

2021

Biomedical Engineering  
Graduate Program Handbook

Graduate Program in  
Biomedical Engineering  
Department of Biomedical  
Engineering  
Binghamton University  
State University of New York

[http://www.binghamton.edu/bio  
medical-engineering/](http://www.binghamton.edu/bio<br/>medical-engineering/)

## Table of Contents

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1. Overview of the Program	3
2. Admission & Degree Requirements	4
3. Detailed Steps for PhD Students	10
4. New Students: Things to Do First	16
5. Other Useful Links	18
6. Department Facilities	18
7. Contacts	20

## 1. Overview of the Program

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The mission of the Biomedical Engineering (BME) Department is to advance human health and aid in the economic development of the region, state, and country by providing state-of-the-art, accessible, and affordable education and professional training in biomedical science and engineering. Our faculty is composed of exceptional professors and internationally renowned researchers that are accessible and supportive of students' learning needs. Specifically, the department strives to train the next generation of biomedical scientists and engineers, cultivate leaders, and foster entrepreneurship to advance human health in a new era of medicine. This will be accomplished through the integration of engineering principles, physical sciences, computer sciences, medical science, and biology toward an improved understanding of biophysical phenomena, healthcare systems, disease prevention, diagnostics, treatment, and data management. Recognizing that our students come to us from all over the world, faculty and staff are devoted to maintaining a diverse and culturally aware learning atmosphere. We offer various financial assistance options to both master's and doctoral students that include graduate fellowships, along with research and teaching assistantships. The BME Department offers three graduate degree options:

- Doctor of Philosophy (PhD)
- Master of Science (MS)
- Combined BS/MS 4+1 Accelerated Degree

### Biomedical Engineering

The goal of the BME graduate program is to prepare students for careers in industry, business, academia, or research lab environments by offering a flexible program of coursework and mentoring that enables students to engage in creative and independent research on a cutting-edge research topic. The program is designed to prepare students for leadership positions in biomedical research, education, and entrepreneurship and for success in a global environment.

Typically, a BS/MS accelerated degree is completed in 1 year. This degree option is available only to Binghamton University Biomedical Engineering undergraduate students. A master's degree is completed in 1.5 to 2.5 years. Students complete the core curriculum and electives, and undertake thesis research or a termination project. Doctoral students additionally conduct in-depth research where they demonstrate a contribution to the advancement of knowledge in their field of study. The typical time to earn a doctoral degree is 3 to ~~6~~5 years.

The program provides the student with access to considerable resources, including:

- i. Laboratory facilities equipped with state-of-the-art equipment for 3D tissue and organ bioprinting, advanced biomanufacturing, stem cell and regenerative medicine, point-of-care testing and diagnosis, implantable biosensors, biomaterials, biomechanics, nanomedicine, nanobiotechnology, and organ-on-a-chip technology.
- ii. Computing clusters for high-speed data analysis, modeling and simulation.
- iii. The Small Scale Systems Integration and Packaging (S3IP) Center, which includes the Analytical and Diagnostics Laboratory for materials testing and micro- and nano-systems engineering.
- iv. The Center of Biomanufacturing for Regenerative Medicine.
- v. The Health Science Core Facility.

Students enrolled in the program also have the opportunity to collaborate with clinicians practicing at nearby medical centers, such as UHS Wilson Medical Center, UHS Binghamton General Hospital, Upstate Medical Center, Bassett Healthcare Center, and Guthrie Health Center. Students may also have opportunities to work on industry-funded projects and gain valuable experience with industrial-academic collaborative research that could lead to internship and full-time positions.

## **2. MS/PhD Requirements for Admission**

The BME program accepts students at both the BS and MS levels. The primary criteria for admission includes an academic record of excellence, the appropriate knowledge base to permit enrollment in the core courses, and an interest in contributing to the field. All admitted students should complete the core coursework, although students entering the program with a master's degree may substitute equivalent courses if appropriately justified; permission will be granted by the Director of Graduate Studies on a case-by-case basis. Prospective graduate students should visit the Graduate School website to apply online.

The application package for graduate admission includes official transcript(s), test scores from the Graduate Record Examination (GRE), at least two letters of recommendation, a resume, and a one-page statement indicating why the applicant wishes to pursue a graduate degree in biomedical engineering at Binghamton University. International students should also provide proof of English proficiency (such as TOEFL, IELTS, or PTE Academic scores) and immigration and financial documentation. See the Graduate School website for more information about the additional requirements for international students.

Applications are considered for both spring and fall semesters and are reviewed on a rolling basis. Recommended submission dates for fall semester admission: Apply before January 15 for funding consideration or April 1 for regular admission. Recommended

submission dates for spring semester admission: Apply before October 15 for funding consideration or November 15 for regular admission.

Graduate students who are well qualified may receive assistantships, such as Teaching Assistantships (TA), Research Project Assistantships (RPA) or Graduate Assistantships (GA). Funding decisions are decided among the admitted pool of applicants in the spring semester for fall admissions, and as needed for spring admissions. Domestic and international MS and PhD students are considered for funding.

### BS/MS 4+1 Accelerated Program Admission Process

1. Complete the department application your junior year.
  - If your GPA is 3.5 or above, complete the department application and submit to the BME graduate program director (Guy German).
  - If your GPA is 3.0 - 3.5, complete the department application, obtain two of your professors' signatures, and submit the form
2. Complete the graduate school application your senior year and submit all required application materials.

During your senior year or when you have a minimum of 88 undergraduate credits and at least a 3.0 GPA, you will formally apply to the Graduate School. We suggest that you begin the application process at least one month before the BME program's recommended application deadline (April 1). The only document needed for the accelerated program application is an unofficial transcript. The GRE and letters of recommendation are waived for Watson School applicants.

### Online Application

Access BU Brain via the myBinghamton Portal and complete the accelerated degree program application. Choose the "Accelerated Graduate Degree Application for Admission," which is located in the "Home" tab. Answer the presented questions, then submit the application.

### International Process

If you are an international student who holds or hopes to obtain, an F-1 or J-1 visa, you must submit the International Student Financial Statement (ISFS) form and financial documentation. For more information, review the additional admission requirements for international students.

3. Pay the application fee.

After the Graduate School receives your application, you will be able to pay your application fee. The Graduate School only reviews applications for which the \$75 (USD)

non-refundable accelerated degree program application fee was successfully paid. Log into QuikPay with your Binghamton University user ID and computer account password to pay your application fee. You can use a Visa, MasterCard, Discover or American Express credit card. Your credit card bill serves as your receipt.

We are happy to be able to grant application fee waivers to CSTEP, EOP, HEOP, LSAMP Program, Project 1000, SEEK Program or TRIO Program (McNair Scholars Program, Student Support Services, Upward Bound, etc.) students and to GEM Fellowship applicants. If you are eligible, read, complete and submit the Application Fee Waiver Form. The required documents should be emailed to [gradadmission@binghamton.edu](mailto:gradadmission@binghamton.edu).

We are also happy to be able to grant application fee waivers to United States Armed Forces veterans and active duty service members. If you are eligible, read, complete and submit the Application Fee Waiver Form - U.S. Armed Forces. The required documents should be emailed to [gradadmission@binghamton.edu](mailto:gradadmission@binghamton.edu).

#### 4. Receive your admission decision.

Once an admission decision has been made, you will receive an e-mail from the Graduate School. If you have been accepted, you will also receive an admission letter.

#### 5. If accepted, confirm your intent to continue at Binghamton University.

Watson School students do not need to pay the \$100 deposit fee to confirm enrollment.

Confirm your intent to continue as a graduate student by following the instructions in your admission email and letter. After you confirm your intent to continue, your student status will transition to graduate level after Binghamton University officially awards your bachelor's degree. Then, before the semester begins, take the steps outlined in your admission email and letter. See the New Student webpage for general information for new graduate students.

#### Core Courses

The core courses are designed to provide all BME graduate students with a common knowledge base. This includes principles of biomedical engineering, physiological and cellular systems, mathematical analysis, statistics, and experimental design. The core courses are:

BME 533: Human Physiology (3 credits)

BME 572: Experimental Design and Statistical Analysis (3 credits)

BME 590: Graduate Seminar (1 credit)

BME 683: Emerging Methods and Applications in BME (3 credits)  
BME 690: Advanced Graduate Seminar & Writing in BME (2 credits)

A core course can be substituted by a BME elective if appropriately justified by the student's academic background. Such requests will be evaluated by the student's guidance committee and the Director of Graduate Studies.

### Research

In the BME graduate program, students often register for one or more credit hours of research each semester.

BME 598: Project

BME 599: Thesis

BME 698. Pre-Dissertation Research

BME 699. Dissertation Research

### Elective Courses

Elective courses are aimed at preparing the students for careers in research, industry, or government, and at providing students with an introduction to the broader aspects of biomedical engineering. Students can take elective courses from either BME or other disciplines in engineering or science, if approved by the student's guidance committee and the Director of Graduate Studies. The BME Director of Graduate Studies generates a list of approved electives every semester and this list is voted on and approved by the BME faculty. Up to two of the electives, or 8 out of the 30 required credits, can be outside of engineering.

### Evaluation

The program has been designed to be relatively flexible, allowing students to orient their research in an area of interest as they progress in their training. Students may select elective coursework from a wide variety of courses available in the BME or other graduate programs, and take these courses at the appropriate time. To provide such flexibility and at the same time ensure adequate monitoring of progress, students go through a sequence of evaluations. For the MS thesis students, this involves identification of a primary research advisor early in the program to help guide them up to and through the MS thesis defense. For the PhD students, this includes the identification of a primary research advisor and guidance committee, fulfillment of a learning contract, completion of a comprehensive exam, submission and defense of a dissertation proposal in an open colloquium and submission and oral defense of a dissertation. Timing and content of each of these evaluations are described below. The minimum requirements are summarized below.

### Minimum Requirements for Graduation

A student must maintain at least a B average in all graduate coursework and, depending upon the degree sought, minimum requirements include coursework, fulfillment of a learning contract, demonstrating an ability to teach, passing a comprehensive examination, and preparing a master's thesis and/or a doctoral dissertation with oral defense. The minimum requirements for graduation with a doctoral degree will be based on the student's highest degree at the time of matriculation.

<b><i>Degree</i></b>	<b><i>Minimum Requirements</i></b>
Accelerated MS degree	30 credits of coursework, including: <ul style="list-style-type: none"> <li>● Core coursework (12 credits)</li> <li>● Graded elective coursework (12-15 credits)</li> <li>● BME 599: Thesis (6 credits) or BME 598: Project (3 credits)</li> <li>● Submit a termination project or a master's thesis with oral defense</li> </ul> In the student's senior year he or she must take at least two or up to three 500-level graduate courses. We suggest BME 533: Human Physiology in Fall and a BME elective in Spring.
MS degree, Termination project option	30 credits of coursework, including: <ul style="list-style-type: none"> <li>● Core coursework (12 credits)</li> <li>● Graded elective coursework (15 credits)</li> <li>● BME 598: Project (3 credits)</li> <li>● Submit a termination project</li> </ul>
MS degree, Thesis option	30 credits of coursework, including: <ul style="list-style-type: none"> <li>● Core coursework (12 credits)</li> <li>● Graded elective coursework (12 credits)</li> <li>● BME 599: Thesis (6 credits)</li> <li>● Submit a master's thesis with oral defense</li> </ul>
Doctoral degree, begin with a MS degree in Biomedical Engineering or closely related discipline from	24 credits of graduate study, including: <ul style="list-style-type: none"> <li>● Core coursework (12 credits)</li> <li>● Graded elective coursework with at least two 600-level Biomedical Engineering courses closely related to the PhD research area (12 credits)</li> <li>● No more than 6 credits of BME 697: Independent Study can be counted toward the required 24</li> </ul>

a different institution	credits of graduate study. <ul style="list-style-type: none"> <li>● Fulfillment of a learning contract</li> <li>● Submission of annual progress reports</li> <li>● Pass a comprehensive examination</li> <li>● Demonstrate an ability to teach</li> <li>● Submit and defend a dissertation proposal</li> <li>● Submit and defend a dissertation</li> </ul>
Doctoral degree, begin with a MS degree from the Binghamton University Biomedical Engineering Department	6 credits of graduate study, including: <ul style="list-style-type: none"> <li>● At least two 600-level Biomedical Engineering courses closely related to the PhD research area (6 credits), for a minimum of 6 credits beyond the 24 credit residence requirement.</li> <li>● No more than 6 credits of BME 697: Independent Study can be counted toward the required 24 credits of graduate study.</li> <li>● Fulfillment of a learning contract</li> <li>● Submission of annual progress reports</li> <li>● Pass a comprehensive examination</li> <li>● Demonstrate an ability to teach</li> <li>● Submit and defend a dissertation proposal</li> <li>● Submit and defend a dissertation</li> </ul>
Doctoral degree, begin with a BS or BA degree	<del>60</del> 30 credits of graduate study, including: <ul style="list-style-type: none"> <li>● Core coursework (12 credits)</li> <li>● Graded elective coursework with at least two 600-level Biomedical Engineering courses closely related to the PhD research area (18 credits)</li> <li>● No more than 6 credits of BME 697: Independent Study can be counted toward the required 30 credits of graduate study.</li> <li>● Fulfillment of a learning contract</li> <li>● Submission of annual progress reports</li> <li>● Pass a comprehensive examination</li> <li>● Demonstrate an ability to teach</li> <li>● Submit and defend a dissertation proposal</li> <li>● Submit and defend a dissertation</li> </ul>

### 3. Detailed Steps for PhD Students

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#### Selection of Principal Advisor

The student/advisor selection procedure begins with the department's admission requirement that a professor be available and willing to work with the prospective student. Therefore, it is suggested that prior to applying, all prospective students contact faculty members with whom they share mutual research interest. It is essential that the prospective student and the potential principal advisor have open, honest discussions concerning the expectations of each relative to the other before a final selection is made.

Circumstances may arise in which the principal advisor has not been selected prior to admission to the department's graduate program. In such cases, the Graduate Program Director will serve as the student's principal advisor until a permanent principal advisor is selected. This should occur no later than the end of the first semester of graduate study.

Remember, however, that the selection process is mutual; that is, the professor also chooses the students with whom he or she wishes to work. In addition, the interest of the principal advisor is, by necessity, often driven by research contracts. Thus, the research area chosen by the student is expected to fit into the overall research program of the advisor. If the student wishes to change principal advisors, the request should be made both orally and in written form to the Graduate Program Director and the Department Chair for approval. The Graduate Program Director and the Department Chair will consult with all parties involved before establishing the conditions, if any, under which the change may be made. Similarly, the student should consult with the Graduate Program Director and the Department Chair in situations where his or her principal advisor is unable to continue to serve in that capacity.

#### Guidance Committee

Each student's program is guided by a principal advisor and a Guidance Committee. Their purpose is to give continuity of direction and counsel and provide intellectual stimulation from the earliest days of residency through the completion of the doctorate. The principal advisor, in consultation with the student, selects the Guidance Committee, subject to review and approval by the Graduate Program Director and the Department Chair. Once the Guidance Committee has been selected, the Principal Advisor/Guidance Committee form must be submitted to the Graduate Program Director, the Department Chair and the Graduate School. The form is available from the Watson Student Advising website: <https://www.binghamton.edu/watson/student-services/advising/grad-forms/Principal-Advisor-Guidance-Committee.pdf>

The Guidance Committee provides advice to the student and specifically sets requirements within the graduate program, the Graduate School, and University regulations, which the student must meet in pursuit of their doctorate degree. The student has the responsibility of interacting with the Guidance Committee and keeping them informed of his or her progress. The Guidance Committee has a minimum of four members. The principal advisor serves as the Chair of the Committee. At least two Committee members must be selected from the Biomedical Engineering graduate program, and at least two departments must be represented within the Committee. Students may propose faculty from other universities or professionals from outside academia, but must obtain Graduate School approval. The guidance committee advises the student and evaluates and certifies the student's performance throughout the program of study and research.

All decisions of the Guidance Committee are made by majority vote. The principal advisor is responsible for transmitting Guidance Committee decisions to the Graduate Program Director and the Watson School Graduate Studies Committee.

In addition to advising and program planning, the Guidance Committee is also involved with the development and administration of the comprehensive exam.

The Guidance Committee must be kept at its full complement throughout the graduate career of the individual student. In the event of a vacancy on the Committee (occasioned by resignation, faculty leave, or inability to serve), an appropriate replacement must be made prior to the making of any Committee decision. In the case of resignation, the principal advisor must submit a new Principal Advisor/Guidance Committee form to add a new member.

### Learning Contract

During the first semester, the student should consult with the principal advisor and the Guidance Committee and develop a Learning Contract that should describe:

- Major Area of Research (Description of research area. Typically 2-3 paragraphs.)
- Relevant Prior Graduate Coursework (Prior coursework to be used toward PhD degree. List course names and number of credits for each.)
- Course Requirements to be Completed (Current and future coursework to be used toward PhD degree. List course names and number of credits for each.)
- Comprehensive Examination (Brief description of areas in which the student is to be examined, and the form the examination will take.)
- Reading List (List of books and/or other publications to be used to prepare for the Comprehensive Examination, with titles and authors. The nature and specifics of this list are dependent on the department and guidance committee.)

- Teaching Requirement (Description of how teaching proficiency requirement will be met.)
- Progress Evaluation Procedures (Describe periodic evaluation for meeting the goals of the learning contract.)
- Colloquium and Prospectus (Brief description of how and when the colloquium and prospectus requirements will be met.)

A sample format of a Learning Contract (called “Learning Contract” in other Departments) is available from the Watson Student Advising website mentioned above:

[https://www.binghamton.edu/watson/student-services/advising/grad-forms/Learning%20Contract\\_Recommended%20Format.pdf](https://www.binghamton.edu/watson/student-services/advising/grad-forms/Learning%20Contract_Recommended%20Format.pdf)

The Learning Contract must be approved by the student’s Guidance Committee, who will in turn submit the plan to the Graduate Program Director for review and placement in the student’s records.

Coursework should be related to the dissertation problem area and aid in developing a thorough understanding of the basic concepts pertinent to the thesis problem. Changes to the plan are subject to approval by the principal advisor and the Guidance Committee. The Learning Contract is to be completed during the first semester of graduate study and is considered to be the mutual responsibility of the student and the principal advisor.

### Comprehensive Examination

The written and oral comprehensive examinations measure a candidate’s potential competency in his or her area of specialization sufficient to understand and advance the current state of the art research. After completing approximately one-two years of graduate study (no later than three years after the admission to the BME PhD program), the prospective candidate should take the comprehensive examination. The exam will be developed and administered by the student’s Guidance Committee. The format of the exam will be determined by the Guidance Committee. Students may retake a failed comprehensive exam once, contingent upon approval of the student’s Guidance Committee, the Graduate Program Director and the Department Chair. A student who fails the comprehensive examination twice will be terminated from the program. Under no circumstances will a student be allowed to take the comprehensive examination more than twice. Upon satisfactorily completing these examinations and approval of the Guidance Committee, the student will be admitted to candidacy and proceed toward completion of the remaining requirements for the degree.

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### Proficiency in Teaching

In addition to the coursework and research, doctoral candidates must demonstrate proficiency in teaching. Doctoral students must meet a teaching requirement in one of the following ways:

- Serve as a teaching assistant (TA) for a BME course at Binghamton University under the supervision of a faculty member.
- Make at least 6 public presentations. The following presentations are considered acceptable public presentations:
  - Prospectus presentation
  - Dissertation defense presentation
  - Any public presentation that is announced at least one week in advance
  - Lecture (including guest lectures) given to students in a course
  - Research presentation at a technical conference, symposium, or workshop

### Residence Requirement

All PhD students are required to have a minimum of 24 graded credit hours from Binghamton University.

### Language Requirement

There is no formal language requirement, however, individual students may have a language requirement specified in the Learning Contract.

### Admission to Candidacy

Upon satisfactory completion of all the requirements above (fulfillment of the Learning Contract, passing the comprehensive examination, and satisfying the teaching requirements), the student will be officially admitted to candidacy for the doctorate in biomedical engineering. The student's Guidance Committee should submit the following form to the Graduate Program Director:

[https://www.binghamton.edu/grad-school/docs-forms/recommendation\\_for\\_admission\\_to\\_candidacy\\_for\\_doctoral\\_degree\\_abd\\_status.pdf](https://www.binghamton.edu/grad-school/docs-forms/recommendation_for_admission_to_candidacy_for_doctoral_degree_abd_status.pdf)

In exceptional cases, with approval of the Graduate Program Director and the Department Chair, some of the requirements may be satisfied by means of previous academic experience, publications or other evidence of competence.

Once the student is admitted to candidacy, his or her status will become All-But-Dissertation (ABD). Two semesters normally elapse between admission to candidacy and the granting of the doctoral degree. The student must complete all the requirements for the degree, including the submission and defense of the dissertation, within 5 years after admission to candidacy.

### Prospectus and Colloquium (Dissertation Proposal)

Within 6 months after being admitted to candidacy, the student should submit a written proposal (“prospectus”) for his or her dissertation research to the Dissertation Committee and present it orally (“colloquium”). This proposal should include and will be evaluated based on:

- Specific aims with hypothesis
- Background and motivation
- Preliminary studies
- Proposed research
- Detailed research plan
- Originality and significance
- Expected outcomes
- Timeline

The colloquium should take place not more than two weeks after the submission of the prospectus.

Depending upon the Dissertation Committee’s evaluation, revisions of the research plan may be requested, conditional approval may be granted pending some modifications, or full approval may be granted. If revisions are requested, the student should correct the thesis proposal and present it again to the Committee. A maximum of one semester is allotted to present a revised proposal.

### Dissertation Submission and Defense

Upon completion of the dissertation research, the student should submit his or her dissertation to the Dissertation Committee for evaluation. It should be submitted to the Committee only when the student’s principal advisor judges that the work is ready for evaluation. The chair of the Committee will inform the outside examiner of the progress and will provide him/her a copy of the dissertation once submitted.

Not later than one month after the submission of the dissertation, the student will defend it orally in an open colloquium setting. It will be open to the general public and should be advertised to the University community at least one week before it takes place. A closed session will follow the oral presentation where the student will be questioned by the Dissertation Committee members.

An evaluation will be handed to the student after the Committee debate in private. The dissertation may be accepted as is, accepted conditionally with required modifications, or rejected. If accepted conditionally with required modifications, the principal advisor will determine the period of time allotted for the modifications. The decision to

recommend for a doctoral degree must be made by unanimous votes of the Dissertation Committee.

If the dissertation is rejected, the Graduate Program Director and the Department Chair will study the case and will meet the student and the Dissertation Committee to determine a new course of action, which may include forming a new Dissertation Committee.

Upon satisfactory dissertation defense, the Graduate Program Director will submit a signed copy of the Recommendation of Award of Doctoral Degree to the Watson Student Advising Office. After verification of completion of the graduate study, the Recommendation will be forwarded to the Graduate School.

#### Annual Evaluation and Progress Report

Each year the Department's Graduate Studies Committee, in consultation with the principal advisor, evaluates the progress of each graduate student with regard to individual performance and accomplishments. Early in the calendar year (usually in January) the student should schedule a time with the Guidance Committee to discuss the state of his or her research. The student needs to submit a graduate student progress report to show the requirements met and the percentages of coursework and research completed. The principal advisor will sign the report, make some comments for the annual evaluation, and write a job description that outlines the responsibilities of the student for the coming year. The Graduate Studies Committee will review the documents and make a report to the Graduate Program Director and the Department Chair.

#### 4. New Students: Things to Do First

Welcome to Binghamton University! There are a number of things you need to do before and upon your arrival. Read the following instructions carefully and meet all the requirements.

□ **Read the “New Students” section on the Graduate School website.**

<http://www.binghamton.edu/grad-school/resources/support-success/>

- Activate BMail account.
  - NOTE: All official communications will be sent only to your BMail address. It is *your* responsibility to check your BMail account often.
- Activate your computer account.
- Read and accept the Code of Conduct.
- Obtain your BU Student ID card.
- Confirm your enrollment.

□ **Attend required online orientation.**

□ **Attend TA and/or international student orientation (if applicable).**

□ **Fulfill mandatory health requirements.**

<http://www.binghamton.edu/health/new-students.html>

<http://www.binghamton.edu/health/health-insurance/>

- Health insurance is required for all international graduate students.
- Domestic graduate students are not required to purchase health insurance but are strongly recommended to do so.

□ **Register your vehicle and obtain a parking permit (if you drive to campus).**

<https://www.binghamton.edu/services/transportation-and-parking/parking/index.html>

□ **For Teaching Assistant (TA)/Research Assistant (RA)/Graduate Assistant (GA): Contact Human Resources regarding required forms and health insurance plans.**

<http://www.binghamton.edu/human-resources/>

□ **Submit “Intake Form” to the Graduate Program Director.**

□ **For Thesis-option MS students and PhD students: Identify a primary research advisor within the BME program and form a Guidance Committee.**

□ **For PhD students: Work with your Guidance Committee to develop a Learning Contract.**

PhD students will need to submit the following three forms to the Watson School Student Advising Office through the Graduate Program Director:

- Principal Advisor/Guidance Committee form
- Statement of PhD Research Interest form
- Learning Contract form (this is called “Learning Contract” in the Department of Biomedical Engineering)

These forms are available from:

<https://www.binghamton.edu/watson/student-services/advising/grad-forms.html>

□ **Discuss the courses you will take during this upcoming semester with the Graduate Program Director and/or your advisor.**

□ **Register to the courses before the semester begins!**

<http://bubrain.binghamton.edu/>

□ **For students who will work in lab space: Get required lab safety training.**

<https://www.binghamton.edu/ehs/>

Once you completed required lab safety training, contact Danny Goldstein to have your BU ID card programmed to have access to the lab space.

□ **For students who will work on projects (including class projects) that involve human subjects: Get trained and certified to conduct human subject research.**

<http://humansubjects.binghamton.edu/>

□ **For international students: Check the ISSS website and follow all regulations.**

<http://issb.binghamton.edu/>

□ **For students with disabilities: Contact Services for Students with Disabilities (SSD).**

<http://ssd.binghamton.edu/>

## 5. Other Useful Links

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### **Biomedical Engineering (BME) graduate program**

<https://www.binghamton.edu/biomedical-engineering/graduate/index.html>

### **Graduate School**

<http://www.binghamton.edu/grad-school/>

### **Graduate School Manual**

<http://www.binghamton.edu/grad-school/resources/policies-procedures/manual/>

### **University Bulletin**

<http://www.binghamton.edu:8080/exist/rest/bulletin/2017-2018/index.html>

### **Watson School Graduate Advising**

<https://www.binghamton.edu/watson/student-services/advising/graduate.html>

### **Watson School Academic Honesty Code**

<https://www.binghamton.edu/watson/about/honesty-policy.pdf>

### **Information Technology Services**

<http://www.binghamton.edu/its/>

### **Information for Current Students**

<https://www.binghamton.edu/about/current-students.html>

## 6. Department Facilities

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### **Card Access**

The Department of Biomedical Engineering is located on the second floor of Biotechnology Building, which is part of the Innovative Technologies Complex (ITC). The Building and the Department area are access restricted (except during normal business hours). If you need access to the Building and the Department, contact Danny Goldstein and have your BU ID Card programmed.

### **Graduate Students' Office Space**

The Department of Biomedical Engineering has limited office spaces for graduate students. They are available for PhD (and some MS) students who work on research projects under the supervision of BME faculty. If you need an office space, first talk to your advisor as some research laboratories have graduate student office space. If your advisor does not have space, submit an office request to the Graduate Program Director. Space allocations are reviewed and updated every semester.

Students who have office spaces will also receive individual mailboxes located in the open student work area (East).

For other students, Pods computers are available in the open student work area (West).

### **Printing, Photocopying and Scanning**

The Department's printer/scanner/photocopier is to be used for Departmental business only.

### **Kitchen**

The Department has a kitchen with a refrigerator, a microwave, a coffee maker and a small eat-in table and chairs. This kitchen is a shared space used by not only people in our Department but also by others, so you must use the area respectfully and responsibly. Make sure you follow all the instructions posted in the kitchen, and clean up the area after you finish using it.

## 7. Contacts

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