

A student can only change advisors once and may have a maximum of no more than two advisors, including their initial advisor, during their career as a graduate student. Exceptions to this rule are granted only in exceptional circumstances and with the approval of the Graduate Academic Affairs Committee.

Students who change advisors must notify the academic program administrator of their intent to change labs by completing the “Change of Graduate Advisor” form found at <https://bioengineering.rice.edu/about/student-forms> as soon as possible. Failure to complete this form expeditiously may delay their stipend while funding information is updated.

Office and Laboratory Facilities

Bioengineering PhD students whose advisors are Bioengineering faculty will be provided office and lab space within the department. Students who have non-bioengineering or non-Rice advisors should be provided office and lab space by their advisor. Students may be issued keys or electronic access to university buildings, offices, and/or labs. Keys or access cards may not be traded among, loaned to, or passed on to other students and must be returned as soon as the need for regular access has passed. Laboratory users should share in maintaining its security and cleanliness. Spaces should not have doors propped open or left unlocked when unattended. Each lab may have specific requirements, which should be followed by all members of the lab.

Safety Requirements

Office facilities and laboratory spaces have an integrated safety plan. Students should be familiar with their lab's specific plan. Students should bring to the attention of their supervisor or advisor any unsafe laboratory situations they encounter. The following general rules apply to all laboratories:

- Students must complete lab safety training before working in lab facilities.
- Each student using a lab must be acquainted with all the particular safety procedures and safety equipment in the lab.
- Students should contact their advisor or lab manager if they see an unsafe situation or feel the need for additional or different personal protective equipment.
- Observed inadequacy of laboratory safety procedures or equipment must be reported immediately to the student's faculty advisor so that the situation may be corrected.
- Violations of safety procedures or the creation of unsafe or unhealthy conditions must be reported to the responsible faculty.
- Failure to work safely or to maintain orderly professional working environments may result in the forfeiture of all office or laboratory privileges.

Holidays & Paid Time Off

During their first semester, PhD students observe the holidays listed in the academic calendar. Beginning the second semester (January 1), PhD students observe designated staff holidays (<https://knowledgecafe.rice.edu/benefits>). Students receiving stipends should note that normal academic breaks, including midterm recesses and spring break, do not apply to PhD students. Winter Break is considered a holiday for PhD students.

- Paid time off (PTO) is based on the calendar year (January 1st through December 31st).
- Students engaged in research receive ten working days of PTO per year.
- Working days are defined as Monday through Friday.
- Students may take days separately.
- PTO does not carry over from one year to the next.

Individual labs have a specific policy for requesting and documenting personal time off. Students should adhere to their lab's policy. In general students should request time off a minimum of two weeks prior to the days being requested. Although all reasonable requests should be granted, it is at the discretion of the student's advisor to approve specific requests depending on the specific circumstances at the time of the request. Advisors may, at their discretion, allow a student to take additional days if special circumstances warrant such an absence.

In cases of illness or extraordinary circumstances, such as family emergencies, that do not allow for prior notification, the student's advisor or designee should be notified as soon as possible. A student may, at the discretion of the advisor, be required to submit proof of the extraordinary circumstance that led to the student's absence. If a student is unable to perform their duties due to illness for more than two weeks, the student should consider a short-term medical leave of absence.

If a student is not present in the lab and carrying out required duties as expected, for more than one week without prior approval or notice of an emergency that requires an absence of more than one week the student will receive an immediate written warning. If the student is absent from required activities for a contiguous two weeks without permission or mitigating circumstances, the student may be judged as making inadequate progress and is at risk of termination of financial support and/or dismissal from the PhD program. It is at the advisor's discretion to make exceptions for student in extraordinary circumstances that prevent them from being present in the lab.

Masters of Science Program Guidelines

All General Guidelines apply to thesis master's students.

Masters of Science is a thesis-based program. Students are not normally admitted directly to a Master of Science (MS) degree program.¹³

PhD students, under specific circumstances may transfer to the thesis-based MS program and earn a Master's degree as their terminal degree. Students transferring to the MS program will follow the degree requirements in the *General Announcements* found at <https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-thesis-masters-degrees/>.

Advisor

When PhD students transfer to the MS program, they will, in most cases, remain with their original PhD advisor. Exceptions are handled on a case-by-case basis.

Approval of Research Topic

MS students must have the research topic approved by their advisor prior to beginning their research.

Thesis Proposal

A thesis proposal is not required for master's students. While most students transferring from the PhD to the MS program will have already passed their thesis proposal, if a student transfers to the MS program prior to presenting their thesis proposal, the proposal is not required.

Financial Support

MS students receiving financial support are governed by the same financial policies as PhD students.

Teaching Requirements

MS students who receive financial support are expected to fulfill a minimum of one teaching assistant assignment. In cases when a student does not receive financial support, they are exempt from teaching assistant requirements.

Time to Degree

Masters of Science students are required to complete their program within five years of initial enrollment. PhD students who transfer to the MS program typically complete their degree within six months to a year.

¹³ Although rare, there are some exceptional circumstances when a student will be admitted directly to the MS program. A decision to admit a student directly to the Masters of Science program are handled on a case-by-case basis and must be approved by the PhD Admissions Committee.

Masters in Bioengineering (MBE) General Guidelines (For all MBE Students)

General Guidelines (Applies to all MBE Students)

The MBE degree is a non-thesis master's degree. For general university requirements, please see <http://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-non-thesis-masters-degrees/>. The policies in this section apply to all Master in Bioengineering (MBE) students.

There are two major concentrations for the Masters in Bioengineering degree program, Applied Bioengineering and Global Medical Innovation. When students apply to the MBE degree program, they must identify and be admitted into one of these two major concentrations.

- **Applied Bioengineering (Class Only) or Applied Bioengineering (Research Option)**
The Applied Bioengineering concentration is designed as a flexible program for students who will pursue careers in research, medicine, or related fields. This MBE major concentration is designed for students to transition to medical school or a PhD program, or to advance their professional career in the biomedical industry.
- **Global Medical Innovation**
The Global Medical Innovation concentration is designed specifically for students who will pursue a career in the global medical technology industry. This MBE major concentration is designed to prepare engineers for careers in medical technology through education and innovation, emerging-market design projects and internships.

Enrollment Status Requirements

Students may enroll for the MBE Degree with a Major Concentration in Applied Bioengineering (*class-only* or optional *research* experience) on a full-time or part-time basis. For the MBE Degree with a Major Concentration in Global Medical Innovation, students may only enroll on a full-time basis.

General Requirements

All MBE students must meet the following requirements.

- A minimum of 30-31 credit hours, depending on the major concentration and course selection, to satisfy degree requirements.
- A minimum of 30 credit hours of graduate-level study (graduate semester credit hours, coursework at the 500-level or above).
- A minimum of 24 graduate semester credit hours must be taken in standard or traditional courses (with a course type of lecture, seminar, laboratory, or lecture/laboratory).
- A minimum residency of one fall or spring semester of part-time or full-time graduate study at Rice University.¹⁴
- A maximum of 2 courses (six graduate semester credit hours) from transfer credit.
- A minimum of 4 courses (12 credit hours) must be taken in department (BIOE) courses at Rice with a course type of lecture or lecture/laboratory.
- A minimum overall GPA of 2.67 or higher in all Rice coursework.
- A minimum program GPA of 3.00 or higher in all Rice coursework that satisfies requirements for the non-thesis master's degree.

Prerequisites

Students must show evidence on their undergraduate transcript of completion of a class in systems physiology, cell (or physical) biology, and statistics. If courses were not taken for an undergraduate degree,

¹⁴ Students in the GMI program are expected to attend full time for one year in order to successfully complete the program.

they must be completed at the beginning of the degree program. MBE students are expected to complete prerequisite courses during their first semester of study.

The following apply:

1. In order for a course to count toward a prerequisite, the student must have received a grade equivalent of a B- or above in classes taken as part of their undergraduate degree or those taken at Rice. Students who earn a grade of Pass/Fail may count the course as long as they received a "Pass" grade.
2. The following types of non-traditional coursework **cannot** count toward meeting prerequisite requirements:
 - life experience; courses offered by non-collegiate sponsors such as businesses and government agencies, and labor unions, even if evaluated by the American Council on Education (ACE);
 - equivalency examinations (e.g. CLEP); or
 - MOOCs (massive open online course)
3. For the purposes of meeting a prerequisite requirement, courses may be taken for a traditional letter grade or Pass/Fail. However, courses taken Pass/Fail may not be used towards meeting degree requirements.
4. In specific cases, a student may take a course to meet both a prerequisite course requirement and a required elective if the course is a graduate level course (\geq to 500 level or above). For example, BIOE 539 may be taken to meet the prerequisite requirement for statistics and also count towards the graduate degree quantitative requirement.

Students will not be certified to graduate until all prerequisite requirements are met.

Transfer of External Credit, Course Waivers, and Course Substitutions

Under certain circumstances, transfer credit, course waivers, or course substitutions may be approved. All transfer, waived, or substituted courses are decided on a case-by-case basis. Credits may be transferred at any time prior to applying for candidacy. However, students are encouraged to request transfer of credit at the beginning of their graduate program in order to better plan their coursework and schedule. For specific policies and procedures for requesting transfer credit, refer to Addendum 2.

Transfer of External Credit

Under certain circumstances, MBE students may transfer up to six (6) semester credit hours of graduate level courses from their prior undergraduate institution, if the courses were not counted toward any other degree (undergraduate or graduate) and if there is a comparable course identified at Rice University. Transferred courses may not be substantially the same as another course taken at Rice for credit.

Course Waivers

A course waiver is an exemption from a required course because the student has demonstrated that equal or higher-level competencies were attained through a previously completed course outside of Rice University. Students who earned graduate level credit not counted toward any other degree (graduate or undergraduate) may request to waive a course requirement. Unlike transfers or substitutions, approved waivers do not count towards total credit hours. The student is required to meet the minimum credit hours as stated in the degree requirement guidelines.

Course Substitutions

A course substitution is a process by which an alternate course may replace a required or proscribed course within the required foundation requirements in a program of study. The substituted course must be a bioengineering course or another discipline related to bioengineering and determined to be in the best interest of the student (e.g. course is more appropriate in the student's specific situation, course necessary to meet degree requirements, but not available.)

Petition for Exception to a Degree Requirement

Students who wish to deviate from the policies or degree requirements in this handbook must submit a written request for an exemption. Such petitions should be viewed as unusual, rather than typical. Students may petition for a routine exception to an academic requirement, regulation, or judgment by submitting the "Bioengineering Graduate Student Petition" form. Petitions are decided on a case-by-case basis by the program director. Refer to Addendum 1 for instructions on how to file a petition.

Grades

Rice uses a traditional grading system. Grades are reported using conventional (A+ through F) symbols. Instructors are required to report a grade for all students whose names are on the roster. Some courses are graded as satisfactory/unsatisfactory and count toward a student's degree if part of the curriculum for their specific program. More information about grading can be found at [Regulations and Procedures for All Graduate Students < Rice University](#).

Pass/Fail

MBE students may not take as Pass/Fail any course that could potentially be used to fulfill specific degree requirements or electives. Because master's students generally should not take courses that do not advance them to their degree, MBE students generally may not take any course Pass/Fail. If a student is advised to take a supplemental course that is not explicitly part of their degree requirements, these students may seek to audit the course rather than take the course for graded credit. An exception to this rule is Pass/Fail course taken to fulfill prerequisite requirements only.

All students should be aware that while a grade of P does not affect their grade point average, a grade of F is counted as a failure and is included in their GPA.

Time to Degree

The Department of Bioengineering expects students enrolled in the MBE-Applied Bioengineering concentration to complete their degree within two to four semesters.

Students enrolled in the GMI should complete their degree within one calendar year (summer internship and the subsequent fall and spring semester).

All master's students are required by the university to complete their program within five years of initial enrollment. This time boundary includes any period in which the student is not enrolled or enrolled part time, for whatever reasons. Failure to meet any university time to degree deadline may result in the student not being able to continue in their chosen degree program.

Satisfactory Progress

Students will be assessed based upon their grades at the end of each semester. The department will review the student's transcript to determine if the student has met GPA requirements. If the student's overall GPA is below the standard set for their specific major concentration, the student will be placed in a probationary status through the next semester in which the student is enrolled.

Graduate students whose overall GPA falls below 2.67 or their semester GPA falls below 2.33, are placed on academic probation by the Office of Graduate and Postdoctoral Studies. The period of probation extends to the end of the next semester in which the student is enrolled. If that probationary semester results in an overall GPA below 2.67 or a semester grade point average below 2.33, the student may be dismissed without further warning. Additionally, graduate students with a cumulative GPA below 2.00 will be dismissed by the Office of Graduate and Postdoctoral Studies without a probationary period.

Students have one semester to improve their grades. If the student falls below the required GPA for a second semester, the student may be dismissed from the program without further notice.

Holidays and Time Off

MBE students follow the academic calendar and observe normal academic breaks.

Applied Bioengineering (Class Only) Concentration

Students pursuing the MBE degree with an Applied Bioengineering (class-only) major concentration must complete:

Core Requirements (3 Credit Hours)

- BIOE 627: Medical Innovation Industry Seminar (1.5 credit hours)
- BIOE 628: Medical Technology Industry Seminar 2 (1.5 credit hours)

Elective Requirements (18 Credit Hours)

Select six courses (18 credit hours) from approved departmental (BIOE) course offerings at the 500-level or above.^{15, 16}

Quantitative Requirement (3 Credit Hours)

Select a minimum of three credit hours from the following

- BIOE 539: Applied Statistics for Bioengineering and Biotechnology
- BIOE 541: Cell and Molecular Biology for Engineers
- BIOE 552: Intro to Computational Systems Biology: Modeling & Design Principles of Biochemical Networks
- BIOE 572: Biomechanics
- BIOE 502: Physical Biology
- RCEL 506: Statistics and Data Science for Engineers

Professional Development Elective (3 Credit Hours)

Select a minimum of 3 credit hours from the following:

- ENGI 501: Workplace Communication for Professional Master's Students in Engineering
- ENGI 510: Technical and Managerial Communications
- ENGI 515: Leading Teams and Innovation
- ENGI 529: Ethics and Engineering Leadership
- ENGI 555: Engineering Persuasion: How to Drive Decisions and Change
- ENGI 610: Management for Science and Engineering
- RCEL 501: Engineering Management & Leadership
- RCEL 502: Engineering Project Management
- RCEL 505: Leading Engineering Economics
- RCEL 506: Statistics and Data Science for Engineering
- RCEL 542: Professional Communication

¹⁵ Students may include up to six credit hours of BIOE 506 (Graduate Independent Study) within these 18 credit hours. Students taking BIOE 506 must complete a minimum of 12 credit hours of BIOE lecture or lecture/lab coursework.

¹⁶ For students formally admitted into and specifically pursuing the MBE/MD dual degrees program, up to 2 courses (six credit hours) from the McGovern Medical School at the UT Health Science Center can fulfill MBE requirements. BIOE 695 (Transfer – Foundations of Medical Science) and BIOE 696 (Transfer -Doctoring 12: History and Physical Exam). These students must still compete a minimum of 12 credit hours of BIOE lecture or lecture/lab coursework.

General Elective (3 Credit Hours)

Select one (3 credit hours) course from approved department (BIOE) course offerings (or another department) at the 500-level or above.¹⁷

Summary of Requirements

Requirement	Credit Hours
Core Courses	3
Electives	18
Quantitative Requirement	3
Professional Development Elective	3
General Elective	3
Total	30

¹⁷ Students may complete a course offered by another department, but it must be relevant to the MBE degree.

Applied Bioengineering (Research Experience)

Students pursuing the MBE degree with an Applied Bioengineering major concentration (research experience) must complete:

Core Requirements (3 Credit Hours)

- BIOE 627: Medical Innovation Industry Seminar (1.5 credit hours)
- BIOE 628: Medical Technology Industry Seminar 2 (1.5 credit hours)

BIOE Departmental Electives (12 Credit Hours)¹⁸

Select four courses (12 credit hours) from approved departmental (BIOE) course offerings at the 500-level or above.

Quantitative Requirement (3 Credit Hours)

Select 1 course (3 credit hours) from the following:

- BIOE 539: Applied Statistics for Bioengineering and Biotechnology
- BIOE 541: Cell and Molecular Biology for Engineers
- BIOE 552: Intro to Computational Systems Biology: Modeling & Design Principles of Biochemical Networks
- BIOE 572: Biomechanics
- BIOE 502: Physical Biology
- RCEL 506: Statistics and Data Science for Engineers

Technical Writing Requirement (3 Credit Hours)

Select 1 course (3 credit hours) from the following:

- ENGI 501: Workplace Communication for Professional Master's Students in Engineering
- ENGI 510: Technical Managerial Communications
- RCEL 542: Professional Communication

Ethics Requirement (1 Credit Hour)

- UNIV 594 Responsible Conduct in Research

Research Requirement (7 credit hours)

- BIOE 507: Graduate Research Components I (2 credit hours)
- BIOE 607: Research Concentration Components II (5 credit hours)

Additional Electives (2)

Select one 3 credit hour 500-level or above course from BIOE or another related discipline¹⁹ OR two of the 1 credit hour course offerings from those listed below.

- BIOE 698: Bioengineering Colloquia
- BIOS 592: Topics in Quantitative Biology and Biomedical Information
- SSPB 610: Bioelectronics Colloquium
- CHBE 661: CHBE Graduate Seminar

¹⁸ For students formally admitted into and specifically pursuing the MBE/MD dual degrees program, up to 2 courses (6 credit hours) from the McGovern Medical School at the UT Health Science Center can fulfill MBE requirements: [BIOE 695 Transfer - Foundations of Medical Science](#) and [BIOE 696 Transfer - Doctoring 1: History and Physical Exam](#). These students must still complete a minimum of 12 credit hours of BIOE lecture or lecture/lab coursework.

¹⁹ Students may complete a course offered by another department, but it must be relevant to the MBE degree.

- RCEL 536: Introduction to Patents and IP
- BIOE 699: Bioengineering Colloquia
- MECH 606: Mechanical Engineering Graduate Seminar
- CHBE 602: CHBE Graduate Seminar
- RCEL 530: Engineering Launch Pad Pathway to Non-Engineering Careers

BIOE 506

Students choosing to complete the Applied Bioengineering Major Concentration (research experience) will take up to 9 credit hours of BIOE 507, BIOE 607, and seminar courses, which is a structured sequence of MBE research and research seminar courses. For students taking BIOE 507 or BIOE 607, BIOE 506 may also be taken for additional research experience, however, it will not be counted toward the 31 credit hours required for the MBE Applied Bioengineering (Research Experience) degree. The rare exception will be if BIOE 506 is taken as an internship, with the MBE director’s permission, at another institution (academic, clinical, or industry). This exception will be allowed under two conditions:

- A Rice BIOE faculty member will be designated as the supervisor for the course credit and will receive biweekly progress reports; and
- An equivalent number of additional credit hours must be taken through BIOE lecture or lecture/lab coursework at Rice

This arrangement will ensure that students meet the requirement of a minimum 12 credit hours of BIOE lecture or lecture/lab coursework.

Summary of Requirements

Requirement	Credit Hours
Core Courses	3
Department Electives	12
Quantitative Requirement	3
Technical Writing Course	3
Ethics Elective	1
Research Requirement	7
General Elective	2
Total	31

Global Medical Innovation Concentration

Students pursuing the MBE degree with a Global Medical Innovation major concentration must complete:

Core Requirements (3 Credit Hours)

- BIOE 627: Medical Innovation Industry Seminar (1.5 credit hours)
- BIOE 628: Medical Technology Industry Seminar 2(1.5 credit hours)

Medical Technology Design (6 Credit Hours)

- BIOE 527: Healthcare Innovation and Entrepreneurship
- BIOE 529: Healthcare Innovation and Entrepreneurship Lab

Medical Technology Implementation (6 Credit Hours)

- BIOE 528: Medical Engineering and Design Lab
- BIOE 530: Medical Engineering and Design Lab II

Internship or Independent Study (6 Credit Hours)

- BIOE 600: Graduate Bioengineering Industry Internship
- BIOE 506: Graduate Independent Study²⁰

Quantitative Requirement (3 Credit Hours)

Select a minimum of three credit hours from the following:

- BIOE 539: Applied Statistics for Bioengineering and Biotechnology
- BIOE 541: Cell and Molecular Biology for Engineers
- BIOE 552: Intro to Computational Systems Biology: Modeling & Design Principles of Biochemical Networks
- BIOE 572: Biomechanics
- BIOE 502: Physical Biology
- RCEL 506: Statistics and Data Science for Engineers

Professional Development Elective (3 Credit Hours)

Select a minimum of 3 credit hours from the following:

- ENGI 501: Workplace Communication for Professional Master's Students in Engineering
- ENGI 510: Technical and Managerial Communications
- ENGI 515: Leading Teams and Innovation
- ENGI 529: Ethics and Engineering Leadership
- ENGI 555: Engineering Persuasion: How to Drive Decisions and Change
- ENGI 610: Management for Science and Engineering
- UNIV 594: Responsible Conduct of Research
- RCEL 501: Engineering Management & Leadership
- RCEL 502: Engineering Project Management
- RCEL 505: Leading Engineering Economics
- RCEL 506: Statistics and Data Science for Engineering
- RCEL 542: Professional Communication

²⁰ Enrolment in BIOE 506 will be considered on a case-by-case basis, and the student is responsible for obtaining and selecting an internship that best aligns with their career goals. Students typically take BIOE 506: Graduate Independent Study for 2 semesters (3 credit hours each for 6 credit hours total), or 1 semester for BIOE 600: Graduate Bioengineering Industry Internship for six credit hours.

General Elective (3 Credit Hours)²¹

Select one additional course from approved departmental (BIOE) course offerings (or another department) at the 500-level or above. Students may complete a course offered by another department, but it must be relevant to the MBE degree.

Summary of Requirements

Requirement	Credit Hours
Core Requirements	3
Medical Technology Design	6
Medical Technology Implementation	6
Internship or Independent Study	6
Quantitative Requirement	3
Professional Development	3
General Elective	3
Total	30

²¹ For students formally admitted into and specifically pursuing the MBE/MD dual degrees program, up to 2 courses (six credit hours) from the McGovern Medical School at the UT Health Science Center can fulfill MBE requirements. BIOE 695 (Transfer – Foundations of Medical Science) and BIOE 696 (Transfer -Doctoring 12: History and Physical Exam). These students must still compete a minimum of 12 credit hours of BIOE lecture or lecture/lab coursework.

Addendum 1: Graduate Student Petition Form

The purpose of all academic requirements is to preserve the integrity of the Rice degree. Requirements may be waived or modified only upon approval of the director or graduate committee associated with your program. Exceptions to requirements are granted on a case-by-case basis after careful consideration of all facts and are made with consistency and fairness.

To request a modification or waiver of an academic requirement complete the “Graduate Student Petition form” found at the link, <https://bioengineering.rice.edu/about/student-forms>. On this form,

- Identify exception or waiver being requested.
- Explain the reason/rationale for the request. (Use additional pages or attach additional documentation, including forms, class syllabus, etc. if necessary).
- Submit this form to the appropriate academic program administrator or program coordinator. Administrator/coordinator will submit the petition to the program director and/or the program committee for consideration.
- Decisions are normally rendered within two to four weeks.
- In some cases, the request for an exception will also require approval of the Office of Graduate and Postdoctoral Studies. This may increase response time.

The image shows a screenshot of the 'GRADUATE STUDENT PETITION FORM' from Rice University's Department of Bioengineering. The form includes fields for NAME, STUDENT ID, EMAIL, and ADVISOR. It contains two large text boxes for providing a request for special consideration and justification. There are also signature lines for the student and the Director of Graduate Studies, each with a date field. A 'REVISIONS' section with a 'Comments:' field is also present.

This form should not be used for submitting appeals or grievances.

Addendum 2: Transfer of External Course Credit, Course Waivers, and Course Substitutions

Under certain circumstances, transfer credit, course waivers, or course substitutions may be approved. All transfer, waived, or substituted courses are decided on a case-by-case basis. Credits may be transferred at any time prior to applying for candidacy. However, students are encouraged to request transfer of credit at the beginning of their graduate program in order to better plan their coursework and schedule.

Addendum 2A: Transfer of External Credits

Courses taken at another accredited college or university are not automatically approved for transfer credit. Transfer credit is only granted with the endorsement of the student's graduate program and the approval of the student's major department.

- **MBE** students may transfer a maximum of six (6) credit hours.
- **PhD** students may transfer a maximum of twelve (12) credit hours.

Course Restrictions

- Students must have taken the course at a United States academic institution accredited by a regional accrediting agency, or at a foreign institution accredited by the appropriate agency, such as the government's Ministry of Education.
- Official transcripts from the transfer credit institution must be sent directly from the institution's registrar to the graduate program or hand-delivered in an official sealed envelope.
- All coursework must have earned a grade of at least a C- or the equivalent. Students may not transfer courses taken Pass/Fail or on a similar basis at other institutions.
- Courses used toward any degree at another institution are not eligible for transfer.
- To transfer as graduate level equivalents at Rice University, courses must have been taken at the graduate level at the transfer credit institution.
- Non-bioengineering courses may be transferred and can be counted toward the required coursework if there is an equivalent Rice course, if the course is in a discipline related to bioengineering, and the course can be used to meet a requirement of the student's graduate program.
- Students seeking transfer credit must submit a [Graduate Request for Transfer Credit form](#) to the graduate program for approval.
- Courses to be transferred must be matched to an equivalent graduate level Rice course.
- The graduate program must review the credits and confirm the comparable course chosen by the student is comparable at Rice University and submit a copy of the transcript and the approved Graduate Request for Transfer Credit form to the Office of the Registrar. The Office of the Registrar will submit the transfer request form to the dean of graduate and postdoctoral studies for review and approval
- Grades earned for transfer credit are not entered on the Rice transcript, and transferred courses have no effect on a student's Rice grade point average.
- All transferable credits from schools utilizing a system other than the semester hour (such as quarter hours or ECTS credits) will be converted to semester hours. In accordance with university guidelines and based on the external transcript, the Office of the Registrar will determine appropriate

transferable credit hours. In no instance will a course transfer in with credit greater than the semester hour equivalent originally earned for the coursework.

- If courses are taken at an institution utilizing a non-traditional grading scales (e.g. grading scale other than the standard four-point scale, competency grading, etc.), it is the student's responsibility to obtain an explanation of the institution's grading policy, an explanation of how to translate grades to a standard four-point scale, and documentation that the grade for courses being transferred are equivalent to a C- (2.67) or above.
- Courses may not be transferred to count in place of UNIV 594, BIOE 500, BIOE 504, BIOE 690 or BIOE 698/699.
- Non-traditional coursework will not transfer to Rice for credit. This category includes but is not limited to the following: a.) life experience; courses offered by non-collegiate sponsors such as businesses and government agencies, and labor unions, even if evaluated by the American Council on Education (ACE); b.) equivalency examinations (e.g., CLEP); and c.) MOOCs (massive open online courses).
- Students seeking transfer credit for courses taken pre-matriculation and post-matriculation at institutions outside the United States must present a professional course-by-course evaluation of the foreign official transcript. The professional evaluation must verify that the foreign institution is equivalent to a regionally accredited U.S. academic institution and must include an explanation of credits earned (including U.S. semester hour equivalents), grade equivalents, and course levels (lower- or upper-level). Two reliable services with course-by-course evaluations that include this required information are:

[SpanTran](#)

[Education Credential Evaluators](#)

All professional evaluations should be obtained from one of these two recommended credential services and submitted to the Office of the Registrar (for undergraduate students) or to the degree program (for graduate students). Payment for the professional evaluation is the responsibility of the student.

Transferring Coursework Taken While an Undergraduate at Rice*

Graduate programs may consider counting graduate courses taken by a student while an undergraduate at Rice as credit toward a graduate degree. The following guidelines must be followed:

- The course to be transferred is designated on the transcript at the 500-level or higher.
- The courses must be chosen from those that normally satisfy requirements for the graduate degree.
- No course can be used simultaneously to satisfy both an undergraduate and a graduate degree requirement.
- Coursework taken as an undergraduate will not be converted to indicate a graduate level in the student's academic history until after the bachelor's degree is awarded.
- Coursework taken as an undergraduate does not indicate the student's matriculation term for the graduate program—the matriculation term will be the term the student officially enters the program as a graduate student after completing all undergraduate requirements.

Regardless of the number of graduate courses taken at the undergraduate level, a student must meet the residency requirement of the degree as a graduate student.

Procedure for Transferring Courses

Students who wish to transfer courses from a different institution should follow the procedure below:

Identify a Rice course equivalent to the course you wish to transfer.

- 1) Complete the “Graduate Request for Transfer Credit” * (found at <https://registrar.rice.edu/online-forms>).
- 2) Submit the following to your program coordinator or academic administrator
 - (a) The “Graduate Request for Transfer Credit form”
 - (b) Copy of the description of the course identified as equivalent to the course you wish to transfer
 - (c) Copy of the course syllabus or official description of the course you wish to transfer
 - (d) Proof the course was not used to meet degree requirements for your undergraduate degree (This information can be obtained from the registrar’s office where you received your undergraduate degree
 - (e) If a copy is not already submitted, request a copy of the transcript from your former institution be sent electronically or in paper format directly to the Department of Bioengineering.

Failure to provide all necessary information will delay the course transfer process.

*Undergraduates transferring courses from their Rice undergraduate transcript to their graduate must use the “Request to Apply Undergraduate Coursework to the Graduate Program” in place of the” Graduate Request for Transfer Credit.”

Courses may not be transferred to meet the requirement for UNIV 594, BIOE 500, BIOE 504, BIOE 690 or BIOE 698/699.

Your department coordinator will process your request and provide you the final decision regarding transfer credit, however, it is your responsibility to ensure course credit has been documented on your official Rice transcript.

Addendum 2B: Course Waivers

A course waiver is an exemption from a required course because the student has demonstrated that equal or higher-level competencies were attained through a previously completed course outside of Rice University.

Unlike transfers or substitutions, approved waivers do not count towards total credit hours. The student is required to meet the minimum credit hours as stated in the degree requirement guidelines. (Graduate Research (BIOE 500) may be used to make up hours for waived courses.)

Course Restrictions

- Students must have taken the course at a United States academic institution accredited by a regional accrediting agency, or at a foreign institution accredited by the appropriate agency, such as the government's Ministry of Education.
- Official transcripts from the transfer credit institution must be sent directly from the institution's registrar to the graduate program or hand-delivered in an official sealed envelope.
- All coursework must have earned a grade of at least a B- or the equivalent. Students may not use courses taken Pass/Fail or on a similar basis at other institutions.

- To waive a course as graduate level equivalents at Rice University, courses must have been taken at the graduate level at the student's prior institution.
- Waived course must be designated as a bioengineering course.
- Students seeking transfer credit must submit a [Graduate Request for Transfer Credit form](#) to the graduate program for approval.
- Courses to be waived must be matched to an equivalent graduate level Rice course.
- Grades earned for waived credit are not entered on the Rice transcript, and transferred courses have no effect on a student's Rice grade point average.
- Non-traditional coursework will not transfer to Rice for credit. This category includes but is not limited to the following: a.) life experience; courses offered by non-collegiate sponsors such as businesses and government agencies, and labor unions, even if evaluated by the American Council on Education (ACE); b.) equivalency examinations (e.g., CLEP); and c.) MOOCs (massive open online courses).
- If courses are taken at an institution utilizing a non-traditional grading scales (e.g. grading scale other than the standard four-point scale, competency grading, etc.), it is the student's responsibility to obtain an explanation of the institution's grading policy, an explanation of how to translate grades to a standard four-point scale, and documentation that the grade for courses being transferred are equivalent to a B- (2.67) or above.

Courses may not be transferred to meet the requirement for UNIV 594, BIOE 500, BIOE 504, BIOE 690 or BIOE 698/699.

Procedure for Requesting a Course Waiver

Students who wish to waive courses should follow the procedure below:

1. Identify a Rice course equivalent to the course you wish to transfer.
2. Complete the "Bioengineering Graduate Student Petition: form (found at <https://bioengineering.rice.edu/about/student-forms>).
3. Submit the following to your program coordinator or academic administrator
 - a) The "Graduate Request for Transfer Credit form"
 - b) Copy of the description of the course identified as equivalent to the course you wish to transfer
 - c) Copy of the course syllabus or official description of the course you wish to transfer
 - d) Proof the course was not used to meet degree requirements for your undergraduate degree (This information can be obtained from the registrar's office where you received your undergraduate degree)
 - e) If a copy is not already submitted, request a copy of the transcript from your former institution be sent electronically or in paper format directly to the Department of Bioengineering.

Failure to provide all necessary information will delay the course transfer process.

Courses may not be substituted to meet the requirement for UNIV 594, BIOE 500, BIOE 504, BIOE 690 or BIOE 698/699.

Addendum 2C: Course Substitutions

A course substitution is a process by which an alternate course may replace a required or proscribed course within the required foundation requirements in a program of study.

The substituted course must be a bioengineering course or another discipline related to bioengineering and determined to be in the best interest of the student (e.g. substituted course is directly related to the student's research, is more appropriate in their specific situation, or a student in their last semester and a required course is unavailable.)

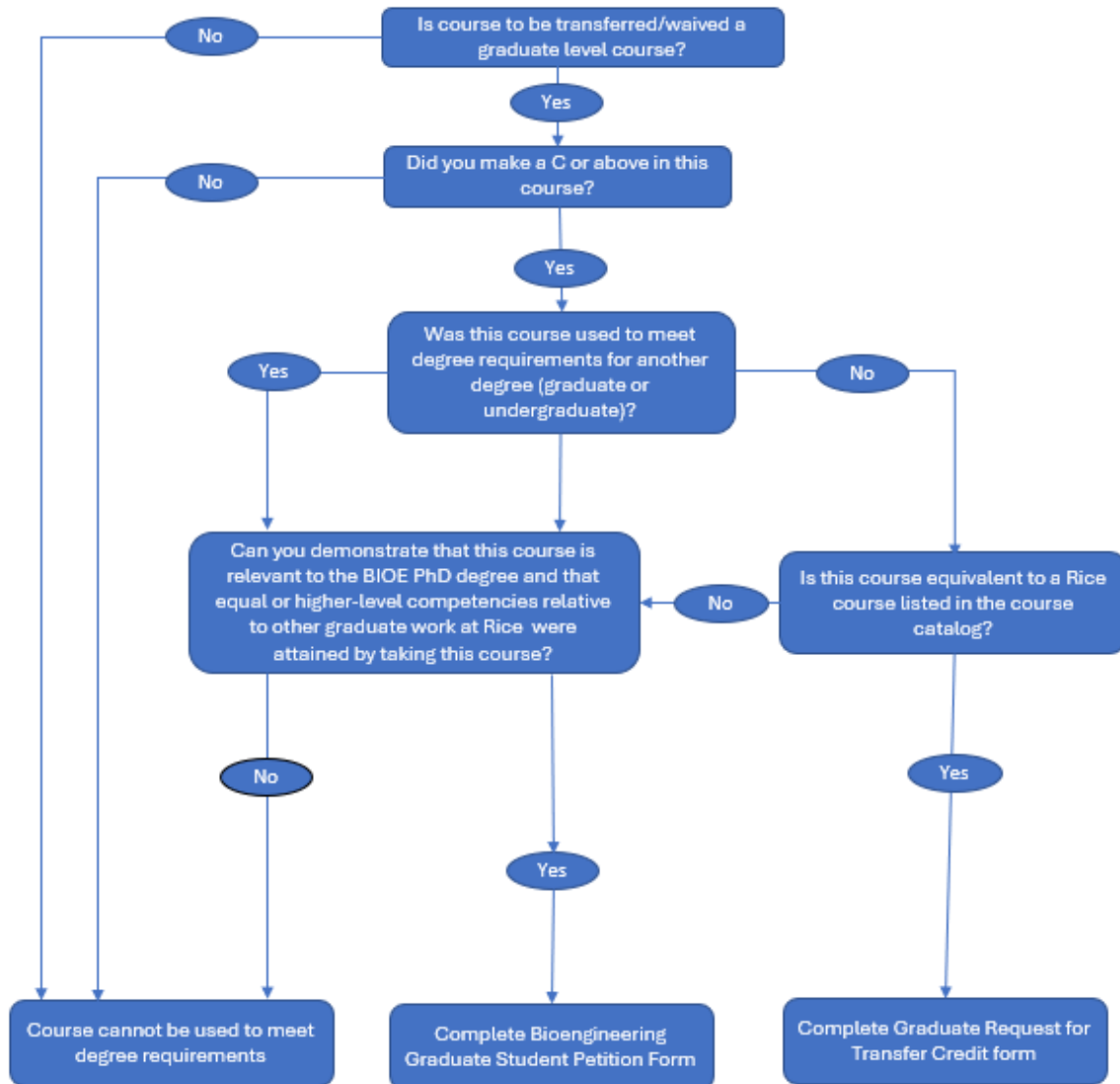
Procedure for Requesting a Course Substitution

Students who wish to substitute a course should follow the procedure below:

1. Identify a Rice course equivalent to the course you wish to transfer.
2. Complete the "Bioengineering Graduate Student Petition: form (found at <https://bioengineering.rice.edu/about/student-forms>).
3. Submit the following to your program coordinator or academic administrator
 - a) The "Graduate Request for Transfer Credit form"
 - b) Copy of the description of the course identified as equivalent to the course you wish to transfer
 - c) Copy of the course syllabus or official description of the course you wish to transfer
 - d) Proof the course was not used to meet degree requirements for your undergraduate degree (This information can be obtained from the registrar's office where you received your undergraduate degree
 - e) If a copy is not already submitted, request a copy of the transcript from your former institution be sent electronically or in paper format directly to the Department of Bioengineering.

Failure to provide all necessary information will delay the course transfer process.

External Credit Transfer or Course Waiver



Instructions:

1. Complete Transfer for Credit form
2. Attach a copy of the syllabus/course description of the course you wish to transfer
3. If you have not already sent a copy of your official transcript to Rice, request a copy be sent to the department
4. Submit the Transfer Credit form and the syllabus/course description to your program coordinator.

You may not transfer courses for credit to meet requirements for UNIV 594, BIOE 504, BIOE 690, BIOE 698/699, or BIOE 500.

Instructions:

1. Complete Transfer for Credit form
2. Attach a copy of the syllabus/course description of the course you wish to transfer
3. If you have not already sent a copy of your official transcript to Rice, request a copy be sent to the department
4. Submit the Transfer Credit form and the syllabus/course description to your program coordinator.

You may not transfer courses for credit to meet requirements for UNIV 594, BIOE 504, BIOE 690, BIOE 698/699, or BIOE 500.

Addendum 3: Teaching Assistant Requirements

Definition of Teaching Assistant

PhD Students must undertake a limited amount of teaching or perform other services as part of their training. Teaching assistants (TA) are defined as graduate students who help faculty with the delivery of courses. Services provided by teaching assistants include, but are not limited to grading, monitoring, leading labs and/or discussion sessions, offering office hours, and performing clerical tasks associated with course instruction.

Requirements

The Department of Bioengineering requires teaching assistants (TA) to complete two teaching assistant assignments. Each TA assignment will entail up to 10 hours work per week.

The following policies apply:

- TAs are supervised by the course instructor. Students should arrange to meet with the instructor prior to the beginning of the teaching assignment to discuss expectations and deadlines.
- Instructors should provide TAs sufficient instructions at the beginning of the TA assignment and TAs are expected to fulfill all reasonable requests made by an instructor. Conflicts regarding expectations that cannot be resolved between the instructor and TA should be discussed with the Bioengineering director of graduate studies.
- TAs should expect to attend scheduled classes for the course to which they have been assigned unless specified otherwise by the course instructor.
- Students may not TA a course in which they are enrolled.
- Registering for courses that conflict with a TA assignment after the assignment is finalized is not permitted.
- Students may not accept more than two (2) TA assignments unless express permission by the Bioengineering director of graduate studies is given.
- More than one TA may be assigned to a class and all TAs are expected to work collaboratively with each other and graders assigned to the class.
- If a student is planning to pursue an academic career, they are encouraged to request more involved TA assignments. Request for such assignments must be made to the Bioengineering director of graduate studies prior to the end of the semester directly preceding the TA assignment. It may not be possible to accommodate all requests.

TA Training

- In addition to the online TA training completed as part of the non-curricular training required of PhD students when they matriculate, PhD students serving as teaching assistants must also complete training required by the School of Engineering prior to a student's first teaching assignment and on an ongoing basis. Specific training requirements will be provided by the School of Engineering.
- Students must attend department specific training prior to each semester. This training will be announced prior to the date of the training.

Teaching Assignment Time Frame

Students will not be given teaching assignments during their first semester. They should expect to fulfil their TA assignments between their second and fifth semester (excluding summers). TAs will generally not be assigned more than one TA assignment during a single semester except in unusual circumstances. Exceptions must be approved in advance by the director of graduate studies.

Teaching assistants should expect to be available throughout the semester and through the end of final exams or after to support the courses for which they have responsibility. Any absence from campus for more than one week by a TA during the semester must be approved by the student's advisor and the instructor of the course for which the student is serving as a TA.

Teaching Assistant Conduct

Although TAs are not members of the faculty, they are expected to conform to the same standards of conduct in the performance of their academic duties as are members of the faculty and shall respect the rights and opinions of students and uphold the academic standards of the university.

TAs must adhere to the ethical values, principles, and university code of conduct in their relationship with faculty members, students and other community members inside and outside the university. The University TA Handbook, found at <http://honor.rice.edu/ta-handbook/> should be reviewed and used as a resource throughout the student's TA responsibilities.

TAs are also subject to the guidelines in the Consensual Sexual or Romantic Relationships in the Educational or Workplace Environment Policy (<https://policy.rice.edu/829>) as well as the Family Educational Rights and Privacy Act (FERPA) (<https://registrar.rice.edu/ferpa/>).

When serving in the role of a teaching assistant, graduate students are considered responsible employees under the University Title IX Policy (<https://safe.rice.edu>). As a responsible employee of Rice University, once a TA knows about any incident of sexual assault, harassment, relationship violence, stalking, or another non-consensual interpersonal behavior, Rice Title IX personnel need to know so they can act to support the student and keep the community safe. When a TA becomes aware of an incident, they should contact the Title IX Coordinator at titleix@rice.edu. If a student wants to make a report through the university, wants Title IX accommodations without making a report, or isn't sure what to do, he/she may call 713-348-3311 or extension 3311 on campus.

If the student wants to make a report through the legal system or is considering making a report, or needs immediate assistance, he/she should call the Rice University Police Department (RUPD) 713-348-6000 or extension 6000 on campus.

TA Evaluation

Teaching assistants will be evaluated at the end of the TA assignment by the course instructor. If the course instructor feels the TA has not met the expectations of their position, the instructor should contact the director of graduate studies who will determine if the student should or should not receive credit for the TA assignment.

Addendum 4: Applying for Candidacy

Candidacy is the midpoint in the course of graduate education. Achieving candidacy for the PhD implies that a student has:

- completed required course work
- passed the thesis proposal defense
- completed all teaching assistant assignments
- demonstrated the ability for clear oral and written communication
- shown the ability to carry out scholarly work in bioengineering

Each PhD student must petition for candidacy prior to the beginning of their ninth semester (excluding summer semesters). A student cannot defend their thesis until the dean of graduate and postdoctoral studies approves their candidacy. Forms related to candidacy and defense can be found at [Forms | Graduate and Postdoctoral Studies | Rice University](#).

Instructions for Submitting the Candidacy Petition

Use the “Petition for Approval of Candidacy for a Doctoral Degree” form. This form can be found at [Forms | Graduate and Postdoctoral Studies | Rice University](#) to petition candidacy.

Petitions must be submitted to the Office of Graduate and Postdoctoral Studies (GPS) electronically by the department.

- Complete sections 1, 2, (graduate program & student ID only; you do not need to provide the attachments) 3, and 4 of the candidacy petitions to the academic administrator (ges2@rice.edu).
- In section four, when filling in the candidacy petition form, enter the full names (the name they publish under) for your director/committee chair and all committee members. Nicknames or initials are not to be used.
- Submit the form to the academic program administrator (ges2@rice.edu).
- The academic program administrator will
 - a. Complete an audit of the student’s record (transcript, TA records, etc.) to confirm the student has met all requirements for candidacy. (If the audit suggests a specific requirement has not been met or the academic administrator has any questions, the student will be notified.)
 - b. Attach the three documents requested under section two
 - c. Obtain all necessary signatures.
 - d. Submit the form and all required attachments to GPS electronically.
 - e. Notify you when GPS confirms they have received the candidacy petition form.
 - f. Notify you when GPS confirms candidacy has been approved.²²

²² GPS approves candidacy petitions as timely as possible. However, due to the growing number of graduate students, approval may take a significant amount of time, but will be completed prior to your defense date.

Example of the candidacy form:

PETITION FOR APPROVAL OF CANDIDACY FOR A DOCTORAL DEGREE (C-2)

Candidacy for the Doctoral degree cannot be approved until the applicant has completed all course requirements, all qualifying or preliminary examinations or department equivalent, and any foreign language requirements.

1. Name of applicant _____
(Last) (First) (M.I.)

2. Department/Graduate program _____ Student ID # _____

Attach to this application a current transcript (printed from WebApps; see your graduate coordinator).

Attach to this application a statement of all applicable departmental requirements for both course work and qualifying or preliminary examinations.

Attach student's departmental checklist to candidacy to document how the student has fulfilled departmental requirements.

3. Proposed thesis topic (tentative title) _____

4. Thesis Committee, subject to the approval of the GPS. (**type or print**) Please see the General Announcements for rules regarding the composition of thesis committees.

(a) Thesis Director _____

Committee Chair within the department (**if different**) _____

(b) Member **within** the department _____

(c) Member **outside** the department _____

Additional member(s) _____

*Thesis committees may later be changed. See <http://graduate.rice.edu/thesis> for additional information.

5. Signatures:

Original signature of Department Chair or Director of Graduate Studies	Date _____
Graduate Coordinator signature	Date _____
Dean of Graduate & Postdoctoral Studies	Date _____

RETURN TO DEPARTMENT COORDINATOR

These sections completed by the student

This section is Completed by the Academic Program Administrator

Extension of Time to Candidacy

Student who are unable to meet the time boundary must submit an extension of candidacy request to the Office of Graduate and Postdoctoral Studies or risk dismissal. A \$125 reinstatement fee will be imposed on students who have exceeded their time boundaries. Information on time boundaries can be found in the *General Announcements at [Academic Policies and Procedures | Rice University](#)*.

Addendum 5: List of Forms

Prerequisite Forms

Masters in Bioengineering Applied Bioengineering Prerequisite Evaluation

https://docs.google.com/forms/d/e/1FAIpQLSeA8jBMoUTJP8puQgJYPClzGYbHkGjxjuJz-w7cSDnBaTK54g/viewform?usp=sf_link

Masters in Bioengineering GMI Prerequisite Evaluation

https://docs.google.com/forms/d/e/1FAIpQLScTboiSJe1u5LVEE4yXjv8EYLE8tHiZqYc-Ju1cAZCJkblLug/viewform?usp=sf_link

PhD Prerequisite Evaluation

https://docs.google.com/forms/d/e/1FAIpQLScIV4fCDTU5p4a5uYSUigZxprENzuR5yhKu-gfvdvwGZw0dvQ/viewform?usp=sf_link

Prerequisite Update Form

https://docs.google.com/forms/d/e/1FAIpQLSe1T44774e51-BxVpcpxL9rCSKtQxT7y-7bELM2-5bUa01RLQ/viewform?usp=sf_link

Registration Form

Graduate Special Registration (and Request for Registration Restriction Override) Form

<https://registrar.rice.edu/online-forms>

Inter-institutional Graduate Student Registration form

<https://registrar.rice.edu/online-forms>

Pass/Fail Conversion form

<https://registrar.rice.edu/online-forms>

Pass/Fail Designation form

<https://registrar.rice.edu/online-forms>

Transfer of Credit Forms

Graduate Request for Transfer Credit Form

<https://registrar.rice.edu/online-forms>

Request to Apply Undergraduate Coursework to Graduate Program (Rice Undergraduate Courses)

<https://registrar.rice.edu/online-forms>

Rotation Forms

Rotation Plan Form

<https://bioengineering.rice.edu/about/student-forms>

Permission to Rotate form

<https://bioengineering.rice.edu/about/student-forms>

Advisor Match Form

<https://bioengineering.rice.edu/about/student-forms>

MBE Program Change of Enrollment Status form

<https://bioengineering.rice.edu/about/student-forms>

Thesis Committee Forms

Thesis Committee Confirmation Form

<https://bioengineering.rice.edu/about/student-forms>

Request for Committee Revisions (Post Candidacy)

<https://bioengineering.rice.edu/about/student-forms>

Thesis Proposal Forms

Proposal Defense Forms

<https://bioengineering.rice.edu/about/student-forms>

Request for Extension of Thesis Proposal

<https://bioengineering.rice.edu/about/student-forms>

Candidacy

Doctoral Candidacy Petition

<https://graduate.rice.edu/academics/forms#Candidacy>

Request for Extension of Time to Candidacy

<https://graduate.rice.edu/academics/forms#Candidacy>

Application for Degree

Pre-Printed Application for Degree (GR Students)

<https://bioengineering.rice.edu/about/student-forms>