



Biomedical Engineering

POLICIES AND **REGULATIONS**

Governing the PhD Students in the Department of
Biomedical Engineering for the School Year
2026-2027

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A. Welcome and Program Overview

Welcome Letter from the Department Chair

Since our founding in 1997, the Department of Biomedical Engineering at Washington University in St. Louis (WashU BME) has combined excellence in research and teaching to advance knowledge and new technology to improve human health. Our department sits within the McKelvey School of Engineering on the East End of the historic Danforth Campus. With [33 faculty](#) and [more than 130 affiliated faculty](#) across the Schools of Medicine, Arts & Sciences, and McKelvey Engineering, WashU BME is a vibrant and engaging community for your continued studies, research translation and career development.

As a doctoral student, you will participate in mentored research opportunities, take courses from faculty across campus, and have opportunities to partake in [interdisciplinary research centers](#), that together creates a remarkably fertile environment for learning. Our Ph.D. graduates have continued their research careers in government, academia and private sectors, and have applied their research skills to problem-solving in consulting, management, and more. We stay connected with our alumni and bring them in to support mentorship and engagement with current students.

This handbook will serve as a resource at the start and throughout the pursuit of your PhD at WashU BME. We invite you to peruse the pages and policies, and interact with our dedicated PhD support team with questions about your path.

We are excited for you to join our committed and passionate group of faculty and student scholars at Washington University.

Lori Setton, PhD

Department Chair and Lucy & Stanley Lopata Distinguished Professor of Biomedical Engineering

Program Objective:

The objective of our biomedical engineering PhD program is to advance knowledge and innovation to improve human health and well-being. Our program values rigorous scholarship, interdisciplinary collaboration, and ethical practice, and seeks to develop tomorrow's leaders in biomedical innovation and research.

B. Program Contacts and Leadership

Department Location and Contact:

Washington University

McKelvey School of Engineering

Biomedical Engineering

1 Brookings Drive, St. Louis, MO 63130-4899

Whitaker Hall, Room 190

MSC: 1097-202-190

Phone: 314-935-7208

Email: bme@wustl.edu / bmephd@wustl.edu

The administration of the BME PhD program at WashU is overseen by the Director and Associate Director of Graduate Studies, who works closely with the Graduate Program Advisor, the Graduate Program Coordinator, as well as the Doctoral Affairs Committee (DAC) to ensure academic integrity, student support, policy compliance and smooth and effective day-to-day operations.

Key roles include:

Role	Name	Email	Responsibilities
Director of Graduate Studies	Jin-Yu Shao, Ph.D.	shao@wustl.edu	Academic policies, exceptions, advising
Assoc. Director of Graduate Studies	Jai Rudra, Ph.D.	Srudra22@wustl.edu	PhD student recruiting, affiliate faculty mentoring
Graduate Program Advisor		McKelveyGraduateProgramsOffice@wustl.edu	Course registration, degree requirements, forms, advising
Department Chair	Lori Setton, Ph.D.	setton@wustl.edu	Broad concerns or unresolved issues
Program Coordinator	Miri Voigt, MA	mirivoigt@wustl.edu	MTE, student support, 1 st year advising, seminars, events.
Ombuds		To contact the Ombuds team, please visit: https://mwi.org/washu-ombuds/	Confidential reporting
McKelvey Office of Graduate Programs (OGP)		McKelveyGraduateProgramsOffice@wustl.edu	University-wide support

C. First-Year Milestones

First Year at-a-glance checklist

PhD Year 1 Timeline (Month-by-Month Overview)			
Milestone/Focus	Description	If you started in the FALL	If you started in the SPRING
 Orientation & Settling In	- Attend program orientations - Register for nine credits - Complete lab affiliation form	Aug/Sep Lab affiliation form due Aug 31	Jan/Feb Lab affiliation form due Jan 31
 Coursework & Lab	Focus on courses and Independent Study Report	Sep	Feb
 Coursework & Check-In	- Focus on courses and independent study report - Schedule an advising meeting with Dr. Shao	Oct	Mar
 Registration	Register for nine units by no later than add/drop	Nov	Apr
 Independent Study Report	- Submit Independent Study Report by the end of the semester - Graduate Program Advisor and Graduate Program Coordinator are available throughout to support with independent study report	Dec	May
 Planning Ahead	- Complete Independent Study course paperwork (one week before the start of the semester) - Start next semester courses	Jan	Aug

 Coursework & QE (Qualifying Exam) Prep	• Focus on courses and continue to advance in research • Start planning and preparing for QE including committee formation • Finalize QE committee	Feb-Mar	Sep-Oct
 Registration & QE Prep	• Register for courses (nine credits) • Schedule QE exam date	Apr QE exam to be scheduled by Apr 30	Sep QE exam to be scheduled by Sep 30
 QE	• Complete RCR before QE • Complete QE • BME and OGP are available throughout to support Q&A about QE and MTE processes	May Complete QE by May 31	October Complete QE by Oct 31
 Research & MTE (Mentored Teaching Experience)	• Start process to form RAC (Research Advisory Committee) • Complete MTE prep courses • Identify an MTE assignment for semester ahead	Jun-Jul	Nov-Dec

D. Program Milestones

While the time to degree may vary based on individual progress and research scope, most students complete the program within 5 to 6 years. The typical timeline includes:

Milestone	Typical Timing	Related Forms or Actions
Lab affiliation	By no later than End of August (Fall entry) or end of January (Spring entry)	Lab Affiliation Form
Qualifying Exam (QE)	Completion by May 31 of year 1 (for Fall start) Completion by October 31 of year 1 (for Spring start)	Qualifying Exam Form
Research Advisory Committee (RAC)	After passing Qualifying Exam	Research Advisory Committee Form
Mentored Teaching Experience (MTE)	After qualifying examination but before thesis defense (often in year two or three)	Set up and scheduled by the BME department. Students will be surveyed about their preferences and assigned before the start of a new semester (preferences not guaranteed)
Thesis Proposal	Before the end of the third year in the PhD program	Thesis Proposal Form
Annual Progress Report	Submitted annually before May 31 starting in year two	Annual Progress Report Form
Dissertation Defense	Final year	Inform Graduate Program Advisor early with defense plans

a. Lab Affiliation Requirements:

Research Mentor Selection: Students admitted in the 2026-2027 academic year are admitted through a direct placement. This means they will begin their research in the faculty mentor's lab immediately

after enrolling at WashU. Students are asked to work closely with their mentor to identify research projects with their mentor and submit independent study reports at the end of the first and second semester. Each student will have a mentor who is a “Primary” or “Affiliated” faculty member of the BME department, who must show proof of funding resources for the admitted student. Please see the department website for current members of the faculty: <https://bme.washu.edu/faculty-research/directory.html>. Only “Primary” or “Affiliated” faculty members of BME may serve as a research mentor of PhD students.

Independent Study Report:

At the end of each semester in the first year, the student will submit a written document to the research mentor and the BME department satisfying the following guideline:

a) **Write a report on the research conducted by the student during the first semester.** The report should be written in the form of a standard research article, and it must include the student’s name; the title of the report; the semester and year of the independent study; the mentor’s name and the date of the report. This document should be double spaced and although there is no page limitation, the report should be concise and paginated. If the project has not been completed, preliminary or partial results are to be described. It is recommended that the document contains the following sections:

Abstract – In one paragraph, summarize the objectives, methods, main results, and conclusions.

Introduction – Describe the motivation for and objectives of the research.

Methods – Give details of the procedures and calculations.

Results – Describe the results of the study, referring to graphs, tables, and illustrations by number.

Discussion – List the main findings and put them in the context of previously-published research on the topic. Discuss the meaning and implications of your results, any surprising findings, sources of error, limitations, etc. Support any assertions by referring to specific data or previously-published research.

References – List pertinent articles, using appropriate citation formatting.

All reports must be submitted prior to the qualifying exam.

Selection of a Thesis Research Mentor (Lab Affiliation)

At the end of a semester, the student’s mentor will complete an evaluation of the student. These evaluations will become part of the student’s permanent file and will be considered by the qualifying exam committee during the qualifying examination. A student’s thesis research mentor (**also called “Doctoral Advisor” or “Research Advisor”**) must agree to be the research mentor through an approval process initiated by the Graduate Program Advisor. During this process the [Lab Affiliation Form](#) should be filled out and signed by both the student and the thesis research mentor and submitted by no later than August 31 (for students beginning the program in the fall semester) and January 31 (for students beginning the program in the spring semester)

Joining a research lab for pursuit of doctoral research is a process involving close communication between the mentor and the student, and that communication should begin early and be ongoing throughout the student’s research journey. It is likely that the student will be asked to sign a mentor-mentee compact with their research advisor. A McKelvey School of Engineering wide PhD Mentor-Mentee Expectation sheet can be found at the end of this policy book.

b. Qualifying Exam

Because the PhD is primarily a research degree, the qualifying exam is designed to assess the candidate's aptitude for independent research. After completing at least one semester in the research lab, the student may elect to take the Qualifying Examination. After the Independent study reports have been submitted to the Graduate Program Advisor, the student will select documents as the basis for the qualifying examination. In preparation, the student must collaborate with their thesis research mentor to identify three core areas of knowledge that are essential for pursuing doctoral research in the mentor's laboratory. These areas must fall within the field of Biomedical Engineering and should align with the expertise of **Primary** or **Affiliated** faculty members in the department. The selected areas will serve, in part, as the basis for examination questions.

To be eligible to stand for the Qualifying Examination (QE), a student must have completed and be currently enrolled in a total of at least 18 credits at Washington University, successfully completed the Responsible Conduct of Research (RCR) training, and have a minimum GPA of 3.00.

Once the core areas are established, the student is to propose and discuss a three-member Qualifying Examination Committee with their research mentor. Each member must be qualified to assess the student's research performance and possess expertise in at least one of the selected core areas. Note that **at least one** of the committee members must be a **primary BME faculty member**. After the mentor confirms that the proposed committee meets departmental requirements, the student must submit the selected core areas and the proposed committee to by submitting the [Qualifying Exam Committee Form](#). Upon receiving the approval, the student or mentor may formally invite the committee members to participate in the examination. One of the members of the committee will be appointed as the chair of the committee. The mentor may be present for clarification but shall not vote. Copies of the qualifying exam report and the student's CV must be distributed to the members of the examining committee by the student at least two weeks before the date of the exam. If the student does not submit the qualifying exam report two weeks before the exam, any committee member may demand that the exam be rescheduled and may ask that the exam be canceled. If canceled, the student automatically fails the exam.

It is typical that the student and mentor will seek more in-depth literature review, analysis and interpretation, and may even seek more experiments prior to completing the qualifying examination report for distribution to the committee.

The Qualifying Examination must be completed by **no later than May 31 of the student's first academic year (for students starting in Fall) or October 31 (for students starting in Spring)** in order to progress to doctoral candidacy. When standing for the Qualifying Examination, the student will appear before the examination committee to give a brief presentation, followed by an oral examination in which the committee will ask questions. Before starting the presentation, the chair of the committee will ask the student to leave the room so that the committee can review the student's transcript and qualifying exam report. Also, the mentor should give a brief evaluation of the student, the student's progress, and should list reasons why the mentor is choosing to support the student for the PhD degree. If the mentor is not present at the exam, which is discouraged, the mentor's pre-exam evaluation should be sent to the committee chair in writing before the exam. The mentor should also state how long the student worked on the research to be presented.

The student will give a 20-minute presentation of their research done to date in the mentor's laboratory. The questions from the committee may address any issues directly related to the document or the oral presentation. Questions should be germane to the research. It should be assumed that basic concepts of Biomedical Engineering were covered in course work. If a mathematical concept is fundamental to the research, this may be explored more deeply. However, general questions about coursework topics should be avoided. Rather, the focus should be on probing the depth of thought about the research problem.

Considering the performance on the oral examination, the written evaluation report, the evaluations from the research mentor, the student's coursework, and the student's GPA, the qualifying examination committee will recommend one of the following:

- Successful: The student passes the qualifying examination.
- Unsuccessful with conditions:
 - The student will be marked successful upon completion of conditions specified by the committee to pass the qualifying exam
 - The student must re-take the examination.
- Unsuccessful: The student fails the examination and is asked to leave the PhD program.

Successful completion of the examination must be documented by using the Qualifying Exam Form, signed by all committee members to indicate the outcome and recommendation for further action and be provided to the Graduate Program Advisor, and approved by the Director of Doctoral Studies for the student's record.

After passing the Qualifying Exam, the student will be invited to submit a [RAC form](#) (Research Advisory Committee). This is available at the McKelvey School of Engineering and BME Website.

First year PhD students in Biomedical Engineering have the opportunity to optionally schedule a practice qualifying exam through the Biomedical Engineering Doctoral Student Council (BMEDC). These mock exams are typically offered and scheduled in the spring semester of your first year of your PhD (before the due date of May 31/October 31) and serve to simulate the formal qualifying process – providing valuable feedback and reducing first-time exam anxiety. This is offered by students, for students.

In-depth details on format, duration, committee composition and preparation will be shared at the Qualifying Exam meeting that is typically scheduled in February/March of the first year of the PhD. BMEDC will schedule practice qualifying exams and will provide more information in early Spring. A sample of the QE metrics can be found at the end of this document.

c. [Research Advisory Committee](#)

Each PhD student will have a Research Advisory Committee (RAC), which must be approved by both the Director of Doctoral Studies and the McKelvey School of Engineering. The RAC should be formed and meet shortly after the student passes the qualifying examination in order to prepare for the thesis proposal. The composition of the RAC may change as the research problem evolves, but any changes to the composition of the RAC must be approved by the BME Director of Graduate Studies and the McKelvey School of Engineering. The committee will be chaired by the student's thesis research mentor. The student's dissertation topic must be approved by the RAC, which occurs upon successful completion of the thesis proposal. The RAC is responsible for monitoring the student's progress

leading up to the thesis defense. The committee must include three to five members who meet the qualifications outlined for the Dissertation Defense Committee.

d. Teaching Expectations

Mentored Teaching Experience (MTE) requirements and options

After passing the qualifying examination but before the thesis defense, PhD students must fulfill a mentored teaching experience (MTE) in a BME or otherwise approved course. Students are required to have a mentored teaching experience for at least one semester, documented by registering for EGS 8010. This is typically completed during the second or third year of doctoral training. Students are required to work an average of 10 hours per week (if the course is one semester long) or 5 hours per week (if the course is 2 semesters long) and may fulfill the MTE requirement in many ways including:

- Giving lectures in undergraduate classes
- Conducting discussion sessions in undergraduate classes
- Conducting recitation sessions in undergraduate classes
- Giving lectures in laboratory courses that introduce or interpret the experiments
- Conducting help sessions in which the graduate student explains the background and methodology of engineering approaches (involving a lesson plan)
- Holding office hours
- Grading assignments or exams

PhD students are required to complete the two McKelvey MTE preparatory training courses (located in Canvas) in order to be eligible for an MTE assignment. Completion of these training courses should occur before the start of the second year of doctoral studies.

e. Thesis Proposal

Following successful completion of the qualifying examination, the student and their thesis research mentor will identify a suitable research problem. The student will then prepare a comprehensive written research proposal that includes a thorough survey of the field, a discussion of unresolved questions, and a clear, tentative definition of the proposed research. Preliminary or feasibility study results – whether unpublished or previously published by the student or their lab – should be incorporated as appropriate.

This proposal, along with the students' CV or resume, must be submitted to the Research Advisory Committee (RAC) at least two weeks prior to the scheduled oral presentation and question session before the committee. This process must be completed by the end of the third year of the doctoral program. Completion of the thesis presentation will be evaluated on a Pass/Fail/Re-Take basis, and this designation will be recorded on the Thesis Proposal/Time Scope Report Form signed by all RAC members.

The format of the written proposal should follow the structure of NIH research proposal and consist of two main components:

- 1) a one-page "Specific Aims" section and
- 2) a "Research Strategy" section not exceeding 6-12 single-spaced pages, using 11-point font and 0.5-inch margins.

The Specific Aims section should define the central hypothesis or question and outline 2-4 major tasks that, if successful, are broad enough to result in one or more peer-reviewed publications. The Research Strategy section should be organized into two parts. The first, “Significance” should explain the importance of the research problem, summarize relevant prior work, and clearly state what aspect of the problem the dissertation will address. The second, “Approach” should describe in detail the experimental or computational work to be performed for each aim, including methods, controls, and sample sizes sufficient to answer the research questions, while also being feasible for completion by a single researcher over a reasonable time frame. This section should also present any supporting preliminary data and describe expected outcomes, potential challenges, and plans for addressing possible pitfalls or complications. Together, these sections should demonstrate a clear and feasible plan for advancing knowledge in the field and preparing the student for successful dissertation research.

f. Annual Reviews

After the qualifying exam, the Annual Progress Report Form must be submitted to the department and the RAC (Research Advisory Committee) before May 31 of every year. Before the form is submitted, the thesis research mentor has the discretion of whether to hold an update meeting with the RAC, as well as to how to hold the meeting. The form can be found here: [Annual Progress Report Form](#)

g. Dissertation Defense Committee and Dissertation Defense

Prior to thesis defense, each PhD student will have a Dissertation Defense Committee (DDC) approved by the Director of Doctoral Studies and the McKelvey School of Engineering. The DDC will be chaired by the thesis research mentor. The DDC must follow all guidelines of the McKelvey School of Engineering and consist of five members (the thesis research mentor plus four other members) that meet the following requirements:

Members 1-3

BME Primary Faculty

<https://bme.wustl.edu/faculty/Pages/default.aspx>

Or

BME Affiliated Faculty

<https://bme.wustl.edu/faculty/Pages/affiliated-faculty.aspx>

Please note: At least ONE of the three members must be a primary BME faculty member

Member 4

Faculty inside or outside the BME program (use links above for faculty inside the program).

Member 5

Faculty outside the BME program or scholar in the private sector or government (they must have a doctoral degree and be research active). Please note that an “Affiliated” BME faculty member may be categorized as either inside or outside the BME program.

Additional requirements:

- i) One of the five members must be from the Washington University School of Medicine (may be an affiliated faculty member, but it is not required)
- ii) Four of the five members must be tenured or tenure-track at Washington University. One of these four may be Emeritus.

After completing the dissertation, the PhD candidate must publicly present and defend their work before the Doctoral Dissertation Committee (DDC) and any additional faculty members deemed necessary. Note that some dissertation mentors have publication requirements prior to granting the student eligible for the dissertation defense; while there is no departmentwide requirement for manuscript publication or submission, we advise all students to consult with their DDC in advance of applying for the defense of the dissertation. As part of the final examination, the DDC must formally approve the dissertation. Please note that the candidate must submit the Title, Scope and Procedure Form to the McKelvey School of Engineering no later than six months before the scheduled defense or by the end of their fourth year, whichever comes first.

E. Degree Requirements and Course Planning

a. Degree Requirements:

To earn a PhD in Biomedical Engineering, students must complete a combination of coursework, research, and scholarly activities. All graduate students are matriculated into the McKelvey School of Engineering (<https://engineering.wustl.edu/>). To be admitted to candidacy, the student must have completed 72 credits (at least 18 credits at WashU (including independent study credits), have an overall GPA of at least 3.0, and pass the qualifying examination. The student must also have finished the training in ethical and responsible conduct of research (RCR training), which can be completed online at <https://research.washu.edu/rcr-training/> (a digital copy of the training completion should be submitted to the Graduate Program Advisor).

b. Course Registration

All graduate students pursuing a degree in the department must register each semester until all degree requirements are met. As a BME PhD student, you must register for courses and/or research credits until the total number of credits required for the degree are earned. PhD students register for nine (9) credits of courses and/or research each semester until 72 credits are completed. Of these, a minimum of 30 must be graded graduate coursework with a GPA of at least 3.0 and a minimum of 24 must be thesis research. The coursework must fulfill the core curriculum. Upon completion of the coursework and research requirements, students will automatically be registered in EGS 9000 Full-Time Doctoral Research (which grants full-time status)

For questions about full-time coursework, enrollment extensions and degree time limit policies students should refer to the [Graduate and Professionals Bulletin](#)

c. Course Selections

Students formulate their course program in consultation with their academic advisor and/or thesis mentor. A core curriculum is required to be completed by all PhD students. This core curriculum requires the following:

- One graduate course in the area of life science (≥ 3 credits)
- One graduate course in the area of mathematics (≥ 3 credits)
- One graduate course in the area of computer science or exemption by proficiency (≥ 3 credits)
- Four BME courses (≥ 12 credits) as specified in the list below

- The BME courses of the core curriculum are four courses from the list below. Other courses may fulfill this requirement and may be added to this list at the discretion of the Doctoral Affairs Committee by petition of the student.
- Graduate level electives (≥ 9 credits)
 - Independent Study – 3 credits
 - Elective coursework – 6 credits (a max of 3 can come from BME 8887)

Please note: New BME courses are created each semester, and existing courses may be offered with less frequency or not offered. Please check the course listings frequently to identify the currently available courses. Courses that fulfill the BME PhD requirements can be found on the official [Graduate and Professionals Bulletin Website](#)

Please note: The Computer Science requirement may also be fulfilled by petition to the Director of Doctoral Studies, documenting at least one undergraduate course in computer programming and an example of the original code written by you, the student. (Note that Mat-lab or Mathematica is not considered a programming language).

Additional courses may fulfill the life science, mathematics, or computer science requirements, dependent upon your background and the discretion of the Doctoral Affairs Committee in consultation with the thesis research mentor.

The normal load for a PhD student is nine to ten credits per semester. Students will be graded for a three-credit course in which they engage in independent study courses; typically, any three-credit course is expected to require nine total hours per week of course related activity. In practice, independent study consists of at least 15-20 hours per week in the laboratory during the period in which classes are in session. This is considered the minimum necessary research activity in order to be successful in the first two semesters. Following the selection of the thesis research mentor, the student should choose the remaining coursework in consultation with the thesis research mentor and/or the academic advisor.

Graduate courses may be transferred in (up to 24 credits) but must be evaluated and approved by the Director of Doctoral Studies and the McKelvey School of Engineering. Courses that were used toward completion of the undergraduate degree cannot be used for securing the PhD degree. The evaluation and approval may occur at any time, but course transfer does not become official until after one year in residence at Washington University. To request credit transfer(s), please provide the following materials to the Director of Doctoral studies in the following format (electronic versions are preferred):

Transfer Course Title - # Credits of Course Type (Equivalent Course at Washington University)

Example: Soft Tissue Biomechanics – 3 Credits of BME core elective (BME 5650 Biosolid Mechanics)

Description and/or syllabi of the course(s) to be transferred.

Include a transcript from the institution where requested courses to be transferred are listed

If there is any course for which you cannot find an equivalent course at Washington University, this course may be transferred as a general elective or into an area determined at the discretion of the Director of Doctoral Studies. Once the credit transfer is approved, the PhD Transfer Credit Request Form must be submitted if the credits to be transferred are from outside of Washington University. The form can be found here: [Transfer Credit Request Form](#)

d. Seminars

Each academic year, the Department of Biomedical Engineering sponsors and participates in a series of seminars by visiting lecturers, Washington University faculty, and students. Participating in these seminars is a valuable part of your graduate program. Some graduate students may choose to enroll in BME 8887 which will provide 1 credit for up to up to three (3) semesters, for additional work related to participation in the seminars. In order to receive 1 credit, students should follow the course syllabus shared with them upon semester start. Students are expected to attend these seminars primarily in person, and at least 3 out of the 6 required seminars must be BME seminars for which sign in or tracking will be mandatory.

e. Publications

While the department strongly encourages students to pursue publications and patent filings as part of their academic and professional development, the department does not require a published manuscript to be eligible to stand for the thesis defense or for program completion. Students should consult with their PI as expectations regarding publication of peer-reviewed journal articles or other publications may vary by research-group and requirements and goals for publications may be determined at the PI's discretion. It is advised that students refer to a Mentor-Mentee compact provided by their PI.

f. Oral Presentation Requirements

PhD students are also required to deliver a minimum of four oral presentations at journal clubs, seminar series, scientific conferences, or retreats. Presentations given as part of the MTE, lab meetings, or thesis committee meetings will not satisfy this requirement, but presentation of an original poster at a scientific conference will contribute to this goal. Three or more 3MT (3 Minute Thesis) will count as one oral presentation. A guest lecture of more than 15 minutes counts as one oral presentation. The student should document the fulfillment of this requirement and submit it to the thesis research mentor for approval. The Graduate program advisor will obtain documentation prior to the thesis defense.

F. Financial Policies:

Graduate students pursuing doctoral research in the department will normally receive support for stipend, tuition remission and health insurance during their enrollment as full-time students. Multiple factors govern continuation of this doctoral student support including documentation of academic achievements, satisfactory performance in research, and contributions to a broad culture of success in doctoral education. Students who are placed on academic suspension will automatically have their doctoral student support canceled, effective with the date of suspension. (For the regulations governing academic probation and suspension, refer to this link: bulletin.wustl.edu/grad/engineering/doctorates/policies).

a. Outside Employment

Holders of fellowships, traineeships and assistantships are required to devote their 100% effort to graduate studies and related research. They are not permitted to engage in any outside employment without special permission of the Director of Doctoral Studies and the Department Chair of Biomedical Engineering.

External Professional Activity for Full-Time PhD Students in the James McKelvey School of Engineering

If approved by their thesis research mentor in writing, doctoral students may engage in limited external professional activity. Student groups that provide consulting services are also included, and acceptance of a project through these organizations must be approved by the thesis research mentor and the Director of Doctoral Studies. Any professional activity associated with a faculty member's personal company or affiliated companies must follow all the guidelines and be reviewed by the university's Conflict of Interest Review Committee (CIRC). Any proposed activity outside of the engagement of research must be disclosed before the activity may begin.

It is expected that external professional activity will be conducted in a way that will not interfere with their research as part of the research assistantship, nor impede in any manner progress toward completion of the doctoral degree. International students will also have to receive approval from the university's Office for International Students and Scholars. The Research Advisory Committee must be informed and routinely updated on all external professional activities. Departments may have additional oversight, guidelines, and restrictions for their own doctoral students' involvement in external professional activity.

All paid professional activities/internships must be approved by the Department and the McKelvey School of Engineering. To begin the approval and application process visit:
engineering.wustl.edu/offices-services/student-services/internship-co-op.html

b. Time Off

PhD and master's students receiving full financial awards (i.e., tuition remission and receiving 12-month funding awards) are expected to commit themselves fully to their academic studies and research throughout the duration of their program, including intersession periods. Intersession periods listed in the University Academic Calendar denote times when classes are not in session.

PhD and master's students receiving full financial awards are permitted to take time off and step away from their research for a cumulative maximum of 10 business days per year (i.e., August 1 – July 31). Absences of PhD students must be scheduled, whenever possible, so as not to impede the progress of an ongoing research project and must be cleared with the research mentor, generally in advance of the absence. Research mentors should make reasonable efforts to accommodate time off requests. Note that presenting at academic and research conferences and program-required activities are considered components of the degree program. The 10 business day maximum does not apply to the scheduled dates of academic or research conferences.

In instances when a student is sick, students are expected to inform their research mentor as soon as possible using the agreed upon communication channel. Absences for illness do not count towards the 10 business day limit above; however, a student who takes repeated or extended absences due to illness may be required to take a formal leave of absence.

Should a student experience the death of an immediate family member (i.e., parent, sibling, parent-in-law, child, or grandparent), they will be allowed three days for bereavement, including the day of the funeral without any loss of funding. The death of an extended family member warrants one day off without loss of funding. Bereavement time does not count toward the 10 business days of time away.

In addition, no student is expected to engage in research or study on university-scheduled holidays. Additional time away may be arranged at the discretion of the research mentor and must be approved in advance. The Director of Graduate Studies and the Graduate Program Advisor must also be consulted.

Some circumstances may require a sustained time period away (i.e., more than 10 business days) from academic studies and research. In these situations, students may request a formal leave of absence for the length of a semester or one year.

In addition to this Time Away Policy, students must heed all Registration and Enrollment Policies (including expectations for maximum time to degree completion) as related to their PhD or master's academic program outlined in the McKelvey School of Engineering Bulletin.

Students and faculty who have questions about this policy should first contact their Director of Graduate Studies or their Graduate Program Advisor. Individuals may also reach out to the Associate Dean for Graduate Programs or the Vice Dean for Graduate Education for additional information.

G. Advising and Mentorship

Each entering doctoral student is assigned to the Director of Doctoral Studies as their faculty advisor and to their research mentor/PI as their Research Advisor. In addition, students are also assigned a Graduate Program Advisor.

Advisor-advisee meetings and communication are integral to a successful PhD journey, fostering a collaborative and supportive environment. Students are expected to respond to advisor communication and requests in a timely manner.

The BME department encourages research mentors to utilize mentoring compacts with new mentees. A mentoring compact for a PhD program serves as a formal agreement that outlines the roles, responsibilities, and expectations of both mentors and mentees in a clear structured manner. This document is designed to foster accountability, transparency, and mutual respect, ensuring a productive and positive mentoring relationship. Typically, a mentoring compact covers several key aspects: communication frequency and methods, research goals and milestones, authorship and intellectual property guidelines, and professional development opportunities. It may also address conflict resolution strategies and the boundaries of the mentor-mentee relationship. By explicitly defining these parameters, the compact helps prevent misunderstandings and sets the stage for a collaborative partnership. Both parties sign off on the agreement, committing to uphold their respective duties and actively engage in the mentoring process. This structured approach supports the academic and professional growth of the mentee while reinforcing the mentor's role in guiding the next generation of scholars. Even if a student's potential mentor doesn't have a formal mentoring compact, students are encouraged to discuss the areas mentioned above with a potential mentor to establish expectations before joining a lab. A McKelvey School of Engineering wide PhD Mentor-Mentee Expectation sheet can be found at the end of this policy book

Students matriculating in fall 2026 and beyond will identify a thesis research mentor upon start of the graduate program. Adjusting to a new research laboratory and thesis research mentor can take time, and there are resources to support this transition. We encourage students to discuss the transition

and progress regularly with their research mentor and seek advice from the Director of Doctoral Studies or Office of Graduate Programs.

H. Good Standing, Probation, and Termination Policies

1. Satisfactory Academic Progress

Satisfactory academic progress for students in the PhD program is monitored by the school as well as the degree program. Failure to maintain satisfactory academic progress may result in a student's immediate dismissal or in their placement on academic probation for the ensuing year. More information on satisfactory academic progress can be found here:

<https://bulletin.wustl.edu/grad/engineering/doctorates/policies/>

2. Probation for Academic Reasons

The purpose of probation is to do the following: (1) to explicitly warn the student of their status; (2) to provide the student with clear guidelines regarding the performance that will be necessary to return to good standing; and (3) to provide the student with reasonable time to meet these expectations. In some cases, the academic probation period can assist with identifying a thesis mentor when considering a change of research project. For more information, please refer to: <https://bulletin.wustl.edu/grad/engineering/doctorates/policies/>

It is important to note that during a probation period, the student status, as well as funding for stipend, tuition remission and health fees is not interrupted.

3. Terminal Master's Pathway.

I. Resources and Student Support

Below is a list of select resources available to students:

- Health and counseling services: <https://studenthealthcenter.washu.edu/>
- Career development resources: <https://careers.washu.edu/channels/phd-postdoctoral-scholars/>
- For in-depth career development support, please find details and contact information here: <https://provost.washu.edu/vpge/graduate-student-experience-and-resources/career-development/>
- Fellowship opportunities: <https://sites.wustl.edu/engineeringresearchtoolkit/studentspostdocs/graduate-student-funding-opportunities-2/>
- Students groups: <https://engineering.washu.edu/offices-services/student-services/student-organizations.html>
- Family, housing, and leave of absence support: <https://registrar.wustl.edu/time-away-leave-of-absence-or-withdrawal/>
- Engineering Academic Calendar: <https://engineering.wustl.edu/academics/academic-calendar.html>
- Engineering Subject Librarian: <https://library.wustl.edu/directory/lauren-todd/>
- Environmental Health & Safety: <https://ehs.wustl.edu/>
- Thesis and Dissertation Submission Procedures: <https://engineering.washu.edu/offices-services/student-services/graduate-student-services/thesis-dissertation-submission.html>
- McKelvey Office of Graduate Programs: <https://engineering.washu.edu/offices-services/student-services/graduate-student-services/index.html>

- Bias Report and Support System: <https://students.wustl.edu/bias-report-support-system/>
- Center for Teaching and Learning: <https://ctl.wustl.edu/>
- The Graduate Center: <https://gradcenter.wustl.edu/>
- Habif Health and Wellness: <https://students.wustl.edu/habif-health-wellness-center/>
- Office of International Student Engagement: <https://internationalstudents.washu.edu/>
- Office of International Students and Scholarships: <https://students.wustl.edu/international-students-scholars/>
- Relationship and Sexual Violence Prevention Center: <https://students.wustl.edu/relationship-sexual-violence-prevention-center/>
- Religious Celebration Calendar: <https://students.wustl.edu/religious-celebration-calendar/>
- Research Infrastructure Services: <https://ris.wustl.edu/>
- Office of Research Integrity & Ethics: <https://research.washu.edu/offices/orie/>

Disability Resources:

Washington University welcomes its diverse population of students, including those with physical, sensory, learning, psychological, and chronic disease–related disabilities. We welcome students with disabilities to our school, to disclose their disability, and to collaborate with us to develop accommodations so that they can experience equitable access in their educational environment. Individuals who anticipate needing accommodations are encouraged to review University’s Disability Resources office website and complete a “New Student Application.” Disability Resources will engage in a confidential and interactive process with the student and other personnel as necessary to determine reasonable accommodations. As accommodations are not applied retroactively and may require time to be implemented, they should be requested in a timely manner. For questions about this process, students can contact Disability Resources via email (disabilityresources@wustl.edu) or phone (314-935-5970). More information can be found here - Disability Resources: <https://students.wustl.edu/disability-resources/>

J. Feedback and Conflict Resolution

A student or faculty mentor bringing forth a concern about mentorship, progress or other issues is encouraged to bring their concern to any one of the program staff members or the director/associate director of doctoral studies; in rare cases, they may bring the concern to the department chair who will direct them to the appropriate and responsible staff member (administrator or advisor). The PhD program team will investigate the concern after first describing planned and recommended steps with the student or faculty mentor. In some cases, the program team may obtain consultation from the Office of Graduate Programs (McKelvey) or other offices of the University. In a majority of cases, the program team has been able to implement processes to address the concern to a satisfactory outcome. In some cases, the concern moves forward to an appropriate University office (e.g., OGP, HR, ORIE, Offices of the Ombuds). If the concern cannot be addressed and either the student or the faculty mentor wishes to interrupt the mentor-mentee relationship (unilateral or bilateral decision), we support that decision in a majority of cases. In these cases, the student has been given appropriate time to find a new research mentor with departmental support over a 90-day period.

- More information, including a link to an anonymous form, can be found here: <https://students.washu.edu/contact-us/student-feedback-complaint-form/>

K. Maintenance and Continuous Improvement

If you have any questions or suggestions for this policy book, please contact Miri Voigt (Graduate Program Coordinator). The policy book is subject to change.

If you prefer sending your feedback about the policy book anonymously, please refer to this Survey:
https://wustl.az1.qualtrics.com/jfe/form/SV_0PADILMJGX9R1Ns

L. Templates and Appendices

In addition to links to the required forms in Section D: Program Milestones, students may also find these helpful:

Leave of absence:

<https://powerforms.docusign.net/68431745-cf8f-414d-8115-705520f3bf87?env=na3&acct=600054d6-8634-4a0d-9bc7-6aa8c5c97d49&accountId=600054d6-8634-4a0d-9bc7-6aa8c5c97d49>

Reinstatement request:

<https://powerforms.docusign.net/3265fe09-076e-468e-9dd5-a1960b7a1370?env=na3&acct=600054d6-8634-4a0d-9bc7-6aa8c5c97d49&accountId=600054d6-8634-4a0d-9bc7-6aa8c5c97d49>

Mentoring resources:

<https://crtc.wustl.edu/otg/mentoring-resources/>

Office of the University Registrar:

<https://registrar.washu.edu/>

**BME PHD
QUALIFYING EXAM METRICS**

Student Name: _____

In scoring the metrics below, consider how the student's talk would be perceived if presented at a national conference.

Characteristic	Not Present	Emerging	Expected	Exceeds Expectations
Depth of knowledge of the relevant literature				
Explanation and understanding of significance of the problem				
Underlying hypothesis/objective clearly stated				
Innovation/novelty of the project clearly communicated				
Depth of understanding of techniques used in the project/field				
Ability to propose alternative experiments				
Ability to propose follow-up experiments				
Ability to communicate clearly: written report				
Ability to communicate clearly: oral presentation				
Awareness of relative quality of results				
Ratio of useful or publishable results to time spent on the project				
Intellectual curiosity				

Considering the performance on the oral examination, the written report, the student's coursework, and the student's GPA, the qualifying examination committee will recommend that the exam is:

- Successful: The student passes the qualifying exam.
- Unsuccessful with conditions:
 - Will be marked successful upon completion of conditions specified by the committee to pass the qualifying exam.
 - The student must retake the examination.
- Unsuccessful: The student fails the exam and is asked to leave the PhD program.

McKelvey PhD Mentee and Mentor Expectations

Value Statement of Faculty who Mentor McKelvey PhD Studentsⁱ

The following statements represent the groundwork for successful relationships between faculty who mentor McKelvey PhD students and these PhD mentees. All faculty who mentor McKelvey PhD students commit to:

- Participating, advising, and supporting PhD mentees' academic, research, and career exploration throughout the phases of the PhD experience.
- Establishing and reinforcing clear expectations for PhD mentees in all phases of their academic journey. McKelvey PhD mentors understand the policies of the academic program and engage in information seeking with the Director of Graduate Academic Success or McKelvey Office of Graduate Programs as necessary.
- Developing effective communication channels for constructive feedback and maintaining consistent communication with PhD mentees about degree progression, research expectations, and professional development.
- Developing strategies and approaches for assessing PhD mentees' understanding of the academic and research components of their degree.
- Fostering PhD mentees' independence in their academic and research experiences by creating an environment that establishes trust, encourages creativity, and opens opportunities for success to allow students to enhance students' confidence in meeting their goals.
- Addressing and discussing the importance of responsible and ethical research practices and associated university and professional standards and policies.
- Maintaining an environment that is inclusive, equitable, and respectful wherein new ideas and perspectives are embraced.
- Engaging in explicit and regular conversations with PhD mentees about the expectations for the level of productivity in the lab and in research.

Common Expectations for McKelvey PhD Mentees

All McKelvey PhD mentees are expected to engage in the following for the duration of their academic and research experience:

- Remaining aware of program requirements and expectations and participating actively throughout the PhD program.
- Maintaining an open line of communication with your mentor. Meeting regularly with your mentor, communicating progress, challenges, and changes in a prepared and professional manner.
- Taking ownership for the PhD research project and conducting the research responsibly and ethically in accordance with all university and professional standards and expectations.

- Pursuing opportunities for professional skill development within and outside of the standard curriculum and exploring career options by utilizing mentors and other WashU resources.

Additionally, faculty who mentor McKelvey PhD students and the McKelvey PhD mentees should engage in discussion about the specifics of their mentoring relationship. Mentors and mentees are encouraged to revisit these expectations based on the student's progression from pre-candidacy to post-candidacy and as circumstances change.

Examples may include (but are not limited to):

- Meeting frequency, format, and duration
- Expectations for being present in the lab including days and time of day
- Preferred communication methods and expected response times
- Mutually acceptable feedback timelines for drafts and proposals
- Additional funding opportunities (e.g., conferences)
- Professional development priorities
- Short-term and long-term career goals

ⁱ These foundational statements are drawn from the Center for the Improvement of Mentored Experiences in Research (CIMER) curriculum.