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PURPOSE OF THIS HANDBOOK

This handbook outlines the policies and procedures of the Biomedical Engineering department’s (BMED) graduate program. Topics covered include the structure of the department, expectations of faculty and students, the admission process, new and current student information, registration, finances, degree requirements and graduation information, campus resources, and institutional processes.

The student information in this handbook is intended for those in all of the various academic programs supported by the department. However, some details such as curriculum are primarily focused on the Biomedical Engineering (BME) program. Reference points for students in the other majors are highlighted under Associated Degree Programs as needed.

This handbook is intended as a supplement to the General Catalogs and Faculty Handbooks of Georgia Tech and Emory University. It does not replace nor supersede the materials in those resources. All BME students are responsible for understanding and complying with all policies and procedures of both Georgia Tech and Emory. In the event of a conflict in interpretation of policies or procedures, the interpretation of the General Catalogs shall prevail. Although students are encouraged to seek advice from faculty advisors and the BMED Academic Office, it is ultimately the student’s responsibility to meet the rules and regulations of the institutions for degree completion.

See the Appendix sections for various specific resources, including faculty and staff contact information, websites, and sample forms.

Questions should be directed primarily to the Graduate Program Coordinator in the BMED Academic Office. The Associate Chair for Graduate Studies, Director of Graduate Training, and directors of the associated degree programs are also key resources.
OVERVIEW OF THE DEPARTMENT

The Wallace H. Coulter Department of Biomedical Engineering (BMED) is a joint effort between The Georgia Institute of Technology (GT) and Emory University (EU). The department is a unique partnership between a public and a private institution. The vision is to provide superb education and research in biomedical engineering with an emphasis on applications to human health.

The department offers several graduate level programs (also referred to as majors). The Doctor of Philosophy (PhD) program in Biomedical Engineering, often called the BME Program, is currently ranked second in the country by U.S. News & World Reports. Graduates of this program receive degrees jointly conferred by Georgia Tech and Emory. A second joint program, added in 2009, offers a PhD degree conferred by Georgia Tech, Emory, and Peking University (China). The other programs offered—Bioengineering, Bioinformatics, Computational Science & Engineering, and Robotics—are interdisciplinary programs with various departments at Georgia Tech. Graduates of these programs receive degrees conferred by Georgia Tech.

The department’s faculty has identified the following six critical areas of research where our combined strengths are the foundation of strong research programs.

- Biomaterials and Regenerative Medicine
- Cardiovascular Biology and Biomechanics
- Cellular and Biomolecular Engineering
- Integrative Biosystems
- Medical Imaging
- Neuroengineering

Links to the main departmental website and the research areas listing the faculty members involved can be found in Appendix B.

HISTORY OF THE DEPARTMENT

In the mid-1990s, the current Georgia Tech Provost and Vice President Michael E. Thomas and the Emory Dean of Medicine Thomas J. Lawley established an Advisory Committee of Georgia Tech and Emory faculty to address new opportunities in biomedical engineering. The Committee met initially on June 2, 1997 and was charged to develop a set of recommendations for an innovative and unique joint Department of Biomedical Engineering between Georgia Tech and Emory that would enable both institutions to maximize research and educational opportunities in fields of intersecting biomedical interest. The Committee was tasked with completing the recommendations quickly and was required to report to Dr. Thomas and Dr. Lawley no later than August 15, 1997. The Wallace H.
Coulter Department of Biomedical Engineering was established in September 1997.

The Biomedical Engineering Department is named in honor of Wallace Henry Coulter.

Recognized as one of the most influential inventors of the twentieth century, Wallace Coulter studied electronics as a student at Georgia Tech in the early 1930s. Mr. Coulter developed the "Coulter Principle," a theory that gave birth to both the automated hematology industry and the field of industrial fine particle counting. His "Coulter Counter," a blood cell analyzer, is used to perform one of medicine's most often-requested and informative diagnostic tests, the complete blood count. With his entrepreneurial insight, Mr. Coulter positioned the Coulter Corporation as the undisputed leader in the diagnostic industry. In October 1997, the Coulter Corporation was acquired by Beckman Instruments, Inc., and is now known as Beckman-Coulter, Inc. For more information, see www.whcf.org

The Biomedical Engineering building on the Georgia Tech campus is named in honor of Uncas A. Whitaker.

Born to a Missouri legislator, Uncas Whitaker spent his boyhood and received his early education in Missouri. After receiving mechanical and electrical engineering degrees from Massachusetts Institute of Technology and Carnegie Institute of Technology, respectively, and a law degree from the McKinley School of Law, in 1941 he founded the company that became AMP, Inc. In less than twenty years he developed his company into one of the giants of American industry. In the early 1960's, Mr. Whitaker and others envisioned a thriving new field that combined engineering and medicine to improve health care--biomedical engineering. Realization of this vision was aided by his many contributions during his lifetime and the establishment of the Whitaker Foundation shortly after his death in 1975.

PROGRAMS OF STUDY

The department offers graduate degrees in the following majors:

- Biomedical Engineering Ph.D. Program (Georgia Tech and Emory)
- Biomedical Engineering Ph.D. Program with Peking University (Georgia Tech, Emory, and Peking University)
- BioID Master’s Program (Georgia Tech)
- Associated Degree Programs (Georgia Tech)
  - Bioengineering (BIOE)
  - Bioinformatics (BINF)
  - Computational Science & Engineering (CSE)
  - Robotics (ROBO)

Students are considered for and admitted to doctoral level programs. Master’s degrees are offered only under special circumstances when a student is unable to
complete the doctoral program such as in the case of a student who does not pass the Qualifying Exam. Both MS and PhD candidates are required to complete theses/dissertations.

All majors other than BME and PKU are associated degree programs and are interdisciplinary. As such, they have leadership and structure separate from the department. Some of these programs offer specific handbooks of their own. Students in these programs are responsible for understanding the policies and procedures for both their major programs AND the department.

At the current time, the PKU program while closely related to the BME program does have some different forms, processes, and administration. Whenever needed, the Graduate Program Coordinator and/or the director of the PKU program will make clear to students what processes are different and how they should be handled.

Students that complete the BME degree program have degrees conferred by both Georgia Tech and Emory (i.e., one diploma with both institutions listed). Students that complete the PKU degree program have degrees conferred by Georgia Tech, Emory, and Peking University (Beijing, China). Students that complete one of the other programs have degrees conferred by Georgia Tech only.

Additionally, the department participates in Doctor of Medicine/Doctor of Philosophy (MD/PhD) programs with students choosing one of the above majors for the PhD portion of the program. Students must apply through the MD/PhD office at the home institution of the medical school such as Emory School of Medicine or Georgia Regents University (see Appendix A). BME majors in the MD/PhD program from Emory are treated as Emory students for academic and financial purposes, while other majors are treated as Georgia Tech students—meaning that they follow the same academic and financial processes (e.g., registration, tuition and fees, waivers, accounting) as other departmental students.

Curricula & Program Details

See the various following chapters for specific information on coursework, exams, research, theses, and other requirements.

ADMINISTRATION

The faculty body is responsible for establishing and maintaining the academic policies of the department aligned with Institute and Board of Regents guidelines. The Chair is primarily responsible for implementing strategic goals, the vision, and building culture that set the direction of the department and is assisted by the Associate Chairs while the Assistant Director, Administration/HR
ensures the department’s daily activities are executed by department staff and run smoothly.

Students have access to administrative staff that will support them in the areas of academics, finance, information technology, and operations.

See Appendix A for details on the individuals who fulfill the various faculty and staff roles.

FACULTY

Faculty members have a myriad of responsibilities including the advisement and mentoring of students, research in their areas of interest and expertise, managing the financial aspects of their labs, and instruction at the undergraduate and/or graduate level. The Associate Chair of Graduate Studies has primary oversight of the program. The Director of Graduate Training manages curriculum and other training concerns.

Primary & Program Faculty Members

Faculty members with primary appointments in the BME department are commonly referred to as “Primary Faculty” while those who participate in one or more of the department’s academic programs but who have primary appointments in other departments are members of the overall “Program Faculty” in each program. Each academic program has its own criteria for Program Faculty members. See the various associated degree program resources for information on program faculty information. See Chapter 5 for the BME Program Faculty Membership criteria and application process.

Faculty Committees

Several committees exist within the department’s faculty to assist with various aspects of the department’s operations and strategic planning. Those related to the graduate program are described below.

ADMISSION & RECRUITMENT COMMITTEE

This committee handles the application review process and makes recommendations on admission decisions. The chair works with the directors of the various programs (BME, BIOE, BINF, CSE, PKU, ROBO) to make admission decisions.

BME GRADUATE COMMITTEE
This committee (led by the Associate Chair of Graduate Studies) is responsible for program development and coordination of activities related to the graduate program, including assessment issues. Specific duties include the consideration of all proposed new courses, texts, curricula modifications, and program activities. Additionally, the committee reviews student petitions such as programs of study and thesis committee assignments. In addition to faculty, the membership includes two active graduate students.

Graduate student representatives for the BME Graduate Committee are solicited via a self-nomination and review process managed by the existing student members. Typically, students serve for 2-3 years and efforts are made to ensure continuity by having only one student roll off/on the committee at a time. Factors heavily considered with candidates for the positions include year in program, location of lab (GT/Emory), and any other criteria deemed necessary by the committee to keep diversity of representation.

**PKU PROGRAM GRADUATE COMMITTEE**

This committee is led by the director of the PKU program and has faculty members from both the Atlanta and Beijing sides. This committee has responsibilities similar to the aforementioned Graduate Committee specifically for students in the PKU program.

**GT & EMORY INSTITUTE COMMITTEES**

The GT Institute Graduate Curriculum Committee and EU Graduate School Executive Council are the bodies with responsibility for all institute-wide academic policies and degree requirements at the graduate level. The committees review curriculum and student petitions such as new course proposals, changes in graduate programs or standing, grade disputes, and readmissions. Student petition forms are generally available via the Graduate Offices or Registrar’s Offices for the two institutions. Students filing such petitions should discuss the matters with the Associate Chair for Graduate Studies.

**STAFF**

**Academic Office**

The Academic Office is responsible for advisement, career services, industry relations, and day-to-day operations of the graduate program. The Graduate Program Coordinator (Academic Advisor) is the primary contact person for academic matters, institutional policies, and required paperwork related to the graduate program. The Corporate Relations Manager in the Academic Office is the primary contact for career-related matters.
Finance Office

The Finance Office is responsible for the general accounting of the department, student payroll, and other financial matters. Information regarding the type of funding that students receive and the faculty or department accounts through which they shall be paid is maintained by this office. Students are responsible for initiating their online support forms and faculty members are responsible for reviewing and approving these forms. The Academic and Finance Offices work in conjunction to ensure that student tuition waivers are handled appropriately.

Administrative Staff

The department’s administrative staff provides support in the areas of Human Resources, building access and space planning, supplies, mail, general office needs, and program support in some cases. Some administrative staff members support the department in general or specific programs, while others work directly with individual faculty members. Institutional administrative staff members, especially in the GT and EU Graduate offices, provide assistance with various policies, procedures, and required forms and documents.

Technology Staff

The department’s technology staff provides support with computer needs including hardware, software, network, and internet and maintains all departmental websites and databases.

ASSOCIATED DEGREE PROGRAMS

The associated degree programs of Bioengineering (BIOE), Bioinformatics (BINF), Computational Science & Engineering (CSE), and Robotics (ROBO) in which BMED participates are interdisciplinary in nature and have program leadership separate from the department. The MD/PhD program also has its own leadership at Emory. The Associate Chair of Graduate Studies works closely with the faculty directors of the associated programs on admission, financial, and other student-related concerns. Some of the associated degree programs have separate staff persons for academic advisement, financial, and business support.

The department has ultimate decision-making responsibility as the students are considered assigned to BMED as a “home department/school.”
STUDENT ADMISSION PROCESS

TIMELINE

Applications are considered annually for enrollment in the fall term. In rare cases, an applicant may be considered for spring or summer. However, all prospective students should plan for fall consideration.

The deadline for submission of applications to all programs/majors with BMED as a home department is December 1 each year. All application materials, including test scores and recommendation letters, are due by this date. Some of the interdisciplinary programs have other deadlines posted and accept master’s applications, but BMED will only consider doctoral applications and those must be received by December 1. Prospective students are strongly encouraged to apply well in advance of this deadline.

Applications are reviewed by the Graduate Admissions Committee generally between December and early March. Top applicants may be invited to campus for interviews and recruitment in March (see Campus Visits below).

Decisions are normally completed by early-March so that prospective students have time to consider other school offers and respond by the standard April 15 response deadline. Financial award details are included with admission decision letters.

REQUIREMENTS FOR CONSIDERATION

A student who will have completed a Bachelor of Science (BS) degree before potential enrollment may apply for the doctoral program. The program does not require that a student first earn a Master’s degree. Applicants should have the following prerequisites:

- BS in engineering or life sciences
- One year (two semesters or three quarters) of calculus-based physics
- One year of organic chemistry (one semester is required; a full year is recommended)
- Calculus through and including differential equations (4 semesters total)
In addition to prior coursework and Grade Point Average (GPA), an applicant must submit a personal statement (as part of the actual application), Graduate Record Examination (GRE) scores, and letters of recommendation. Non-native English speakers should submit Test of English as a Foreign Language (TOEFL) scores. Prior research experience is not required, but is strongly preferred.

APPLICATION SUBMISSION

All interested students must apply through Georgia Tech’s Graduate Admissions Office (http://www.gradadmiss.gatech.edu/). All applicants must submit an application with statement of purpose, three letters of recommendation, official transcripts from all colleges/universities attended, official GRE scores, and TOEFL scores (for non-native English speakers). The Graduate Admissions website provides details on how to submit application materials. International applicants should be sure to read the entire instructions for international admissions.

PKU Applications

Students admitted to the PKU program submit application paperwork for the secondary campus institution(s) in the year following their admission to the primary campus.

Beijing-based students must submit application materials through the GT Graduate Admission system as described above. The deadline for submission of all information is December 1 of the first year of enrollment at PKU BME. Copies of this information will be forwarded to Emory’s Graduate Admission by the BME Graduate Program Coordinator.

Atlanta-based students must submit the following information to Peking University. The deadline for submission of this information is December 14 in the first semester of enrollment. Clarification and assistance with the process will be provided by the PKU Program Coordinator.

1. Peking University Application Form for International Students (Master and PhD Programs). Submit the online application at http://www.isd.pku.edu.cn/html/english/ or http://www.studyatpku.com, and then print a hard copy with passport-type photo affixed and mail to the PKU Program Coordinator.
2. Official transcripts from all colleges and universities previously attended.
3. Personal Statement (limit of 1500 words for doctoral programs). The format can be downloaded at http://www.isd.pku.edu.cn.
4. Two Recommendation Letters from professors or other academic personnel. The Graduate Program Coordinator can provide a copy of your original GT application with recommendation letters directly to the PKU Program Coordinator.
APPLICATION REVIEW

The Graduate Program Coordinator manages the application process in conjunction with the chair of the faculty Admissions Committee and the Associate Chair for Graduate Studies. The Coordinator retrieves all BMED applications from the Graduate Admissions Office and facilitates the initial review process. The Coordinator is the primary point of contact for applicants during the admission process.

Application files are reviewed by the Admissions Committee, which is composed of faculty members. All aspects of the application are considered, including GPA, academic background, research experience, GRE scores, letters of recommendation, and personal statement. There is no quota for international or domestic students as the Admissions Committee seeks the best applicants, regardless of citizenship. The applicant pool is very competitive with the acceptance rate typically being less than 20%. Decisions are communicated in writing (not via phone or e-mail), but applicants may check on the receipt of their application materials online via the Graduate Admissions website.

CAMPUS VISITS

Admitted applicants are normally invited to a group recruiting event in March. The Associate Chair for Graduate Studies and the Admission Committee determine which students are invited. (Due to budget limitations, invitations are extended only to applicants residing in the US.) During the event, students are given the opportunity to meet with faculty members in whom they are interested and current students. Presentations on curriculum and various research activities are given. Tours are provided of labs and facilities on both campuses.

If scheduling conflicts arise, attempts are made to arrange alternate visits on a case-by-case basis.

Travel, lodging, and meal expenses are covered or reimbursed for invited students. Details on allowable expenses are provided to invitees by the Director of the Academic Office.

DECISIONS

The Associate Chair for Graduate Studies and the directors of the associated degree programs use information from any or all of the following sources in order to make admission decisions for the department: the Graduate Program Coordinator, the Admission Committee, and campus visits.

Some admission decisions are made on a rolling basis. In order to maximize the opportunities to pursue other options for applicants considered less competitive, notification letters will be sent to those students as soon as possible. However,
offers of admission are generally made only after the conclusion of campus visits. Written offers include admission and financial aid details.

INTERNATIONAL STUDENT PAPERWORK

The GT Graduate Admission Office and BMED Graduate Program Coordinator work in conjunction to produce and send initial immigration documents (such as the I-20) to new international students. Afterwards, the GT Office of International Education is the primary source for information and assistance for international students.

STUDENT RESPONSES

The commonly accepted deadline for graduate admission student responses across the US is April 15. Students should be prepared to compare all offers of admission (and financial assistance) and make their choices for enrollment by this date. BMED admission letters include an official student response form, which should be submitted to the Graduate Program Coordinator by this deadline.

The application materials for students who plan to enroll are forwarded to Emory University and Peking University, as appropriate for the chosen program, and are processed in those schools’ systems. BME students are recognized with full student status at both Georgia Tech and Emory. PKU students are recognized with full student status at Georgia Tech, Emory, and Peking University.

MD/PHD ADMISSION PROCESS

Prospective students in the MD/PhD program begin the process by applying through Emory's School of Medicine. A special committee, which includes a faculty member from the BMED department, reviews the applications and those recommended for admission to BMED are sent to the department’s Admission Committee for final review.

Admitted MD/PhD students that expect to enroll in a BMED program are welcome to attend seminars and other events prior to official enrollment (though no formal registration will occur). These students normally make final decisions on where to enroll for their PhD programs in the fall term of the second year of medical school and thus are encouraged to attend the department's new student orientation at the beginning of that term. If choosing a program in BMED, they must complete the GT application process and are typically admitted for the subsequent spring term while they complete lab rotations. The academic program officially begins in the following fall with the other newly admitted students.
NEW STUDENT INFORMATION

FINAL ADMISSION PAPERWORK

New students that have committed to enrolling (by way of their official student response forms sent to the BMED Graduate Program Coordinator) must complete the admission process by submitting any and all final required paperwork to the GT Graduate Admissions Office. Typically, this paperwork includes an updated, official transcript showing final grades in any coursework that was outstanding at the time of application submission. A complete list of required documents will be sent to each student by the Graduate Admissions Office.

ORIENTATION

Typically offered in mid-August during the week before the fall term begins, all academic, financial and business matters pertinent to new graduate students are covered during orientation. In addition to the department’s specific orientation, there are also Institute-wide (GT) sessions sponsored by the Graduate Admissions Office and international student sessions sponsored by the GT Office of International Education (OIE). Attendance at these sessions is critical and thus students should plan to arrive on campus before orientation begins.

GT Institute-wide Orientation

Representatives from offices on campus involved with enrollment, acclimation to campus, and essential business (such as Human Resources) are present at the Institute-wide orientation. GradExpo is a component featuring campus services, student organizations, and local businesses that assists new students in becoming familiar with campus life at GT and the surrounding community. Specific student business includes health/medical issues (e.g., health insurance and immunization requirements), obtaining a Social Security card, and payroll processing. Details on this orientation can be found online at http://www.gradadmiss.gatech.edu/orientation/.
NEW HIRE PAPERWORK FOR STIPENDS: All new students on Graduate Research Assistantships—except MD/PhD—complete GT Office of Human Resources (OHR) hiring packets and meet with OHR representatives during the Institute-wide orientation. Stipends are then managed by the Finance Office and paid monthly via direct deposit into the students’ bank accounts. Most fellowship monies are dispersed by the GT Office of Scholarships & Financial Aid and OHR paperwork is not needed.

BMED Departmental Orientation

The Academic Office sponsors a department-specific orientation for all new BMED graduate students, which is held during the week prior to the first day of classes in the fall term. Academic, financial, administrative, and technical information particular to BMED is reviewed in detail by the appropriate departmental resources. A panel of current students is available to discuss various topics such as student-led organizations, networking, and social opportunities. Faculty members are available to discuss academic matters and research opportunities.

BME PROGRAM: Since most students are not yet matched with faculty advisors before enrollment, the Associate Chair for Graduate Studies and other faculty members assist new students during orientation with course selection for registration and curriculum planning purposes.

ASSOCIATED DEGREE PROGRAMS: Students in majors other than the BME program will have a portion of the departmental orientation with their specific program leadership. MD/PhD students who expect to enroll in the following year are invited so that they will be familiar with various processes before being admitted for lab rotations in the spring.

International Student Orientation

In addition to critical immigration and related financial matters, the specific international student orientation includes key sessions regarding academic and cultural transitions. Personal health and spouse orientation sessions are also offered. Details on GT OIE orientation and pre-arrival information for accepted international students are found online at http://www.oie.gatech.edu/isss/admissions/.

ENGLISH LANGUAGE ASSESSMENT

Emory requires that all BME students whose native language is not English—regardless of language of instruction or TOEFL score—complete an ESL (English as a Second Language) assessment. This testing is normally conducted in mid-August around the time of orientation.
FACULTY ADVISOR ASSIGNMENTS

Faculty Interviews

The “right” student-faculty advisor match is critical to success in a doctoral program. In addition to common research interests, a good match takes into account such factors as work-style, personality, and culture. To facilitate an appropriate match between a student and faculty advisor, students are required to interview several faculty members early in the first semester. Interviews should include in-depth discussions with the faculty members as well as participation in lab group meetings (where other students are in attendance), lab tours, etc.

To ensure that students gather ample information and because specific matches cannot be guaranteed (due to possible funding limitations), each student must interview four to six faculty members. By mid-September of the first year, each student must submit a list of the faculty member names ranked in order of preference for the advisor match to the Graduate Program Coordinator (BME students) or Academic Advisor (students in associated degree programs). Faculty members will also submit lists of student preferences.

The Associate Chair for Graduate Studies and directors of the other programs will review the submissions and assign matches using the following criteria in order of importance: student preference, faculty preference, priority for externally-funded projects, and current distribution of students among advisors.

Optional Lab Rotations

Depending on funding and availability, students in the BME program may have the opportunity to complete one or two research rotations during the summer prior to the first year’s fall enrollment. Admitted students are welcome to contact individual faculty members of interest to determine if a rotation is possible. Arrangements should be coordinated through the Graduate Program Coordinator. Students are typically paid at the regular stipend rate, prorated depending on the time period. Students who participate in such rotations will have ample opportunity to meet with faculty members and other lab personnel (including current students) in order to facilitate selecting faculty advisor preferences early. These students are still expected to participate in interviews as matches with faculty members from the rotations cannot be guaranteed. Students who do not participate in summer rotations are encouraged to arrive on campus in early August in order to maximize the time available for faculty interviews.

Various fellowships and training grants also offer students the opportunity to participate in lab rotations. The number and duration of the rotations vary
according to the terms of the funding source. Thus, the timing of when advisor matches are made in these cases varies.

**Designated Offers of Admission**

Students whose offers of admission designated specific faculty members have already been matched with their faculty advisors and do not participate in the interview process or rotations.

**Change of Faculty Advisors**

A student seeking a change of faculty advisor should first discuss the matter with the current advisor. The Associate Chair for Graduate Studies and director of an associated degree program, if applicable, should be consulted to ensure that all parties’ needs and obligations are met.

**REQUIREMENTS FOR ALL STUDENTS IN THE DEPARTMENT**

All BMED students, regardless of major, are responsible for the following:

- Four semesters of BMED 7001: Biomedical Engineering Seminar—*See section on Seminar Participation Series in the Curriculum chapter for details.*
- Two semesters as a Teaching Assistant (TA) for doctoral students (or one semester as a TA for master’s students, if that level has been approved)—*See section on Teaching Assistantship Series in the Curriculum chapter for details on these responsibilities.*
- Minimum course load each semester of 16 hours (Summer terms) or 21 hours (Fall and Spring terms) in the GT system
- Completing an online BMED Student Support Form each semester - *See section on Student Support Form Database in the Finances chapter for details.*
FINANCES

This chapter is intended to offer the most pertinent information related to graduate program finances to students, faculty, and staff. These policies are applicable to all students in all majors. Complete details on institutional policies and procedures can be found via the various administrative, business, human resources, and finance departments. Links to the most relevant internet resources regarding the policies can be found in Appendix B.

FUNDING SOURCES

The department normally offers full funding to admitted students that includes a stipend and coverage of tuition. Funding sources include departmental and institutional funds but are primarily from individual faculty members once student/faculty advisor assignments are made. Students are strongly encouraged to seek external funding and those that obtain partial funding normally receive supplemental funds from the faculty advisor (primarily) or department. Most non-resident students (i.e., those who are not legal residents of the State of Georgia) are offered a reduction in tuition via the waiver process described below. All students receive a monthly stipend intended to offset living expenses. The funding is designed to support students only and not their dependents.

Graduate Research Assistantships

In most research-oriented universities, the predominant means of support for graduate students is via graduate research or teaching assistantships. The research skills and knowledge developed through these assistantships often lead to a student’s own thesis research.

Most new students in BMED are hired under the Graduate Research Assistantship (GRA) program. GRAs are generally intended to be funded through sponsored research of a faculty member. GRA students participate in research and typically perform the following activities: help conduct experiments, analyze data, research academic literature, write computer programs, and author papers and theses. GRAs are required to maintain full-time enrollment.
Fellowships

Fellowships are monetary awards, usually designated for graduate students, and many are nationally competitive. There are often specific requirements and expectations, and some fellowships are limited to particular fields of study. Students applying for fellowships should carefully read the requirements (usually on the fellowship website) before applying to be certain that they have the qualifications to apply for the award. Competitive students are generally those who achieve high grades and are deemed to have potential to make significant contributions for the public good. Fellowship students are required to maintain full-time enrollment.

The GT Fellowship Communication Program assists student applicants with determining for which awards they qualify, how to prepare for applying, feedback about students’ writing, and interview practice. The program assists with both internal and external opportunities. See Appendix B for links related to fellowships, including the Fellowship Communication Program.

INTERNAL

Georgia Tech offers several fellowship opportunities that are specific to students of the Institute. These include the FACES (Facilitating Academic Careers in Engineering and Science), Goizueta Foundation, William Randolph Hearst, and President’s Fellowships. In general, the Associate Chair for Graduate Studies and directors of the associated degree programs determine which students will be nominated for these fellowships during the admission decision-making process.

EXTERNAL

Many public and private organizations offer graduate fellowships with some of the most popular for BMED students being from the National Science Foundation (NSF) and National Institutes for Health (NIH). Both the GT Fellowship Communication Program and Graduate Studies office provide links to many external fellowship opportunities on their websites.

Other Financial Aid

Students requiring further financial assistance, including student loans, should contact the GT Office of Scholarships & Financial Aid.
TUITION & FEES

As most students are considered to have GT as their institution of record and GT is a public university, tuition and fees for the program are set by the University System of Georgia’s Board of Regents (BOR) on an annual basis. Residents of the State of Georgia and Non-Residents (i.e., out-of-state and international students) are charged different rates. Residency or Tuition Classification is determined by BOR policies and questions regarding a student’s status should be directed to the GT Registrar’s Office.

The GT Bursar’s Office is responsible for the assessment of student tuition, financial aid disbursement, and billing. After completing registration each term, students submit payment online via OSCAR, the GT registration system. Current tuition and fees information is found online via the Bursar’s Office website.

Most BMED students receive tuition waivers and then tuition is charged to the faculty advisors (see below). However, most students are typically still responsible for a small amount of tuition and the mandatory student fees. The exact amount is dictated by the type of funding and varies annually with any change in costs set by the BOR. For new students, an estimate of the out-of-pocket costs is included in the admission offer letter.

PKU students from the Atlanta side will continue with registration and financial arrangements via GT as usual even when they travel to Beijing for the year of exchange research. Peking University will not charge any tuition or fees.

EMORY: For Joint BME and PKU program students, any initial charges related to course registration shown in a student’s OPUS account (EU registration system) should be cleared by Emory Graduate School staff before the close of registration.

*CRITICAL NOTE: Any subsequent changes that a student makes to his/her registration in OPUS must be reported directly to the EU Graduate School Registrar (see Appendix A for Administrative Staff) immediately so as to avoid being personally responsible for later charges. This includes the addition or removal of an actual course being switched with the BMED 9999R placeholder.

Tuition Waivers

Pursuant to the Graduate Student Tuition Remission Program (GSTRP) and Office of Scholarships & Financial Aid’s Non-Resident Waiver Request process, most students receive some type of tuition waiver. Waivers are not guaranteed and are offered according to institutional and departmental policies and budgets. Further, they require re-nomination each semester. Students on fellowships that offer full tuition do not receive waivers.
Non-Resident tuition waivers reduce the amount of tuition owed to the Institute to Resident remission rates. Resident tuition waivers reduce the amount of tuition owed from standard to remission rates. Faculty member accounts are charged for the remission rates. Thus, students with waivers pay a nominal amount but tuition is being paid for them.

The Academic Program Coordinator is responsible for entering GRA tuition waivers into the campus system and submitting nominations to the financial aid office for non-resident fellowship waiver requests.

**IMPORTANT NOTE:** Waivers are processed only for students who update their Student Support Forms (see below) in a timely manner. Otherwise, students must be prepared to pay full tuition.

**COST OF ATTENDANCE ESTIMATE**

The GT Office of Scholarships & Financial Aid provides an annual estimate of total costs of attendance that includes tuition and fees, books and supplies, standard housing allowance, standard meal allowance, and miscellaneous personal expenses. Current figures can be found via the financial aid website.

**STIPENDS**

Students are considered employees and must be hired by the department each term. After submitting the initial HR paperwork during orientation, students update their funding sources via the online Student Support Forms (see below) and work with the Finance Office for payroll matters.

Stipends are paid monthly (last business day of the month) via direct deposit into student bank accounts. Stipends are taxable in accordance with US laws and thus standard withholdings are applied.

**STUDENT SUPPORT FORMS DATABASE**

**BMED Graduate Students**

All students with BMED as a home department, regardless of major/program or physical location, must complete an online Student Support Form each semester. This support form serves two critical functions. First and foremost, the information submitted by the student is used by the BMED Finance Office to determine the appropriate stipend/payment. Second, the information is used by
the Graduate Program Coordinator to determine whether a tuition waiver (and what type) is appropriate for the student. The form must be updated each term, even if the source of funding has not changed.

Any BMED student who is paid via funds from another academic unit (e.g., BMED student whose faculty advisor is in ME) must also complete a support form for the department from which she or he is paid. Details on the process should be obtained from that department.

**Non-BMED Graduate Students**

All students who are paid by BMED but belong to another department academically must also complete an online Student Support Form each semester. The form must be updated each term, even if the source of funding has not changed. Any applicable tuition waivers will be handled by the students’ home departments and not by BMED. Students should complete support forms with their own departments as well.

**Faculty Advisors**

After students complete their support forms, the system sends them to the appropriate faculty advisors for the approval stage. Faculty members need to enter specific account numbers, dollar amounts, periods of support, and any comments needed.

**Deadlines for Support Form Completion**

Students and their faculty advisors (who must provide approval and specific account details) must complete support forms by the following dates each semester/year. These deadlines are driven by the accounting processes required by the BME Finance Office and by the deadlines of the GT Financial Aid Office for receipt of fellowship tuition waiver requests.

- Fall term – May 1
- Spring term – October 1
- Summer term – February 1

**IMPORTANT NOTE:** Students must personally update their support forms each term. Faculty members (or their designees) then approve and provide account details. Strict adherence to the aforementioned deadlines by both students and faculty members is required in order for stipends and any applicable tuition waivers to be processed.
Any changes to a student’s status (e.g., receiving a fellowship after support form completion or changing the planned graduation term) should be reported to both the Academic and Finance Offices ASAP. The support form will need to be updated by the student and approved again by the faculty advisor.

Student Instructions for Completing the Support Form

- **Create an Account:** Prior to the first term of support, contact the BMED webmaster at webmaster@bme.gatech.edu with a request for a new account. Include full name, GTID, home department, major, and full GT e-mail address (e.g., george.burdell@mail.gatech.edu). A temporary password will be assigned, which must be changed prior to submitting the first support form.

- **Log on** to the online BME AdminPlus system (https://www.bme.gatech.edu/admissions/students/login.php) using complete GT email address and password. For any technical problems with the system or forgotten passwords, please e-mail webmaster@bme.gatech.edu.

- **Funding Period:** Update with the current term (e.g., Fall 2009).

- **Advisor:** Ensure that the correct faculty member who provides financial support is listed.

- **Status:** Enter the type of funding (GA, GRA, Fellowship, or MD/PhD*) with the specific names of fellowships, if applicable. Please check with the Student Payroll Accountant in the Finance Office if unsure of funding type.
  - *MD/PhD* – Status for Emory MD/PhD students only. MD/PhD students from all other medical schools should choose GRA.
  - **Multiple fellowships:** List all received.
  - **Combination of Fellowship and GRA funding:** Choose GRA for the Status and include the name of all Fellowships in the appropriate drop-down fields.

- **Options for Term of Planned Graduation:** BMED students should consult with the Graduate Program Coordinator in the Academic Office about the various options before completing their support forms.
  - For those planning to use one of the alternate registration options (e.g., 1-credit hour) in conjunction with being hired as a GA, then indicate GA for Status. In this case, no tuition waiver will be applied.
  - For those planning to use an Enrollment Waiver for the last term, no support form is necessary.
• **Upload Forms:** Submit any necessary documents regarding the funding source using this field.

• **Review** all remaining fields and correct, if necessary.

• Click **Update** to submit support form.

**Faculty Instructions for Completing the Support Form**

• **Create an Account:** If an account has not already been set up, contact the BMED webmaster at [webmaster@bme.gatech.edu](mailto:webmaster@bme.gatech.edu) with a request. Include full name, full GT e-mail address (e.g., [george.burdell@mail.gatech.edu](mailto:george.burdell@mail.gatech.edu)), and GTID. A temporary password will be assigned, which must be changed prior to submitting the first support form.

• **Log on** to the online BME AdminPlus system ([https://www.bme.gatech.edu/admissions/](https://www.bme.gatech.edu/admissions/)) using complete GT email address and password. For any technical problems with the system or forgotten passwords, please e-mail [webmaster@bme.gatech.edu](mailto:webmaster@bme.gatech.edu).

• Navigate to **Faculty Review/Teaching Support/Students Supported** to find the list of students needing approval.

• Enter specific **Account Number, Dollar Amount, Period of Support**, and any **Comments** (e.g., subcontract information) for each student.

• Click **Update** to approve and submit each support form.

**System Notifications**

After the student portion is updated, the system will send the advisor a notification indicating that the support form is ready for approval.

After the faculty advisor approval has been completed, the student will receive a confirmation e-mail. If no confirmation of this step has been received by the morning of the deadline, the student should contact the advisor immediately.

Once both student and faculty portions have been completed, the system will notify the Finance Office to process the appropriate hiring status and stipend payment.

Upon approval by the Finance Office, the Academic Office will process any applicable tuition waivers. GRA and MD/PhD waivers are input directly into the campus system. Fellowship waiver requests are submitted to the GT Financial Aid Office. No waivers are given for GAs.
ROLES & RESPONSIBILITIES OF FACULTY & STUDENTS

HONOR CODES

Honesty is expected of all members of the GT and EU communities. Both institutions have honor codes that are intended to remind students and faculty of the importance of honesty in their professional lives. These codes also serve to increase awareness of the institutional policies related to academic honesty and the processes to be followed when these rules are broken.

It is the responsibility of the faculty to make specific expectations of appropriate conduct clear. Students may be asked to attach a statement with signature to various assignments indicating a pledge to uphold the honor code. Links to the complete honor codes of both institutions are found in Appendix B and a sample pledge is found in Appendix C.

FACULTY ADVISOR-STUDENT RELATIONSHIP

The nature of the faculty advisor and graduate student relationship will vary to some degree depending on the laboratory chosen, however there are common facets of academic, intellectual, and professional mentorship expected by the advisor beyond the employment responsibility of obtaining resources to pay the student and allow him/her to conduct needed experiments during graduate school. Academic advising is in the form of suggesting topics of study that would be appropriate to the student’s graduate thesis research. Intellectual advising consists of providing feedback on research ideas, assessing experimental progress, and mentoring scientific writing and dissertation. Professional mentorship will encompass identification of presentation opportunities at professional society meetings, enabling networking with colleagues in academia and industry, and guiding the student towards the next stage of his/her career. In return, the student’s written work (papers, abstracts, patents, thesis, etc.) as well as their contribution to laboratory operations (generating ideas, helping train new students, etc.), are considered the “products” to be provided to the advisor.
during their time in graduate school, and will also form the basis of the next stage of the student’s scientific career.

BME PROGRAM FACULTY MEMBERSHIP CRITERIA & APPLICATION PROCESS

The Wallace H. Coulter Department of Biomedical Engineering Graduate Program (BME) is an interdisciplinary graduate program offering a joint Georgia Tech/Emory Biomedical Engineering Ph.D. Degree. The students in this program have quantitative life science or engineering backgrounds, and have research interests in a wide range of topics. In order to serve as the primary academic and research advisor of these students, a faculty member must be a member of the BME Graduate Program Faculty. The primary (full and joint) BME Faculty members are automatically part of the BME Graduate Program Faculty. Other faculty members with appointments through Georgia Tech and/or Emory may apply to join the BME Graduate Program Faculty.

Program Faculty Responsibilities

Each member of the BME Graduate Program Faculty is expected to be involved in the teaching and advising responsibilities of the Program. This requirement can be met through a combination of activities to include: 1) teaching or co-teaching a course or module in a course listed as BME core or approved electives including courses cross-listed with BME, 2) service on student qualifying and thesis examination committees, and 3) participation in recruitment efforts. It is expected that each member of the BME Graduate Program Faculty will have adequate external research funding to support the stipends and research expenses of students under his/her supervision.

Admission to Program Faculty

Any tenure-track faculty member at Georgia Tech and any full time faculty member at Emory University who has a significant research focus in biomedical engineering may submit a request for admission to the BME Graduate Program Faculty. It is required that an applicant have a current BME faculty member that can serve as a sponsor for the application.

The request should include:

1) A letter addressed to the chairperson of the BME Graduate Committee, indicating the applicant’s research area, his/her commitment to supporting students, and a statement as to how the applicant intends to satisfy the teaching requirement. The letter should include the contact information for
the administrative support personnel who assist with various academic, financial, and other administrative concerns for this faculty member. The letter should include the name of the current BME Program Faculty member who will serve as a sponsor for this applicant. Finally, this letter should include support from the chairperson of the department in which the applicant holds his/her primary appointment.

2) A full CV and a two-page CV in either NIH or NSF format.

Applications will be collected by the Graduate Program Coordinator throughout the year and the BME Graduate Committee, whose members are appointed by the BME leadership, will review all applications at one time during the fall term. Upon recommendation from the BME Graduate Committee, the final decision on membership will be made by a vote of the current BME Graduate Program Faculty early in the spring term in time for new members to participate in graduate student recruiting.

If admitted, the new members will be eligible to serve as primary advisors to BME students. Unless and until they are admitted, applicants may still fund students under a co-advisement relationship but an existing BME Program Faculty member must be the primary advisor of record.

If not already a GT faculty member, the department’s Human Resources representative will contact the new member with institutional paperwork required for access and privileges at GT.

SUBMISSION OF REQUESTS

Items 1 & 2 as described above should be submitted to the BME Graduate Program Coordinator in electronic version to gradstudies@bme.gatech.edu.

Renewal of the Membership in the BME Graduate Program Faculty

Participation in the Program Faculty will be reviewed every three years. Involvement with recruitment, qualifying exams, teaching, and student advisement will be examined. After review by the BME Graduate Committee, formal approval for membership renewals will be made by a vote of the BME Graduate Program Faculty.
GUIDELINES FOR WHEN A FACULTY MEMBER LEAVES GEORGIA TECH OR EMORY

If a faculty member leaves Georgia Tech or Emory such that s/he is severing the official relationship with the institution(s) and department, provisions must be made for the graduate students being advised. The determination of whether a student can or may remain in a program supported by the WHC Department of Biomedical Engineering (BMED) will be made according to the following guidelines. Consultation between the faculty member, student, BMED Academic & Finance Offices, and GT Office of International Education (where applicable) should begin as early as possible in the process of the faculty member’s potential decision to leave in order to protect all parties from the academic, financial, and legal perspectives.

1. Assess the student’s immigration status.
   a. If the student is a US Citizen or Permanent Resident card holder, proceed to Step 2.
   b. If the student is under an international immigration status (not a US Citizen or Permanent Resident card holder), the Office of International Education must be consulted. In most cases, it will not be possible for the student to remain in a GT or Emory degree program and move with or remain under the advisor that is leaving. Possible options include:
      i. The student may remain in the degree program (and in Atlanta) under a different advisor. Academic and financial arrangements must be changed.
      ii. If the advisor is moving to another academic institution, the student may transfer into the new institution’s degree program and move with the advisor. This option would have to be approved by the other institution.
      iii. If the advisor is moving to a non-academic institution, the student could explore the option of working as a non-student under some other immigration status.

2. Assess the student’s academic progress and determine where the student wishes to be physically located after the advisor leaves.
   a. Has the student presented the research proposal and been admitted to PhD candidacy?
b. Will the student move away from the GT and Emory campuses to be in the advisor’s new lab?

3. For a student who has NOT yet presented the research proposal and been admitted to PhD candidacy:

   a. If the student wishes to remain in a BMED program and stay in Atlanta, the student must be reassigned to another advisor at GT or Emory that is appropriate and eligible for the student’s research and program.

   b. If the student wishes to move with the advisor whose lab is moving the lab to a non-academic institution (e.g., a hospital), it is not possible to remain in the BMED program under that advisor. Thus, the student may either leave the program OR remain in Atlanta and be reassigned to another advisor at GT or Emory that is appropriate and eligible for the student’s research and program.

   c. If the student wishes to move with the advisor whose lab will be located at another academic institution, the student needs to transfer to a degree program at the new institution. Since admission to that institution may not be guaranteed, the advisor needs to discuss and negotiate this with the new institution.

4. For a student who HAS presented the research proposal and been admitted to PhD candidacy:

   a. If the student wishes to remain in a BMED program and stay in Atlanta, then a co-advisor that is appropriate and eligible for the student’s research and program needs to be secured. The co-advisor must assume both academic and financial responsibility for the student. The original advisor and new co-advisor should determine the arrangements for transfer of funds as necessary.

   b. If the student wishes to obtain a BMED degree (GT or GT/Emory) but move with the advisor whose lab will be located at another academic institution or at a non-academic institution:

      i. For BMED academic purposes, a co-advisor that is appropriate and eligible for the student’s research and program needs to be secured.

      ii. For financial purposes, the student can no longer be hired through GT or Emory. Thus, neither tuition remission nor tuition waivers can be granted. The student must register for a minimum of 3-credit hours of doctoral thesis hours each term until graduation and directly pay
tuition and fees personally. Since BMED guarantees a minimum stipend and coverage of tuition to all admitted students, a contract between the department and advisor should be drawn indicating that these commitments will be fulfilled by the advisor. The advisor should make arrangements with the new institution for stipend payments and reimbursement of tuition (students typically are responsible for their own fees).

STUDENT PERFORMANCE POLICY

Graduate students of the WHC Department of Biomedical Engineering are expected to make sufficient progress towards degree completion in order to remain in the program and to maintain funding. This includes the successful completion of coursework as defined by the approved Program of Study, satisfactory research performance as defined by the thesis advisor, the passage of the various milestones in a timely fashion, fulfillment of all departmental requirements, and maintaining all minimum institutional standards (both Georgia Tech & Emory for BME students and Georgia Tech, Emory & Peking University for PKU students).

Initial Student Performance Concerns

When a student fails to make sufficient progress, the advisor or program administration has the responsibility to notify the student within a reasonable timeframe (3 months) and work with the student to develop a performance improvement plan. The first stage should involve a discussion between advisor and student about performance expectations. The student may also receive warning in the form of an “Unsatisfactory” (U) grade in the thesis hours course—BMED 7000 or 9000.

Documentation of Performance Improvement Plan

If the student’s performance continues to be less than satisfactory to the advisor or program administration, the next stage involves written notification to the student and the BME Academic Office (Associate Chair for Graduate Studies and Graduate Program Coordinator with a copy to the student’s file) outlining the student’s deficiencies and specific performance improvement goals. The student should expect to receive an unsatisfactory grade in the thesis hours course at this level. A timeline that is deemed reasonable to the situation by all parties should be established and documented in the plan.
Contract for Remaining in the Lab and Program

If the student has not shown significant improvement by the end of the previously designated timeline and the advisor is considering withdrawal of advisement and financial support, an official contract must be entered upon at a minimum of one full academic term before potential dissolution of the academic and financial relationships. The contract should indicate a timeline that coincides with the end of an academic term in order to maintain the proper accounting for registration and payroll processes. The contract should include specific deliverables that the student must achieve in order to remain under advisement and financial support of the advisor. The contract should also include a stipulation that the student actively seek out a new advisor that would support the student academically and financially immediately following the end of the contract. Every effort by all parties should be made to successfully fulfill the contract to remain in the current lab, but the student also needs to seek out an alternative advisor to ensure that persistence in the program is secure. Only in rare circumstances would the department consider financially supporting a student who did not secure a new advisor.

At the end of the contract period, a determination of the student’s status will be made and communicated by the advisor to the student and BME Academic Office.

- If the student has met the conditions of the contract such that the advisor wishes to continue supporting the student then documentation will be made in the student’s record to consider the contract completed. The Academic Office may inquire periodically about the student’s performance until completion of the degree program.
- If the student has not met the conditions of the contract to the satisfaction of the advisor and has secured another advisor, the academic and financial records will be updated to indicate the new student-advisor relationship. The Academic Office may inquire periodically about the student’s performance until completion of the degree program.
- If the student has not met the conditions of the contract to the satisfaction of the advisor and has not secured another advisor, the student will be dismissed from the program. Any appeals for exception to this policy must be made directly with the Associate Chair for Graduate Studies. Situations will be reviewed on a case-by-case basis to consider any extenuating circumstances.

Dismissal

A student who is dismissed from the program should participate in exit interviews with the BME Academic Office to ensure that academic and financial matters are handled properly as well as with the advisor (or designee) to ensure that all access mechanisms and property of the lab are returned.
Readmission

A graduate student who is dismissed by the department or either institution (Georgia Tech / Emory) for academic or disciplinary reasons will not normally be readmitted. A student who takes an approved leave of absence from the program and is in good standing may apply for readmission starting with the GT Registrar’s Office.

Rights and Responsibilities

All parties involved have both the rights and responsibilities for the following at any and all points in the process: confidentiality, clear communication, constructive and professional interactions, appropriate and fair expectations, clarification of expectations, timeliness of actions and communication, and consultation with the BME Academic Office and/or departmental administration whenever needed. The utmost sensitivity to professional and personal concerns will be upheld at all times.

RECORD-KEEPING

Accurate, thorough, and timely documentation of all academic, financial, and other business matters is vital to all constituents of the program—students, faculty, staff, department, and institutions. Details for the most critical matters are described throughout this handbook. All members of the BMED community are expected to contribute to this effort by adhering to all requests and processes in a timely manner.

Student Files

The official student records subject to FERPA (Family and Educational Rights Protection Act) are maintained by the Offices of the Registrar at Georgia Tech and Emory. The departmental files maintained by the BMED Academic Office are not subject to FERPA and thus are not required to be accessible for student review. Students may request certain information from their files (including but not limited to copies of milestone forms), but will not be given direct access due to the sensitive and confidential information contained within them (e.g., admission recommendations to which they previously waived their rights to view and details from qualifying exams that may not be appropriate for distribution). The Associate Chair for Graduate Studies and staff in the Academic Office are responsible for reviewing student requests for information and determining what access shall be given.
STUDENT PETITIONS

All policies and procedures related to BMED graduate students are outlined as best possible within this handbook. Students are responsible for adhering to both departmental and programmatic guidelines (which may include sources outside the department in the cases of students in interdisciplinary programs).

Students who have a grievance related to some aspect of their program in the Wallace H. Coulter Department of Biomedical Engineering (GT/Emory BME) should report it to the Associate Chair for Graduate Studies. The student should describe the grievance and relevant details in a letter addressed to the Associate Chair for Graduate Studies, who will try, if possible, to resolve the grievance in conversation with the student and relevant parties. If this is not successful, the Associate Chair will refer the grievance to the Graduate Committee, who will review the grievance and propose an appropriate response. If it is impossible to resolve the grievance within this committee or within the framework of the GT/Emory BME administrative structure, the Associate Chair will forward the grievance to the Office of the Vice Provost for Graduate Education & Faculty Affairs at Georgia Tech and/or the Office of the Senior Associate Dean of the Laney Graduate School depending on the parties and circumstances involved. At Emory from this point forward, the grievance will be handled according to the Grievance Procedure outlined in the Laney Graduate School Handbook. If the issue is with the Associate Chair, the student should go directly to the Vice Provost for Graduate Education & Faculty Affairs at Georgia Tech or the Senior Associate Dean of the Laney Graduate School.
BUSINESS POLICIES

This section outlines the main business policies and procedures related to graduate students. Students are responsible for understanding this information and fulfilling all requirements. Contact information for particular staff members is found in Appendix A. Links for the websites of departments mentioned are found in Appendix B.

BUILDING ACCESS

The Administrative Staff on each campus will provide the appropriate building access to eligible students and faculty. A form with proper authorization is required. For access to labs, an additional safety certification is required. At GT, the student Buzz Card will be programmed for UAW building and lab access. (Any change in labs requires re-programming of the card.) At EU, keys and access codes are assigned to students whose labs are at EU.

COMPUTER ACCESS & USAGE

All new students are assigned network and e-mail accounts by GT. All BME students are also assigned accounts by EU. As students are required to check official e-mail regularly, it is suggested that BME students have all mail forwarded to one account or the other. See the Campus & Building Resources section of Appendix B for links to the Information Technology departments for both institutions.

Designated computer labs and wireless access are available on both campuses. For physical access, the Administrative Staff should be contacted. For technical access and support, the Technology Staff should be contacted.
COPIES

Photocopiers are available for student and faculty use on both campuses. Use of the copiers is restricted to official BMED business only. All copiers require an access code available from either the Faculty Advisor (for lab copiers) or Administrative Staff (for general building copiers). Copying entire books or theses is prohibited. At GT, copiers outside the labs are located in UAW in the 2nd Floor Mailroom and in the 3rd Floor lounge area. At EU, a copier outside the labs is located in WMB 2001. Students whose labs are in buildings other than UAW and WMB should use copiers in those buildings.

DESK/OFFICE SPACE

Desk or office space is available for most full-time graduate students. Assignments are made by the BMED Administrative Staff.

FAX MACHINES

Fax machines are available for official BMED use at GT in the 2nd Floor Mailroom of UAW or Academic Office suite and at EU in WMB 2001.

FINANCES

See Chapter 4 for details on financial policies and procedures.

HEALTH INSURANCE

All students are required to show proof of health insurance in order to enroll in the program. Students without independent health insurance (e.g., parent/family policy) must enroll in one of the two institutions’ plans. Typically, students choose the GT health insurance plan. Students must follow the insurance waiver process at the school for which they do not enroll or at both schools if independent health insurance is used.

Details on the GT health insurance plan are available via the Health Services office with most students being required to enroll in the “Mandatory” plan. Students are responsible for payment of GT health insurance via the tuition and fees process. The GRA stipend offered with admission is intended to help offset this cost along with other living expenses.

NOTE: MD/PhD students must enroll in EU health insurance unless otherwise covered by an independent policy. Also, some students
receiving fellowships may not be eligible for payment of health insurance costs depending on the terms of their fellowships.

IMMUNIZATION RECORDS

All students whose primary institution of record is GT are required to show proof of immunization. The Heath Services department is responsible for collecting this information and places registration holds on all students until the requirement is fulfilled. Particular forms are required and are available from the Health Services department.

INTERNATIONAL STUDENTS

Due to US immigration policies, there are a number of business items including (but not limited to) maintaining proper Visa status, obtaining Social Security Numbers, and rules for international travel that students must be aware of and comply with. The GT Graduate Admission Office and BMED Graduate Program Coordinator work in conjunction to produce and send initial immigration documents (such as the I-20) to new international students. Afterwards, the GT OIE is the primary source for information and assistance for international students. Students may occasionally need departmental documentation of current academic status for travel purposes and this may be obtained from the Graduate Program Coordinator.

MAILBOXES

BME program students are assigned departmental mailboxes in UAW. Mailboxes are located on the first floor in the corridor near the Engineering Science & Technology building. The mailboxes are for official business use only and are not to be used for personal mail. (Personal mail should be sent to students’ campus or home addresses.)

Students are responsible for checking their incoming mail regularly. Large packages should be sent to the student’s faculty advisor. Official outgoing mail requires a departmental postal slip available from and approved by an Administrative Staff person. Internal mail to/from either GT or EU may be sent via an interoffice mailer (available in the 2nd floor mailroom of UAW or from the EU Administrative Assistant) and is delivered approximately once per week.
NAME CHANGES

Students who legally change their names after enrollment, such as in the case of marriage, must notify all appropriate departments at both schools of the change. For the Department, students should contact the Graduate Program Coordinator. For the institutions, students should contact the Registrar and Human Resources offices at both schools.

PARKING

BME program students may have parking privileges on both campuses by paying only one annual parking fee at GT. BIOE students who are assigned to advisors at Emory may also have these privileges. Registration and payment for GT parking must be completed online at www.pts.gatech.edu. The Administrative Staff at GT provides a list of students to EU pursuant to the inter-campus agreement (see Appendix B for a link to the details). Afterwards, students may pick up Emory parking permits at the EU Parking Office.

PHONES

Telephones are available on each campus for official business only.

PURCHASING

Purchases of equipment, materials, and supplies should be coordinated through each research group’s designated supply person. All purchasing requests require a faculty member’s approval and the appropriate account number or procurement card number. Purchases of $1500 or more and of restricted items such as radioactive materials, hazardous chemicals, and animals must be made using a purchase requisition. For further details, contact the research group’s designated supply person.

RECYCLING

Both GT and EU have campus-wide recycling initiatives. All faculty, staff, and students are strongly encouraged to recycle materials whenever possible. Receptacles are available on both campuses. See http://www.recycle.gatech.edu/ and http://www.fm.emory.edu/recycling/index.html for details.
ROOM RESERVATIONS

Classrooms and conference rooms are available on both campuses for proposals, defenses, meetings, and student organization events. See http://www.acad.bme.gatech.edu/general/room.php for details.

SAFETY GUIDELINES

All BMED personnel with laboratory access are required by the University System of Georgia’s Board of Regents to complete online “Right-To-Know” safety training on an annual basis. New students, faculty, and staff must complete the training and submit a certificate along with the required Building Access Authorization Form to the administrative staff before lab access is granted.

Additionally, the department requires annual Basic Lab Safety training that covers chemical safety, emergency procedures, and basic waste handling procedures. In most of these classes, blood borne pathogens are also covered. Typically, these classes are offered in August prior to the start of the fall term and are arranged by the GT Office of Organizational Development.

SHUTTLE SERVICE BETWEEN CAMPUSES

The GT/Emory Shuttle transports students, faculty, and staff between the GT and EU campuses. A complete schedule and description of stop locations are found online via the Parking & Transportation website (see link in Appendix B).

STUDENT IDS

BME program students may obtain student identification cards from both institutions. The BuzzCard (GT) and EmoryCard (EU) provide official identification, building access, and the ability to pay for services such as copies, dining, and entertainment. Instructions for obtaining a BuzzCard or EmoryCard are found online via the links in Appendix B.

TRAVEL

Students occasionally travel, most often to present research at conferences. For official business travel such as attendance at conferences, reimbursement of expenses may be available. There are several different sources of funding, including faculty advisor support as well as departmental and institutional resources such as the BMED Student Travel Funds and the GT Graduate
Conference Fund. Details on applying for travel award funds are found on the Academic Office website (see Appendix B).

The primary resource for a student regarding travel is the faculty advisor who will guide the student on budgeting, trip planning, and official policies and procedures. For any reimbursable activities, travel authorization paperwork must be submitted before the travel takes place. Upon return, official travel reimbursement forms must be submitted with original receipts.

VACATION

Graduate students are considered temporary employees of GT and thus not eligible for benefits (e.g., accrued time off each month, employee insurance, FMLA). However, students may take advantage of two weeks (10 business days) of vacation and the ten days of official institutional administrative holidays during each 12-month period of residency. Semester breaks and periods between terms are not automatic vacation days. Vacation and any special (unpaid) leaves must be approved well in advance by the faculty advisor.
CURRICULUM

BME PROGRAM

The BME program curriculum is designed to offer flexibility. The specific goals of the curriculum components are (1) to leverage our expertise in teaching methodologies, such as problem-based learning, that are a model to other departments internationally, (2) to facilitate adequate depth of knowledge acquisition in areas critical to each student’s thesis research, and (3) to provide advanced graduate courses in the areas of research in which the department faculty excel. The BME-PKU program curriculum is modeled after the BME program curriculum and has additional requirements including a year of residency at the secondary campus.

The curriculum will facilitate individual flexibility and depth of study through coursework selected by the student (and thesis advisor) in specific categories as follows:

- BME Integrative Core Series (two courses required = 6 hours)
- Engineering/Bioscience Fundamentals (18 hours minimum)
- BME Advanced Graduate Seminar (one 3-hour course required)

Additional course requirements include:

- Ethics Training: JPE600 AND JPE610 (at Emory=0 hours). Remaining RCR requirements are fulfilled within other courses within the curriculum (BMED 7002, BMED 7011/7012/7013)
- Teaching Series TATT 600 (at Emory=1 hour), BMED7002 and BMED7003 (at GT=1 hour each)
- Seminar Participation Series (4 hours)
- Thesis Hours (variable)
- Secondary Institution Placeholder(s)
- Minor (9 hours): This GT requirement is typically met using courses in the Engineering/Bioscience Fundamentals category.

The resulting total minimum number of required hours is 34. It is anticipated (although not required) that students may take other elective coursework to fulfill the requirements of their individual research projects and/or training grants.
According to GT College of Engineering requirements, students must carry a total of 21 hours in the fall and spring terms and 16 hours in the summer terms. The variable Thesis hours are used to supplement actual courses to meet these minimum totals.

Course Information

Details on all BMED courses, including course numbers, sample syllabi, and projected offerings by semester, are found on the Academic Programs/Graduate section of the department's website.

BME INTEGRATIVE CORE SERIES (Course numbers vary)

This component will introduce students to the open-ended, problem-solving environment that is central to their success in a PhD program. Each course will be co-taught (ostensibly by an “engineer” and a “bioscientist”) and will focus on a particular topical area. Students will—in the context of that topical area—address fundamental technical issues, critically read and evaluate literature, pose well-developed research questions that can be addressed by either experimental or modeling approaches (or both), and understand the importance and limitations of these approaches. In each of these courses, 1.5 hours will be dedicated to ethical issues in the topic area related to science and engineering in society. As a group, the three courses will span the research areas of our program and the organizational hierarchy from molecular to organismic. Each student will select two of these courses that fit her/his interests, and typically will take these courses in the Fall and Spring semesters of the first year in the program.

ENGINEERING/BIOSCIENCE FUNDAMENTALS (Course numbers vary)

This component focuses on the learning of fundamental knowledge in engineering, in bioscience, and at the intersection of the two. These courses will be delivered both by the Coulter BME Department and by other engineering and bioscience programs/departments at Georgia Tech and Emory (building on the complementary strengths of the two institutions). Although various teaching methods may be used, it is expected that most of these courses will follow a more traditional lecture-based format. The minimal requirement in this category is 18 semester hours total between engineering and bioscience. At least one of the engineering courses should be a “traditional engineering” course (such as those taught by ME and ECE) and the interdisciplinary Bioengineering Program’s approved list of courses may be used as a reference for acceptable courses in this area. (See the Handbook on the Bioengineering website at www.bioengineering.gatech.edu.) Eligibility of all courses for this category will
be based on proposals by the faculty research groups in the BME Program and on approval by the BME Graduate Committee.

**BME ADVANCED GRADUATE SEMINAR (Course numbers vary)**

This component will provide students with in-depth study in a research area within the BME Program. Each course will require prerequisite material from both the Engineering and Bioscience Fundamentals. Each course and its prerequisites will be defined by one of the BME faculty research areas. The courses will not be lecture-based, but instead will focus on the reading and analysis of literature in the research area, building upon the skills learned in the Integrative Core courses. Students will be expected to present papers to the class and will be required to produce a “product” (e.g., research proposal, in-depth analysis of a set of papers) at the end of the semester. Each student must take one of these courses and will be encouraged to select that course prior to the start of the first year in order to meet the prerequisite requirements.

**SEMINAR PARTICIPATION SERIES (BMED 7001)**

First and second year students are required to register for the BMED 7001 seminar course in the Fall and Spring semesters. (This course is not offered in the Summer semesters.) The requirement of this course is attendance at a minimum of seven seminars during the term. The choice of which seminars to attend is based on advice provided by the student’s advisor. Seminars which will fulfill the attendance requirement must be hosted by GT, EU, or Georgia State University. Four of the seven seminars must be sponsored by BMED or IBB/BIOE.

A Seminar Participation Form documenting the seminar titles, dates, and host institutions must be completed by the students, signed by their advisors, and submitted to the Graduate Program Coordinator at the end of each term (the specific date will be announced by the Coordinator) in order for the students to receive Satisfactory (S) grades in the course.

**NOTE:** A student who forgets to register for the course will not be able to apply attendance from one term to a future term’s registration. A student who registers but fails to submit the completed and approved participation form will receive an Unsatisfactory (U) grade.

Students in the third year and beyond are not required to register for the seminar course, but are strongly encouraged to attend seminars on a regular basis. The seminars provide students with exposure to a variety of research subjects and a diverse pool of speakers from academia, government, and industry. Attendance is also a great opportunity for students to interact with faculty and students from other departments and programs.
TEACHING SERIES (TATT 600, BMED 7002, BMED 7003)

Teaching is considered an integral part of the educational experience and is a requirement of the program (doctoral students serve as a Teaching Assistant or TA for two semesters/master’s students serve as a TA for one semester). The Director of Graduate Training makes teaching assignments during the previous summer.

A series of training courses and workshops are required to coincide with the student’s time as a TA, typically the Fall and Spring semesters of the second year in the program. The initial training falls under Emory’s TATTO Stage I (TATT 600, registered for via OPUS) and consists of a 2-day workshop in late summer just before the Fall term begins. Students must also register for BMED 7002 and BMED 7003 (via OSCAR) during their first and second terms as TA, respectively. This series of classes will provide students with instructional and application-oriented teaching training, as well as provide information relevant to academic life. Eight hours of in-person RCR training will also be incorporated into the BMED 7002 course.

**Teaching Assistant Roles & Responsibilities**

Teaching Assistants are course assistants primarily for undergraduate courses. A Teaching Assistant (TA) assignment may include an appropriate range of supportive activities such as: assisting the faculty member with the preparation of course materials and/or laboratory demonstrations; attending the faculty member’s lectures, laboratory instruction periods, and/or scheduled instruction periods in non-traditional formats; grading student papers and examinations; holding office hours; giving tutorial or small group assistance to students; teaching in scheduled or unscheduled recitation, discussion, quiz, or laboratory sections for the faculty member in charge.

Teaching Assistants should not be expected to devote more than an average of ten hours weekly to their duties over the semester. Because actual practice in the designation of duties will vary according to the needs of each course, it is imperative that these ten hours per week average be observed in order to accommodate the TA’s own schedule as a graduate student. Instructors and TAs should trade-off responsibilities to remain within this hourly limit on average. The TAs should expect that some weeks will require more than ten hours due to course setup, grading, or other course demands. Instructors should try to balance heavy weeks with lighter ones.

It is the Instructor’s responsibility to discuss with the TA all elements of the course (including, for example, the amount of grading, the number and character of quizzes, exams, and papers, lecturing, provisions for office hours and review sessions). The Instructor should also advise the TA on a
regular basis as to how class preparations and grading may be done most effectively and efficiently. Finally, the Instructor is responsible for supplying each TA copies of all assigned materials, including books.

Where a TA is assigned to a recitation or laboratory section, the Instructor should attend the section early in the semester to observe the TA's work. A follow-up critique should convey to the TA his or her strengths and weaknesses. This critique might be written or oral but in any event offers a valuable occasion for enhancing the teaching ability of the graduate student.

When a TA believes that he or she is being asked to perform duties beyond those specified above or when the TA or Instructor is experiencing unusual difficulties in the work relationship, they should consult the Associate Chair for Graduate Studies. Such talks will be informal, information will be treated as confidential, and, when indicated, the Associate Chair will seek a mediated resolution. Should these discussions not result in a satisfactory solution, any and all participants may refer the matter to the Chair of the Department.

ETHICS TRAINING (JPE 600, BMED 7002, BMED 7011/7012/7013)

This training fulfills the GT Responsible Conduct of Research (RCR) and Emory Jones Program in Ethics (JPE) requirements that are mandatory for all graduate students.

JPE600 is required for all students in the Laney Graduate School at Emory and is taught in a one-day session by multiple speakers. It provides a broad historical and philosophical overview of ethics, identifies key ethical issues students are likely to face throughout their careers, presents the role of ethics in research and professional practice, and through case studies helps students develop a process for evaluating ethical issues. The course has 6 hours of course content. Students must attend the entire course in their first year to receive credit. Fulfillment of the course is recorded directly on the student’s Emory transcript and is necessary for graduation.

The remaining ethics training requirements are structured within the curriculum of BMED 7002 (Teaching Practicum I) and the Integrative Core Courses (BMED 7011/7012/7013). BMED 7002 will include eight hours of in-person training, including the required RCR topics of authorship and publication, collaborative research, conflict of interest, data acquisition/management/ownership/sharing, peer review, policies regarding the use of human subjects and vertebrate animals in research, and the responsibilities of mentors and mentees. The Integrative Core courses will include 1.5 hours each of in-person RCR training in appropriate topical areas. Students must take two of these courses, for a total of three additional hours of RCR training.
In addition to this series of ethics training, all students are required to complete online RCR training within the first 90 days of enrollment. This training is offered through the Collaborative Institutional Training Initiative (CITI).

**THESIS HOURS (BMED 7000 or 9000)**

In addition to any specific courses, all students must enroll in a Master’s Thesis (BMED 7000) or Doctoral Thesis (BMED 9000) section associated with their faculty advisors. (New students without advisor assignments are instructed during orientation on which section to enroll.) The Thesis sections, which are variable hours, are used for registration purposes to indicate the amount of time spent on research. In the beginning stages of the program, a student uses the Thesis course to provide the balance of credit hours between specific courses and the total required each term (21 for Fall and Spring; 16 for Summer). During the latter stages when specific coursework is complete and in the Summer terms (when no specific courses are offered), a student registers only for Thesis hours.

**SECONDARY INSTITUTION PLACEHOLDERS**

**EMORY (BMED 599R, 799R, or 9999R):** Atlanta students who are based in Emory labs must use BMED 599R (before PhD candidacy) or 799R (after PhD candidacy) each term as the variable hours course to ensure they have a total of 9 credit hours. In order to keep student status active at Emory, students from GT & PKU labs must register for the BMED 9999R placeholder course every semester whenever they are NOT taking actual courses at EU.

**GEORGIA TECH PLACEHOLDER (BMEJ 9999A):** Beijing-based PKU students must register for the BMEJ 9999A placeholder course every semester whenever they are NOT taking actual courses at GT.

**PEKING PLACEHOLDER:** Atlanta-based PKU students do not need to register for a placeholder course at Peking University. Administrative staff on that campus will ensure that these students have appropriate documentation for each semester.

**MD/PHD GT PLACEHOLDER (BMEM 6001):** New MD/PhD students should use the GT placeholder of BMEM 6001 as the variable-hours course to supplement any actual courses taken to reach the minimum total hours required each term until they are officially matched with a thesis advisor. Afterward, they should register for actual courses and the individual advisor’s thesis hours section (BMED 9000). They should also register for BMED 9000 on the Emory side.
Minimum GPA Requirement

Students are required to maintain a minimum cumulative GPA of 3.0 (non-rounded) in graduate level coursework in order to take the Qualifying Exam. A student with less than 3.0 may either be dropped from the program or allowed to complete a terminal master's degree, if supported by the faculty advisor.

Registration Procedures

See Chapter 8 for registration details.

MASTER’S DEGREES

All students in BMED are admitted to programs with the expectation of completing doctoral degrees. Under special circumstances and with the approval of the faculty advisor and Associate Chair for Graduate Studies, a student may opt to complete a master’s degree. Completion of all requisite coursework, appropriate research, a thesis, and thesis defense are required.

Slight differences in registration, program milestones, and degree completion steps exist for Master’s students. See the following chapters for details.

*NOTE: Should a student who has completed a BMED master’s degree later wish to pursue a BMED doctoral degree, the student must be considered for readmission by the Graduate Admission Committee to determine eligibility.*

PKU PROGRAM

The PKU program is similar to the BME program on the Atlanta side, but does have some different forms and processes that go through a joint Atlanta-Beijing PKU Graduate Committee. Please consult with the Graduate Program Coordinator or Director of the PKU program with questions.

Language Requirement

Students that matriculate first on the Beijing campus must show English proficiency via the TOEFL requirement during the admission process. Students that matriculate first on the Atlanta campus must complete the Chinese language requirement by completing the GT CHIN 1001 course by end of second year with a minimum grade of B. These students are encouraged to take further CHIN courses. Students may exempt the course requirement by contacting the GT
Modern Languages department for an assessment early in the first term of enrollment. Results of the assessment will be sent via e-mail to the Graduate Program Coordinator. The course(s) to be taken or notation of exemption should be noted on the Program of Study that is due at the end of the first term.

Ethics Series

Students that matriculate first on the Beijing campus must complete the GT & Emory Ethics Series upon enrollment at the Atlanta campus. Depending on availability of course offerings, either PHIL 6010 or PHIL 6000 may be completed.

ASSOCIATED DEGREE PROGRAMS

As the associated degree programs (BIOE, BINF, CSE, ROBO) are interdisciplinary and have their own structure, the details on curricula and program milestones can be obtained from the individual program handbooks and leadership.

MD/PhD Curriculum

Due to the coursework completed during the initial phases of medical school, slight differences may exist in the BME program curriculum for MD/PhD students. Ultimately all requirements of the BME curriculum must be completed, but some medical school courses may apply toward the Engineering/Bioscience Fundamentals category. These should be reflected on the Program of Study and are subject to the approval of the BME Graduate Committee.

MD/PhD students in one of the other programs should consult with the leadership of those programs for details on curriculum.
REGISTRATION

BME PROGRAM

The following information pertains primarily to the GT/Emory BME program. Slight differences exist for the PKU BME program and some detail on that program is documented in this section.

Tuition & Fees

Students in the BME program have their tuition and fees assessed by GT or Emory depending on where the advisor’s lab is located. Each student is personally responsible for the balance shown in his/her OSCAR or OPUS account, including the resolution of any charges that may be handled through another mechanism depending on the terms of a student’s funding status (e.g., the application of a GRA tuition waiver – see Chapter 4 on Finances for more information).

BMED Courses

Students in the BME program have full student status at both institutions and therefore may register for courses at each school. Because GT is considered the primary institution for most students, all actual BMED courses are listed in and registration is completed via the GT OSCAR system (see Appendix B for the internet link). To maintain active student status at the secondary institutions, students must register for the appropriate placeholder courses described in Chapter 7.

For the PKU program, students have full status at all three institutions and may register for all actual courses via the corresponding institution. They must be registered for placeholders at the secondary institutions whenever actual courses are not being taken at those schools.

All course selections should follow the selected Research Area Track and the approved Program of Study.
Non-BMED Courses

Students register for courses in other GT and EU departments as appropriate by using OSCAR and OPUS, respectively.

Course Load Expectations

All students are expected to maintain full-time status each term (including summers) unless special circumstances arise and are approved. For the Fall and Spring terms, students must register for a total of 21 hours in OSCAR with the Thesis course—which is a variable hour course—making up the difference between specific courses and the total required. For the Summer terms, students must register for a total of 16 hours in the Thesis course (also in OSCAR) as no other courses are offered during the summer term. Students must register for the appropriate number of hours each term in order to fulfill the terms of their Graduate Research Assistantships (GRAs) and/or Fellowships and ensure proper payments. See Chapter 5 for more information on finances.

COURSE LOAD IN FINAL TERM OF PROGRAM

During the semester in which a student plans to graduate, there are several registration options. Some options are dependent on the deadlines of the Registrar’s and Graduate Studies offices for submission of theses and other final paperwork. The student should consult with both the faculty advisor and Graduate Program Coordinator—in accordance with the Guidelines for Registration & Payment in the Term of Graduation in Chapter 9—to determine which option is best.

Registration Calendars & Deadlines

Important dates including the timelines and deadlines for registration each term are found on the Registrar websites for both schools. (See Appendix B for links.) Students are responsible for registering via the appropriate system or person in a timely manner (ideally during the first phase of registration for continuing students) and before the final deadline.

Improper Registration or Failure to Register

The Registrar’s Office is strict with regards to registration deadlines and fee payment. Late fees and problems with applicable tuition waivers (i.e., being charged full tuition and fees) associated with improper registration are the responsibility of the student. Failure to register altogether may result in a student having to petition the Institute or losing status for the term (including
loss of stipend). Failure to register properly in the final term of enrollment may also prevent a student from graduating.

MASTER’S STUDENTS

With the following exceptions, master’s students must complete and therefore register for the same coursework as doctoral students.

TATTO: Master’s students are required to complete one semester of teaching (TA) responsibilities. Thus, they need only to register for TATTO I & II.

THESIS HOURS: Master’s students must carry the same total course load each term as doctoral students, but must register for BMED 7000 Master’s Thesis hours (versus BMED 9000 Doctoral Thesis).

ASSOCIATED DEGREE PROGRAMS

Students in the associated degree programs (including MD/PhD students with a major other than BME) are considered GT students only and thus use OSCAR for registration. Students interested in non-BMED courses at EU must apply through the cross-registration program (Atlanta Regional Council for Higher Education or ARCHE). Only courses that are not taught at GT are eligible and details on the ARCHE program can be found on the GT Registrar’s Office website.

MD/PhD Students in the BME Program

Students in the MD/PhD program that have chosen BME as a major are considered joint students and thus have privileges at both institutions. However, Emory is considered the primary school for these students.

MD/PhD students should register directly in both schools’ systems (EU-OPUS and GT-OSCAR) for the desired actual courses at each school. Upon first enrollment at GT for lab rotations, students should register for BMEM 6001 in OSCAR (16 hours in summer, 21 hours in fall & spring) and for BMED 9000 in OPUS. Once matched with the advisor, a student should register in OSCAR for any actual GT courses using the section of BMED 9000 for the particular advisor as the variable hours course in each system to meet the minimum total hours (GT-16 in summer or 21-fall/spring) and for the one general section of BMED 9000 in OSCAR. The MD/PhD program may require other courses on the Emory side and that program’s office should be consulted for details.
INTERNATIONAL STUDENTS

US immigration rules dictate various enrollment options for international students. To ensure that international students never fall “out of status” in terms of their visa types, they should consult with the Office of International Education (OIE) for all possible exceptions to full-time (16 or 21 credit hours) enrollment. International students should also consult with OIE about employment options that coincide with reduced enrollment.
PROGRAM MILESTONES

The degree of Doctor of Philosophy recognizes proficiency and high achievement in research. After adequate preparation, the degree candidate must complete a searching and authoritative investigation of a special area in the chosen field, culminating in a written thesis covering that investigation. The thesis must be either an addition to the fundamental knowledge of the field or a new and better interpretation of facts already known. It must demonstrate that the candidate possesses powers of original thought, talent for research, and ability to organize and present findings.

The requirements for each student in the doctoral programs in BMED include satisfactory completion of a set of core courses in science, engineering, and mathematics (see Chapter 6 for curriculum details); passing a comprehensive qualifying examination; and completion of a doctoral thesis/dissertation with oral defense in accordance with Institute policies. Each student must also complete an academic minor.

This section outlines the major steps or milestones that each student must complete in order to progress towards completing a degree. Official forms are associated with most of the milestones. See Appendix C for sample forms and Appendix D for a chart of the expected timeline for completing the milestones.

BME PROGRAM

Student/Advisor Matching

For all students who were not designated specific faculty advisors with their offers of admission, the matching process occurs between matriculation and mid-September of Year 1. Students are required to interview a minimum of four faculty members and then submit a form indicating their top preferences for choice of thesis advisor. Students who participate in the optional summer lab rotations must also complete this process. Faculty members also submit their lists of preferences for students. The Associate Chair for Graduate Studies and relevant associated program directors review both sets of lists and make the official matches, with every effort made to secure top preferences. Typically, one-
to-one matches of student and faculty top choices are made. When 100% of one-to-one matches cannot be made (due to space, funding, or other limitations), consideration is first given to the students’ top choices.

Program of Study

The Program of Study form is due by December of Year 1 in the program. After consulting with his or her thesis advisor and the requirements set forth in the chosen research area, it is the student’s responsibility to complete the form—which includes listing proposed courses for the fundamentals area, the electives, and the minor—and submit it to the Graduate Program Coordinator. The Graduate Committee reviews each student’s form and students receive notification of approval or required changes via e-mail.

Students in the PKU program must complete the Chinese language assessment (see Chapter 6 for details) in the first semester prior to submitting the proposed Program of Study.

Qualifying Examination

The Qualifying Examination (QE) is taken May of Year 1 in the program. Students must meet the minimum GPA requirement of 3.0 in order to take the exams.

EXAM PHILOSOPHY

The exam is structured to assess: the student’s ability for independent thinking and decision making; knowledge and integration of engineering and biological concepts; and the application of this knowledge to interdisciplinary biomedical engineering problems. Although the exam will not be course specific, it will be tailored to the student's background, prior coursework, and general research area. The exam emphasizes the student's ability to integrate bioscience and engineering concepts to solve problems related to biomedical engineering. The committee will evaluate the correctness of the students' responses as well as judge the overall level of breadth, depth and integration of the students' responses. Clarity and conciseness of the presentation of responses is very important.

EXAM COMMITTEE

The exam will be an oral examination administered by a faculty committee consisting of three BME Program Faculty members with broad expertise in areas of traditional engineering, biological sciences and bioengineering. A faculty member who is new to the program will observe an exam before serving on exam committees. The BME Graduate Committee will appoint the Qualifying Exam
Committee based on the student's background, prior coursework, and research area.

The thesis advisor is encouraged to attend the exam as an observer. S/he may not make comments during the exam, unless requested to do so by a committee member. The thesis advisor will not be present while the committee is making its final decision on the student's Qualifying Exam performance.

GUIDELINES PRIOR TO THE EXAM

Each student will provide an Academic Profile & Honor Code Pledge provided by the Graduate Program Coordinator. The profile provides a description of academic background and research area. The completed student paperwork, copies of current transcripts (Georgia Tech and Emory), Evaluation Rubrics, and the Decision Form will all be given to the committee by the program coordinator prior to the exam.

The Chair of the committee will request (via email) initial exam questions or areas of questioning from the committee members. It will be the responsibility of the Chair to ensure that questions are fair and cover the intent of the exam. The chair should ensure that the questions are appropriate given the student’s research to date and coursework to date. These should be distributed to the committee members before the exam.

If a member of the committee will be serving for the first time at a BME exam, the Chair of the committee will be informed and will contact the person to discuss the philosophy and procedures.

The student will meet with the exam committee Chair to discuss the philosophy of the exam, the mechanics of the exam and any other points the student or committee chair deem appropriate. The student may also meet individually with other committee members prior to the exam, although this is not required.

Neither the chair nor the committee members will discuss specific exam questions with the student.

GUIDELINES THE DAY OF THE EXAM

It is the student’s responsibility to bring extenuating circumstances (such that the exam should not be held) to the chair’s attention before the exam begins.

The chair may allow the student to introduce her/himself briefly to the committee. The committee will also meet alone briefly for a final discussion on the order and scope of the exam.

The questioning period will typically last 60–90 minutes, and sufficient time should be provided to each committee member to ask questions.
During the exam, the chair has the responsibility of ensuring that the exam proceeds on time and within scope.

The advisor’s presence is solely to ensure that the student received a fair examination. The advisor should not volunteer any information nor ask any questions unless it relates directly to the conduct of the exam.

There will be a pass / no-pass vote taken by the committee. It can be an open vote, but must be a secret ballot if requested by any committee member. This vote is binding and conducted by the Chair. The voting must take place prior to the exam committee’s adjournment.

The Chair of the exam committee has the discretion to limit the length of the committee’s discussions.

Each committee member must complete an evaluation form with appropriate comments at the end of the exam. The exam chair is expected to deliver the evaluations to the program office.

EXAM RESULTS

PASS: If the vote is 3/0 or 2/1 in favor, the student passes the exam. The committee may make recommendations or conditions along with the pass. Details of the recommendations or conditions (see note below) should be recorded on the Decision Form.

NO PASS: If the vote is 1/2 or 0/3 and the exam is being conducted for the first time for that student, the student must retake the exam. The committee will summarize its decision and detailed recommendations or conditions (see note below) on the Decision Form and via a supplemental memo to the Associate Chair for Graduate Studies, if desired. In most cases, the same committee will administer the retaking of the exam and will do so within 3 months.

RETAKE: A student may retake the exam only once. At the time of the retake, the student must meet the GPA requirement and otherwise be in good academic standing. Retakes should be scheduled as early as possible contingent upon readiness of the student and meeting any conditions. The committee may vote to pass the student outright or with recommendations or conditions (see note below). If the committee votes to fail the student, the student may elect to complete an MS (with thesis) or be withdrawn from the program.

Recommendations and Conditions:

The exam committee may make recommendations (not strictly required) or conditions (required) based on its interpretation of—and with direct relevance to—the student’s performance relative to the exam philosophy.
outlined above. Recommendations and conditions are subject to the review and approval of the Associate Chair for Graduate Studies.

The Graduate Program Coordinator will be responsible for tracking completion of any required conditions. Successful completion of the conditions will be required for the student to progress in the doctoral program.

NOTIFICATION & DOCUMENTATION OF RESULTS

Students and their faculty advisors will be notified of the exam results in writing via letter from the Associate Chair for Graduate Studies. All students who pass will be encouraged to follow up with their exam committee chairs to debrief. A student who does not pass will meet with the Associate Chair, exam committee chair, and thesis advisor to discuss the results and make appropriate plans for the student’s next steps.

All exam documentation—including student paperwork, exam notes and decisions, and official result letters—will be kept in the student’s file in the department’s Academic Office. This file is not considered the student’s official record with either of the two institutions and thus is not available for open access to the student.

Thesis Committee Approval

All students must submit a list of proposed thesis committee members by May of Year 2 in the program, provided that the student has successfully passed the QE. Students should contact their proposed committee members for their individual approvals prior to submitting the Request for Approval of Thesis Committee form. The form must then be completed by the student, signed by the faculty advisor, and submitted to the Graduate Program Coordinator for review by the Graduate Committee. The list of proposed members must be accompanied by a short justification of committee makeup and short-version Curriculum Vitae of 2-3 pages (such as the NIH Biosketch format) for all non-BMED members (see below). After approval is obtained by the Graduate Committee, the form is kept in the student’s file in the Academic Office.

A doctoral student’s thesis committee must consist of at least five members (including the advisor). The primary advisor or one of the co-advisors must be on the BMED Program Faculty. Three of the thesis committee members must be on the BMED Program Faculty (“inside BMED”). One member must have no affiliation with the Department of Biomedical Engineering (“outside BMED”)—neither Primary nor Program Faculty member—and will preferably be from a biosciences area of GT, EU, or a collaborating institution. The fifth member may be inside or outside BMED.
If a student has an official faculty co-advisor, the co-advisor has the same responsibilities and privileges as the other committee members. However, the co-advisor cannot be counted as one of the five required members of the thesis committee. (Note: The co-advisor of a student in the BME-PKU Program can count as one of the five committee members)

All thesis committee members should be active faculty or medical doctors with academic research and supervision experience. Industry professionals may be suitable, but must be approved by the Graduate Committee. There should be a balance between “engineers” and “bioscientists” on the thesis committee.

Research Proposal

After forming the thesis committee and by December of Year 3 in the program, a student must make a formal presentation of the proposed research to the committee. The well-conceived proposal will help the student: (a) develop critical questions, (b) lay the foundation for research, (c) isolate pending problems and suggest actions to avoid them, (d) serve as a “road map” for the research, and (e) think through the whole process, using an integrated approach. The proposal should contain a concisely-stated hypothesis. At the time of proposal, the student should be ready to move from perception and comprehension of critical questions to the resolution of the problem. A successful proposal presentation will reveal that the topic is appropriate and outline a plan for the research. While the proposal represents the beginning of the research, a well thought out plan should serve to guide the student and minimize problems later in the process.

FORMAT OF THE WRITTEN PROPOSAL

PART I: Cover Sheet

The cover sheet for the proposal should be the GT Request for Admission to PhD Candidacy form. (See below.) The Thesis Topic Title should be brief, scientifically and technically valid, understandable to a scientifically literate reader, and suitable for use in the public press. The Brief Description should be a 200-word summary and a self-contained description of the proposed activity. The summary should be written in the third person and include a statement of objectives, methods to be employed, and the significance of the proposed activity to the advancement of knowledge. It should be informative to other persons working in the same or related fields, and insofar as possible, understandable to a scientifically literate reader.

PART II: Table of Contents

A table of contents is required and should show the location of each section of the proposal as well as major subdivisions of the project description, such as the summary of previous work and methods/procedures to be used.
PART III: Project Description (Limited to 25 pages)

The proposal should be written in a format similar to that of a National Institutes of Health (NIH) R01 grant application (PHS 398, available at http://grants.nih.gov/grants/funding/phs398/phs398.pdf). The following description is adapted from PHS 398, section 5.5.

The main body of the proposal should be a clear statement of the work to be undertaken and should include (a) objectives for the proposed research and expected significance, (b) relation to longer-term goals of the investigator’s project; and relation to the present state of knowledge in the field, to work in progress by the investigator under other support, and to work in progress elsewhere; and (c) a general plan of work including the broad design of activities to be undertaken; an adequate description of methods and procedures; and if appropriate, plans for preservation, documentation, and sharing of data, samples, physical collections, and other related research products.

Specifications of the Project Description:
1. The project description must not exceed 25 single-spaced pages.
2. Visual materials, including charts, graphs, maps, photographs, and other pictorial presentations are included in the 25-page limit.
3. Pages should be of standard 8.5 x 11in-size with 1in margins at the top, bottom, and sides.
4. The type size must be clear and readily legible, in standard 11 point font size.
5. Pursuant to the Metric Conversion Act of 1975, as amended by the Omnibus Trade and Competitiveness Act of 1988, the proposal is required to use the metric system of weights and measures, unless impractical or inefficient.

SPECIFIC AIMS

State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved.

List succinctly the specific objectives of the research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology. Specific Aims are limited to one page.

BACKGROUND

Include a brief literature review describing the current state of your proposed field of study to readers. A well-selected thesis committee will include members from a spectrum of backgrounds, so it is critical to provide a starting set of knowledge to provide context for your proposed project.
PRELIMINARY STUDIES

Describe the results of all relevant pilot studies performed by yourself or your lab that are relevant to the proposed research plan. Like the Background section, clear and concise description of preliminary work is essential to inform all committee members of your research’s progress in the context of the field. Pilot studies are helpful as a proof of concept that you can successfully perform the research you propose but are not essential to perform a thesis proposal.

RESEARCH DESIGN & METHODS

Organize the Research Strategy in the specified order and using the instructions provided below. Start each section with the appropriate section heading—Significance, Innovation, Approach.

Address the following for each specific aim:

(a) Significance/Rationale
- Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
- Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
- Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.

(b) Innovation
- Clearly and concisely state the hypothesis or, in cases of specific aims with design goals that are not well posed as hypotheses, the objective.
- Explain how the application challenges and seeks to shift current research or clinical practice paradigms.
- Describe any novel theoretical concepts, approaches or methodologies, instrumentation or intervention(s) to be developed or used, and any advantage over existing methodologies, instrumentation or intervention(s).
- Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation or interventions.

(c) Approach
- Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted.
- Summarize your expected results from these studies. If the project is in the early stages of development, reference any preliminary studies performed to establish feasibility, and address the management of any high risk aspects of the proposed work.
- Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
SUMMARY

Include a brief summary of the work you have proposed.

TIMELINE

To help your thesis committee and yourself visualize the anticipated progress of your work, include a timeline describing projected completion dates for specific aims and other milestone accomplishments. You are not bound to follow this timeline, as unforeseen challenges abound in scientific research, but careful consideration of this timeline will assist you in developing a reasonable, achievable plan for your thesis.

ETHICAL ASPECTS OF THE PROPOSED RESEARCH

All biomedical research requires ethical consideration. Research methodologies often include human or animal subjects, and many procedures involve Select Agents identified by DHHS and the USDA. Research with potential for commercialization or taking advantage of intellectual property may require mitigation of conflicts of interest. A proper thesis proposal is not complete without consideration and acknowledgment of these ethical possibilities. Describe all ethical aspects of your proposed research and how you will address them (for example, through approval of the IRB or IACUC, as necessary). A more thorough description of ethical aspects is available in sections 5.5.6 – 5.5.11 of PHS 398 (http://grants.nih.gov/grants/funding/phs398/phs398.pdf).

PART IV: Bibliography

Citations must be complete, including full name of authors, title, and location in the literature. There is no page limit for this section of the proposal.

SCHEDULING THE PROPOSAL PRESENTATION

The student is responsible for surveying the thesis committee to establish a mutually convenient date and time for the presentation. The student must also reserve space and the necessary audio/visual equipment for the presentation with the assistance of the Academic Project Advisor for GT locations and the Emory Administrative Assistant for EU locations. The student should submit a copy of the proposal to all committee members at least two weeks prior to the presentation.

ANNOUNCING THE PROPOSAL PRESENTATION

Students must submit the details of the proposal presentation (date, time, location, committee members, title, and abstract) to the Graduate Program Coordinator via e-mail, at least two weeks prior to the scheduled presentation. The subject line of the e-mail should read “PhD Proposal Presentation: (Student Name).” The Coordinator will distribute an announcement inviting the department to the proposal.
PKU BME Project Initiation Form

Students in the PKU program (from both Atlanta and Beijing campuses) are required to submit a PKU BME Project Initiation Form to the Office of Sponsored Programs at the time of proposal. A copy should be submitted to the Academic Office with the Admission to Candidacy Form. See Appendix C for a sample form.

Admission to Candidacy

Immediately after successful presentation of the research proposal, a student must petition for admission to doctoral candidacy. This is done via the GT Request for Admission to PhD Candidacy form, which includes information about the thesis topic, verification of passing the qualifying exam, and signatures of all thesis committee members and the Associate Chair for Graduate Studies or Department Chair. A copy of this form is sent by the Graduate Program Coordinator to Emory in lieu of the EU Application for Admission to Candidacy.

Approval of Minor

GT policy dictates that all doctoral degree candidates complete an academic minor consisting of nine credit hours. The BME curriculum is designed to offer students flexibility such that a student can typically fulfill the minor requirement using courses in the Engineering/Bioscience Fundamentals category. A specific form available from the GT Graduate Studies & Research office is required to document the minor. This form must be completed and submitted to the Graduate Program Coordinator who will forward it to the Graduate Studies office on the student’s behalf (normally near the end of the program during the degree paperwork completion process).

Research Updates to the Thesis Committee

Students are expected to give regular updates to their thesis committees on the progress of their research. These updates may be accomplished via written and oral means and should occur at least once per year between proposal and defense during Years 3 to 5 in the program.

Degree Applications

As BME students near completion of their programs and are planning the final steps (i.e., completion of research and thesis defense), they must submit degree applications to both institutions. The GT form is called the Online Application for Graduation (OAG) and is accessible via the student’s OSCAR account. The EU
form is called the Application for Degree and is accessible via the student’s OPUS account or by paper form (found in Appendix C).

Deadlines vary between the two schools and the GT deadline always falls in the term that precedes the planned term of graduation. Thus, students must plan well in advance to ensure that the deadlines are met.

If after submitting the original application to GT, circumstances dictate that more time is needed to complete the program then the student may submit a “Reactivation” degree applications to GT for a future term. A new EU degree application for the new planned term of graduation must also be submitted.

Students should consider the options for registration and payment during the planned term of graduation at this stage. See the Guidelines for Registration & Payment in the Term of Graduation in Chapter 9 for details.

Thesis Defense

After adequate preparation, a candidate must complete a searching and authoritative investigation of the chosen field, culminating in a written thesis covering that investigation. An oral defense will be scheduled on the subject matter for the thesis and the field in which it lies. The defense includes two portions: an open presentation of the research/thesis and a closed question & answer session between the student and thesis committee.

It is expected that all students will defend their theses by the Spring term or early in the Summer term of Year 5 of the program. Careful attention must be paid to the institutional deadlines for thesis submission. The defense should be scheduled no later than one month prior to the submission deadline in order to leave ample time for edits required by the thesis committee.

FORMAT OF THE THESIS

Georgia Tech maintains a Thesis Manual via the Graduate Studies & Research Office website, which includes two important sections: “What You Have to Do to Graduate” and “Document & Format Guidelines.” The website also includes Forms and Deadlines sections. BME students should follow all GT guidelines for creating and submitting their theses. Copies of the final draft of a thesis must be submitted to EU after final approval from GT.

REQUIREMENTS FOR DEFENSE

In addition to determining with the faculty advisor that the student is ready to complete and defend the thesis, a student must submit the applications for degree by the published deadlines and be registered for the term in which the defense presentation occurs. (If an enrollment waiver is applicable, no
registration is required. See Chapter 9 for registration options for the last term of the program.)

SCHEDULING THE DEFENSE

The student is responsible for surveying the thesis committee to establish a mutually convenient date and time for the defense. The student must also reserve space and the necessary audio/visual equipment for the presentation with the assistance of the Academic Project Advisor for GT locations and the Emory Administrative Assistant for EU locations. The student should submit a copy of the preliminary draft of the thesis to all committee members at least two weeks prior to the defense presentation.

ANNOUNCING THE DEFENSE

Students must submit the details of the defense presentation (date, time, location, committee members, title, and abstract) to the Graduate Program Coordinator via e-mail, at least two weeks prior to the scheduled presentation. The subject line of the e-mail should read “PhD Defense: (Student Name).” The Coordinator will distribute an announcement inviting the department to the proposal.

FORMS NEEDED FOR THE DEFENSE

Students should prepare the following forms/documents to take to the defense presentation: GT Certificate of Thesis Approval for Doctoral Students, EU Report of Completion of Requirements for Doctoral Degree, and two copies of the EU Dissertation Approval form that serves as the cover sheet for the final draft of the thesis. All forms are available via the GT Graduate Studies & Research and EU Graduate School websites.

AFTER FOR THE DEFENSE

Students should submit the GT Certificate of Thesis Approval and EU Report of Completion of Requirements to the BME Graduate Program Coordinator as soon as all committee member and advisor signatures are obtained. The GPC will obtain departmental approval.

Students should also submit their plans for the next career step via email to the GPC at this time.

Degree Completion Steps & Final Paperwork for Graduation

It is expected that doctoral students will graduate by the Summer of Year 5 in the program. See Chapter 10 for detailed information.
PKU PROGRAM TRAVEL TO SECONDARY CAMPUS

Students in the PKU program generally follow the same curriculum and milestones as the BME program students. However, students in this program are required to obtain co-advisors on the secondary campus with which to collaborate on their research projects. The students will travel to the secondary campus to work with their co-advisors for at least one year. The timing is generally expected in the third year of the program after coursework is completed and qualifying exams are passed. But the ultimate decision should be made between students and advisors/co-advisors as appropriate to the progress of the research.

Students must plan their departure and return time tables to coincide with Georgia Tech official semesters due to the administrative processes involved (including finances, registration, and immigration support). Students may request a non-continuous year of residency at the secondary campus with the director of the PKU program. The travel grant afforded to students in the program will not increase even if a non-continuous residency year is approved (i.e., multiple flights will be subject to the same overall grant budget). Travel on a non-continuous schedule must still coincide with GT semesters (i.e., the minimum length of time at one place or the other is a full semester).

Atlanta Students Traveling to Beijing

Students planning to travel from Atlanta to Beijing for their year abroad must prepare to obtain a Chinese “X” visa. Ensuring that the student’s home-country passport is current is of vital priority. A JW202 form must be obtained by the Peking University BME Program Coordinator to begin the process on the Chinese side. Other supporting documents from the BMED department may be necessary to supplement for use in obtaining the visa from a Chinese consulate or embassy. The department’s PKU Program Support person will assist with this part of the process.

On the US side, the GT OIE is the main resource. Though these students are not participating in an official OIE Study Abroad program, the process is similar. Students must complete and submit the OIE Study Abroad Participant Profile and Study Abroad Assumption of Risk & Release forms to the GT/Emory Graduate Program Coordinator (who will forward to the OIE)—at least several months in advance of planned travel. Students should also consult all other resources on the OIE website (www.oie.gatech.edu) for study abroad students related to tips on items such as insurance, immunizations, cultural differences, etc.

Orientation information for international students (in this case, non-Chinese) arriving at PKU is found HERE. This site also provides resources on topics such as insurance, housing, and finances while in China.
For Atlanta students who are not US Citizens or Permanent Resident card holders, they should consult with OIE about additional issues related to US immigration status.

Financially, Atlanta students will follow most of the same processes as when in residence in Atlanta. When using Coulter or other fellowship funds that are partial, a GRA supplement will be required. Thus, students in that situation should choose GRA as Current Status on the support form and the appropriate fellowship from the drop-down list of fellowship options. Students will pay GRA tuition & fees and be paid via the BMED Finance Office/GT payroll as when in Atlanta. Students with full fellowships should choose Fellowship and will be handled the same as when in Atlanta also.

REQUIRED DOCUMENTS

1) GT Paperwork
   a. OIE Study Abroad Participant Profile
   b. OIE Study Abroad Assumption of Risk & Release
   c. Finances – Whitaker fellowship is partial funding so a GRA supplement is necessary. Update Student Support Form accordingly.

2) US Passport

3) Chinese Visa (1 year)
   a. For student visas, contact the Chinese Embassy/Consulate
   b. Identify whether need Single-Entry or Multi-Entry visa (Residency Permit)
   c. Work with BME and/or PKU for any additional documentation which might be required
   d. When applying for a visa, please remember to bring along with you your valid passport, the original copy of the university’s admission notification and a Visa Application Form for Foreign Students Studying in China (also known as the JW201/JW202 form). Make sure that your letter of admission and your JW202 form is handed back to you together with your passport after obtaining your Chinese visa. You will need these documents to apply for your Residence Permit after your arrival in Beijing.
   e. International Students who will be studying in China for more than 6 months are required to obtain a Student Visa, also termed as ‘X’ Visa.
   f. Important: The Student Visa/’X’ Visa will only be valid for 30 days after your arrival. You must apply for a Residence Permit within these 30 days in order to obtain a legal status in China at Beijing Municipal Public Security Bureau (BMPSB).

4) Letter of admission from Peking University (original copy)

5) Traveler’s check or bank draft for your tuition fees payment.

6) Passport size photos (at least 6 copies)

7) Physical examination record and blood test reports (if available)
*NOTE: Consider having your important documents, such as medical prescriptions and marriage certificates (if necessary), translated into Mandarin before leaving your country.

Beijing Students Traveling to Atlanta

Students planning to travel from Beijing to Atlanta for their year abroad must obtain documentation of funding that will cover the published rates by GT of what international students require (exact US dollar amount less the tuition and fees since none will be charged by GT or Emory). Often, students receive Chinese Scholarship Council (CSC) funds that are supplemented by Coulter funds. These two documents – the CSC award letter and a PKU program letter generated by the PKU Program Director regarding the supplemental funds – or some other official proof of sufficient funds must be submitted to the Atlanta Graduate Program Coordinator who will work with the GT OIE to obtain a DS-2019 form for use in the student requesting a “J-1” visa from a US consulate or embassy.

The OIE website (http://oie.gatech.edu) provides resources on various topics pertinent to living in the US such as housing, finances, and insurance.

All F-1 and J-1 students are required to have supplemental health insurance via GT while in the US and PKU Beijing students will be required to pay this charge on their GT accounts. All international students will be enrolled in the BlueCross/Blue Shield (BCBS) student health insurance plan mandated by the University System of Georgia. The Graduate Program Coordinator will enter a code into the GT system that will waive all other tuition and fees.

Since Coulter funds for Beijing students’ time in Atlanta is limited to one year, any additional time over one year must be covered financially by the Atlanta-based co-advisor. In any case, students should continue to choose PKU-Beijing for the Current Status on their support forms.

REQUIRED DOCUMENTS

1) Passport from home country
2) U.S. Visa (F-1/J-1) *Contact the U.S. Embassy/Consulate http://oie.gatech.edu/content/applying-f-1j-1-visa

Preparing for the Visa Appointment:

a. Pay the I-901 “SEVIS Fee.” The easiest way to do this is through www.fmjfee.com, but you can do so by mail as well - see the I-901 FAQ for more information. To pay the I-901 fee, you will need your SEVIS Identification number (N000_ _ _ _ _ _ _) found at the top, right corner of your I-20 or DS-2019. Make sure to bring your payment receipt to your visa application appointment.

b. Complete the online Visa application (DS-160).
c. Pay the Visa Application Processing Fee. Students from certain countries will also have to pay a Visa Reciprocity Fee.

When applying for a Visa, the following are needed at the embassy appointment:
a. I-20/DS-2019 from Georgia Tech
b. Passport (valid at least 6 months beyond your Program Start Date)
c. I-901 Fee payment receipt
d. Visa Application Fee
e. DS-160 confirmation receipt
f. Admission letter from Georgia Tech
g. Verification of financial resources (this should be the same documentation that you sent to Georgia Tech)
h. Proof of English proficiency (TOEFL)

3) I-20/DS-2019 from Georgia Tech
4) I-94
5) Proof of Immunizations required by GT

MASTER’S STUDENTS

With the following exceptions, master’s students must complete the same processes and program milestones as doctoral students. See the checklist in Appendix E for a complete list of required paperwork.

THESIS COMMITTEE APPROVAL: The thesis committee for a master’s student must consist of at least three members, including the advisor. Two members must be on the BMED Program Faculty and one member must have no affiliation with the department. All other rules for committee makeup and approval are the same as for doctoral students (see corresponding section earlier in this chapter).

RESEARCH PROPOSAL: While Master’s students are required to prepare a proposal for the thesis committee, they are not required to make a formal proposal presentation.

ADMISSION TO CANDIDACY: In lieu of the Request for Admission to PhD Candidacy form, Master’s students must submit the Request for Approval of Master’s Thesis Topic form. This form must be submitted to the Graduate Program Coordinator immediately after the thesis committee has approved the student’s research proposal. The Coordinator will obtain departmental approval and submit the form to the Graduate Studies office on the student’s behalf.

MINOR FORM: Master’s students are not required to complete a minor and thus this form is not required.
THESIS APPROVAL FORMS: There are distinct approval forms for master’s students. The GT form is the Certificate of Thesis Approval for Master Students and the EU form is the Report of Completion of Requirements for Master’s Degree. Several of the doctoral thesis submission related forms (e.g., Library & UMI Information) are not required for master’s students.

ASSOCIATED DEGREE PROGRAMS

As the associated degree programs (BIOE, BINF, CSE, ROBO) are interdisciplinary and have their own structure, the details on curricula and program milestones can be obtained from the individual program handbooks and leadership. MD/PhD students follow the requirements and steps of the particular major/program in which they participate.
DEGREE COMPLETION & GRADUATION

BME PROGRAM

Registration & Payment in the Term of Graduation

Registration and payment options for the final term in which a graduate student is scheduled for graduation are listed below. The student and faculty advisor should discuss these options and consult with the Academic and Finance Offices when necessary. The decision on which option will be used must be communicated to both offices by the Institute’s new application for degree deadline (i.e., not by the reactivation petition deadline), which occurs in the term prior to the term of planned graduation. Unexpected changes that may alter/delay the student’s plan after this decision is made must be discussed as soon as possible with the Academic and Finance Offices.

OPTION 1 – IN SCHOOL ENTIRE TERM

A student who will work in the lab the entire term in addition to defending his/her thesis and submitting all required paperwork by the Institute’s normal deadline for graduation in that term should enroll in the standard 21 credit hours and be paid normally as a GRA or by Fellowship. This represents the same process as previous terms.

NOTE: The following options are not for students on Fellowships. Those students should only use Option 1, if planning to receive fellowship funding during the term of graduation.

OPTION 2 – IN SCHOOL PART OF TERM

A student who plans to work until the thesis defense and submission of paperwork then leave school for outside employment or other reason, has two options depending on when the defense is scheduled.

a) REDUCED COURSE LOAD WITH NO TUITION WAIVER: If the thesis defense is scheduled for a date before the Institute’s total withdrawal date—published by the Registrar’s Office and normally around two-thirds of the way into the term,
the student should enroll in 1 credit hour and be paid as a GA (not GRA) only through the defense date.

i) In this case, the normal requirement of the Institute for a minimum enrollment of three hours is waived. A student registers for one credit of thesis hours (BMED 7000 or 9000) and must pay for that hour personally. The student is hired as a Graduate Assistant (not GRA and thus no tuition waiver is available) and paid for part or all of the term with the wage to be negotiated with faculty advisor. The student and faculty advisor may also negotiate reimbursement of the tuition and fees. This one-credit hour option may be used only one time.

ii) If issues that prolong completion of the program arise and a student exhausts the one-credit hour option, the student must then register for three credit (thesis) hours and must pay for those hours personally. Normally, the student is not working nor paid and thus a tuition waiver not be granted in this case.

b) FULL COURSE LOAD WITH TUITION WAIVER: If the thesis defense is scheduled for a date after the Institute’s total withdrawal date, the student should enroll in 21 credit hours and be paid as a GRA for the whole term.

OPTION 3 – AWAY FROM SCHOOL & WORKING ON THESIS REMOTELY

A student who will no longer working in the lab by the start of the term, but will be working on his/her thesis remotely and coming back to campus only for the thesis defense should enroll in 1 credit hour and should not be paid for any duration of the term.

OPTION 4 – COMPLETELY FINISHED, BUT MISSED DEADLINE FOR GRADUATION IN PREVIOUS TERM

A student who will defend the thesis and submit all paperwork by the end of the first week of the term should submit an Enrollment Waiver and thus not register for any credit hours. If the student will be leaving for outside employment or other reasons immediately, then no payment should be made for any duration of the term. If the student will be working for some or all of the term, the person may be hired as a non-student (e.g., Tech Temp). A student is eligible for this option only if having been registered in the immediately preceding term.

IMPORTANT NOTE: Emory does not have an enrollment waiver option and requires that all students be registered in the final term of graduation. Thus, students using the enrollment waiver at GT must still register for BMED 9999R at Emory.

Degree Applications

Degree applications must be submitted well in advance of the thesis defense and planned graduation. See Chapter 9 for details.
Thesis Format Check

Soon after the writing process has begun, a student should submit a draft of the thesis to the GT Graduate Studies Office for a format check. There is no need to wait until the document is complete or after the defense and an early format check will help expedite the final draft process later on. The very latest that a format check can be scheduled is one week prior to the final thesis submission deadline. The format check may be done in person or via e-mail submission. Theses checked for formatting by GT are considered acceptable for submission at EU.

Thesis Submission

The Graduate offices of GT and EU both utilize the same third-party Electronic Theses & Dissertations (ETD) submission system. As such, BME students submit their theses electronically via GT and submit a printed copy to EU. The GT Thesis Manual provides specific instructions on submitting electronically. The hard copy required by EU should be unbound and may be printed double-sided on regular paper (including the approval forms with signatures and title pages used as cover sheets) as dictated by the EU Graduate School contact listed in Appendix A.

POLICY ON OPEN PUBLICATION

According to GT policy, masters and doctoral theses should be openly published. Upon the request of the student and with the consent of the faculty advisor, the electronic submission of the thesis can routinely be withheld from circulation for one year. Research arrangements that would preclude publication for an extended time or permanently for reasons of national security or a sponsor’s proprietary interest, however, are not appropriate for dissertations or theses. It is anticipated that all doctoral work and a significant amount of master's research will be published in the open, refereed literature.

Required Forms

A complete checklist of forms and documents required throughout the BME program is found in Appendix E. The checklist includes the appropriate recipients for all forms and documents. Most are housed on the GT side with the Graduate Program Coordinator forwarding certain documents (e.g., Admission to Candidacy, Minor, and Certificate of Thesis forms) to EU on the student’s behalf. All institutional level forms must be submitted to the appropriate offices before a student will be cleared for graduation at each institution.

Each student is responsible for ensuring that all requirements have been met and all forms and documents submitted. The Graduate Program Coordinator is available to assist students with any questions.
Commencement

Students in the BME program may attend either the GT or EU commencement ceremony and must notify both institutions about where attendance is planned. Students must purchase their regalia from the GT or EU bookstore, depending on which ceremony will be attended. Doctoral students attending the GT commencement must purchase caps and gowns while the Institute will provide hoods. Students attending the EU commencement must purchase all applicable regalia. The faculty advisors will attend and hood their students (or secure their own alternates in case attendance is not possible).

Diplomas

Diplomas for students in the BME program are produced by EU and thus it is critical that the most current mailing address is provided before commencement. The diplomas include the seals from both GT and EU.

Diplomas for students in the PKU program include seals from GT, EU, and PKU.

Request for Alternatives or Extensions of Program Timeline

Often due to unexpected research results, students need to request extensions of the timeline of their programs. For degree application purposes, “reactivation” petitions on the GT side are required. For other requests of alternate plans (such as part-time status) or any extenuating circumstances that may be outside typical requests, students should consult with the Graduate Program Coordinator or Associate Chair for Graduate Studies and/or submit petitions to the BME Graduate Committee as necessary. The Associate Chair and/or Graduate Committee will consider all requests on a case-by-case basis. In addition to departmental requirements, institutional guidelines and requirements must be met.

INTERNATIONAL STUDENT IMMIGRATION EXTENSIONS

International students who need to request extensions for immigration purposes such as I-20 and OPT paperwork must consult with the Office of International Education (OIE). The forms that require departmental approval must be submitted to the Graduate Program Coordinator who will ensure that advisors approve before signing and returning the forms to OIE.
ASSOCIATED DEGREE PROGRAMS

As most of the associated degree programs (BIOE, BINF, CSE, ROBO) are not involved with EU, students need only follow the GT guidelines for submitting final degree paperwork. In general, the steps should be the same for all students. However, students in these programs should consult with the leadership in their particular programs to ensure that all requirements are met. MD/PhD students follow the requirements and steps of the particular major/program in which they participate.
APPENDIX A
Department Directory

MAIN OFFICES

Georgia Tech campus

U.A. Whitaker Building (UAW)
313 Ferst Drive, Room 2127
Atlanta, GA 30332-0535
(404)385-0124

Emory campus

Health Sciences Research Building (HSRB)
1760 Haygood Drive, Suite W 200
Atlanta, GA 30322-4600
(404)727-9874

Peking campus

PKU/GT/Emory BME PhD Program Office
Room 316-2, Founder Building,
No.298, Cheng Fu Road, Hai Dian District,
Beijing, China 100871

Other buildings referenced below include the P.H. Petit Biotechnology Building (IBB) on the Georgia Tech campus and the School of Medicine Education & Administration Building (SOM) on the Emory campus.

FACULTY

The faculty information most relevant to the graduate program is listed below. For a full listing of the department’s faculty, please see http://www.bme.gatech.edu/facultystaff/faculty.php. A complete list of faculty committees is available via the department chair’s office. Specific contact information when not listed below can be found on the faculty website as well.

Administration

Ravi Bellamkonda, Chair
ravi@bme.gatech.edu UAW 2116 (404)385-5038

Garrett Stanley, Associate Chair for Graduate Studies
garrett.stanley@bme.gatech.edu UAW 3108 (404)385-5044

Shannon Barker, Director of Graduate Training
shannon.barker@me.gatech.edu UAW 3106 (404)385-5045

Qiushi Ren, Chair of BME at Peking University
renqsh@coe.pku.edu.cn

Cheng Zhu, Professor & PKU Program Director
cheng.zhu@me.gatech.edu IBB 3312 (404)894-3269
Committees

GRADUATE ADMISSION

Mike Davis, Chair  
Sathya Gourisankar  
Shella Keilholz  
Charlie Kemp  

Wilbur Lam  
Bob Lee  
Todd McDevitt  
John Oshinski  

Manu Platt  
Cheng Zhu  
OPEN (student)

GRADUATE COMMITTEE

Garrett Stanley, Chair  
Shannon Barker  
Rob Butera  
Sathya Gourisankar  

Todd McDevitt  
Krish Roy  
Wei Sun  
Lena Ting  

May Wang  
Cheng Zhu  
Joan Fernandez (student)  
Jessica Joyce (student)

Associated Degree Programs

BIOENGINEERING

Andres Garcia, Program Chair  
andres.garcia@me.gatech.edu  
IBB 2310  
(404)894-9384

BIOINFORMATICS

Mark Borodovsky, Program Chair  
borodovsky@gatech.edu  
UAW 4102  
(404)894-8432

COMPUTATIONAL SCIENCE & ENGINEERING

ROBOTICS

Charlie Kemp, BMED departmental contact  
charlie.kemp@bme.gatech.edu  
828 W. Peachtree St, Room 220F  
(404)385-8192
STAFF

The staff information most relevant to the graduate program is listed below. For a full listing of the department’s staff, please see http://www.bme.gatech.edu/facultystaff/staff.shtml.

Academic Office

Sally Gerrish, Corporate Relations Manager
sally.gerrish@bme.gatech.edu UAW 1108 (404)894-7063
Shannon Sullivan, Graduate Program Coordinator/Academic Advisor
shannon.sullivan@bme.gatech.edu UAW 1107 (404)385-2557

Finance Office

Tracie Dinkins, Accountant
tracie.dinkins@bme.gatech.edu UAW 1113 (404)385-0372
Shuana Durham, Financial Manager
shuana.durham@bme.gatech.edu UAW 1112 (404)385-1792
Sandra Wilson, Accountant-Student Payroll
sandra.wilson@bme.gatech.edu UAW 1115 (404)385-5015

Administrative Staff

Valencia Cantrell, BMED-HR Coordinator
valencia.cantrell@bme.gatech.edu UAW 2114 (404)385-1352
Tamika Hairston, EU Graduate School Registrar
tamika.hairston@emory.edu (404)727-6033
Tatianna Mathews, GT Graduate Studies & Research Office					tatianna.mathews@grad.gatech.edu (404)894-3092
Dewayne Roberson, BMED-GT Building Coordinator
dewayne.roberson@bme.gatech.edu UAW 2127 (404)385-0124
Lisa Simmons, BMED-EU Department Administrator
lisa.simmons@emory.edu WMB 2001 (404)727-9875
Queen Watson, EU Graduate School
queen.watson@emory.edu (404)727-6170
Leita Young, BMED-EU Administrative Assistant
leita.young@emory.edu WMB 2001 (404)712-9716
Technology Staff

Chris Aldridge, Computer Services Specialist
help@bme.gatech.edu UAW 4242 (404)385-1572

Steven Marzec, Operating Systems Analyst/Lead Developer
steven.marzec@bme.gatech.edu UAW 0208 (404)385-1572

Jesus Mata-Acosta, Computer Services Specialist
jesus.mata@bme.gatech.edu UAW 0208 (404)385-1572

Vickie Okrzesik, Web Developer/Webmaster
vickie.okrzesik@bme.gatech.edu UAW 0239 (404)385-5020

Peking University Program Staff

Jialei Luo, Program Coordinator
jlluo@coe.pku.edu.cn +86-15210551618

Associated Programs Staff

Mary Horton, Administrative Director-MD/PhD
mhorton@emory.edu SOM P374 (404)727-6977

Laura Paige, Academic Advisor -BIOE
laura.paige@bioengineering.gatech.edu IBB 1103 (404)385-6655

Kevin Roman, Academic Advisor-BINF
kevin.roman@biology.gatech.edu Cherry Emerson 203 (404)385-4240
APPENDIX B
Internet Resources

GENERAL INFORMATION

Current information on academic programs, faculty, staff, research, news and events are found on the departmental website. The Academic Office section includes an electronic copy of this handbook and links to pertinent graduate program resources.

Georgia Tech – http://www.gatech.edu/
Emory - http://www.emory.edu/
Peking University - http://english.pku.edu.cn/
BMED website - http://www.bme.gatech.edu/
Academic Office website - http://www.acad.bme.gatech.edu/
Research areas/faculty websites - http://www.bme.gatech.edu/research/index.shtml

ASSOCIATED DEGREE PROGRAMS

Bioengineering –http://www.bioengineering.gatech.edu/prospective-students
Bioinformatics – http://www.bioinformatics.biology.gatech.edu/
Computational Science & Engineering – http://www.cseprograms.gatech.edu/csephd
MD/PhD - http://www.med.emory.edu/education/MDPHD/
Robotics - http://www.ic.gatech.edu/future/phdrobotics

HONOR CODES

Georgia Tech - http://honor.gatech.edu/
Emory - http://www.graduateschool.emory.edu/resources/handbook.php
FINANCES

BMED Student Support Form –  
https://www.bme.gatech.edu/admissions/students/login.php
Bursar – http://www.bursar.gatech.edu/
Fellowships - http://fellowships.gatech.edu/
Financial Aid – http://www.finaid.gatech.edu/
GRAs - http://www.gradadmiss.gatech.edu/institute_policies/

REGISTRATION

The Registrar’s Office websites from both institutions include the official course 
catalogs, timelines, deadlines, policies and procedures, forms, and other important 
information.

Georgia Tech - http://www.registrar.gatech.edu/
   https://oscar.gatech.edu/
   http://www.catalog.gatech.edu/
Emory - http://www.registrar.emory.edu/
   http://www.graduateschool.emory.edu/resources/handbook.php
Peking University - http://www.coe.pku.edu.cn/subpage.asp?id=18

DEGREE COMPLETION & GRADUATION

A number of forms are required by both institutions in order to show proof of 
program completion and apply for graduation. For more information, see Chapter 9 
(details), Appendix C (sample forms), and Appendix D (checklist).

Georgia Tech Graduate Studies & Research - http://www.grad.gatech.edu/
Emory Graduate School - http://www.graduateschool.emory.edu/
Georgia Tech Commencement - http://www.gatech.edu/commencement/
Emory Commencement - http://www.emory.edu/commencement/
BUILDING & CAMPUS RESOURCES

BuzzCard – http://www.buzzcard.gatech.edu/
BMED Internal Resources - http://www.bme.gatech.edu/facultystaff/int_resources.shtml
Campus Recreation – http://www.crc.gatech.edu/
  http://www.acad.bme.gatech.edu/downloads/AccesstoEUWoodPEC.pdf
Counseling Center - http://www.counseling.gatech.edu/
  http://studenthealth.emory.edu/cs/
EmoryCard - http://www.emory.edu/studentfinancials/EmoryCard.htm
Health Services - http://www.health.gatech.edu/
  http://studenthealth.emory.edu/
Information Technology – http://www.oit.gatech.edu/home/index.cfm
  http://it.emory.edu/
International Students – http://www.oie.gatech.edu/
  http://www.emory.edu/ISSP/
  http://english.pku.edu.cn/Admission/InternationalStudents/
Parking - http://www.parking.gatech.edu/
  http://www.acad.bme.gatech.edu/downloads/ParkingAgreementGTandEU.pdf
Room Reservations – http://acad.bme.gatech.edu/general/room.php
Shuttle Service between GT & EU –
  http://pts.gatech.edu/ride/Pages/EmoryShuttle.aspx
  http://transportation.emory.edu/shuttles/
APPENDIX C

Sample Forms

Sample forms for the major program milestones and degree/graduation paperwork required are found in this section. Electronic versions of the forms are found online via the websites listed before each sample.

Program Faculty Membership Sample Request Letter

(Please use home Academic Unit letterhead)

Date

Professor
Associate Chair for Graduate Studies
WHC Department of Biomedical Engineering
at Georgia Tech & Emory University

Dear Professor:

I am applying for admission/renewal of membership to the Biomedical Engineering (BME) Program Faculty. My research activities related to biomedical engineering focus on specific research area. As a member of the BME Program Faculty, I will routinely participate in activities important to the Program. These activities may include (i) service in qualifying exam committees, (ii) participation in M.S. and Ph.D. thesis committees, (iii) development and teaching of BME courses, (iv) service in standing and ad-hoc BME committees, and (v) participation in Program assessment activities. [For renewal applications, list service activities during last term].

For administrative support purposes, the following person(s) should be included on future BME-related correspondence to assist with academic, financial, and other administrative concerns: [Please list name, e-mail, and phone for each person.]

The current BME Program Faculty member who will serve as my sponsor is name.

Sincerely,

Applicant
Home Department

Endorsed by:

_______________________________  ______________________
Chairperson of Applicant’s Home Department            Date
# Student Support Form

(https://www.bme.gatech.edu/admissions/students/login.php)

| AdminPlus® Control Panel: Financials Graduate Financial Report | Page 1 of 1 |


The tools found here can be used to manage the BME Information Center.
If you require assistance, please contact BME Administrator Support.

**Graduate Student Financial Support Management**

Currently Editing:

**Graduate Student Financial Support Management:**

Please fill out the form. (* Required)

- **Student Name:** George P. Burdell (first name last name)
- **GT ID #:** 000123456
- **Status:** Fellowship
  - If Fellowship, is this the last semester?
  - No
  - If Fellowship, what is the name?
  - 1. GT Institute Fellowship
  - 2. President's Fellowship
  - 3. Whitaker
- **Upload Forms:** Browse
- **Funding Period:** Summer 2009
- **Advisor:** Gilda Barabino
- **Estimated Graduation Date:** 05/02/2005 (mm/dd/yyyy)
- **Support Term Date:** 06/05/2009 (mm/dd/yyyy) (today's date)
- **Home Department:** BME
- **Citizenship:** (if not U.S.)
- **Comments:**

Friday, June 5, 2009

Questions? Contact: webmaster@bme.gatech.edu

JavaScript DHTML Drop Down Menu By Milonic

https://www.bme.gatech.edu/admissions/students/fin_support.php 6/5/2009
BMED 7001 Seminar Participation Form

(http://www.acad.bme.gatech.edu/downloads/BMED 7001 Seminar Participation Form.doc)

BMED 7001 Biomedical Engineering Seminar Participation Form

Student Name: ________________________ Faculty Advisor: ________________________

Research Track:  □ BIOMATERIALS  □ CARDIOVASCULAR  □ CELLULAR  □ INTEGRATIVE BIOSYSTEMS
□ MEDICAL IMAGING  □ NEUROENGINEERING

Term & Year of Course: ________________________

Requirements: All first and second year graduate students with BMED as the home school must register for BMED 7001 Seminar in both the fall and spring terms (a total of four terms with Satisfactory grades). Attendance in-person at seven research seminars during each term is required. Acceptable seminars are offered by Georgia Tech, Emory, and Georgia State and include speakers, workshops, and doctoral defenses. Doctoral proposals, other talks not led by a speaker with a PhD, and seminars that are not research-oriented do not suffice.

Documentation: This completed form must be signed by the student and faculty advisor, then submitted via the T-Square course site by the last day of the term as per the GT Registrar’s calendar. A student who is not officially registered for the course may not submit a participation form and will not receive future credit for any attendance in that term. For registered students, failure to submit the completed form by the deadline will result in a grade of U (unsatisfactory).

<table>
<thead>
<tr>
<th>SEMINAR TITLE &amp; SPEAKER</th>
<th>HOST/SPONSOR</th>
<th>DATE</th>
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<td>2.</td>
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<td>3.</td>
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<tr>
<td>4.</td>
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<tr>
<td>5.</td>
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<td>6.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Honor Code: In conjunction with the Georgia Institute of Technology and Emory University honor codes, I understand that my signature attests that I completed the requirements of this course as described above. I also understand that a failure to adhere to the honor codes will be considered a violation that will be reported to the Office of the Dean of Students.

Student Signature: ________________________ Date: ________________________

Faculty Advisor Signature: ________________________ Date: ________________________

Updated June 2014
Student-Faculty Interview & Preference Form

(http://www.acad.bme.gatech.edu/downloads/Student FACULTY INTERVIEW form.doc)

Student Name: ____________________________ (Please type or print)

Research Track: □ BIOMATERIALS □ CARDIOVASCULAR □ CELLULAR □ INTEGRATIVE BIOSYSTEMS
□ MEDICAL IMAGING □ NEUROENGINEERING

Date: __________ Program: □ BME □ PKU

In order to assist with the student/faculty advisor matching process, incoming students are required to interview a minimum of 4 faculty members, and then indicate their final top 3 choices below. Faculty members will submit a similar list of preferences of students.

Faculty Interviews

<table>
<thead>
<tr>
<th>DATE</th>
<th>FACULTY NAME</th>
<th>FACULTY SIGNATURE</th>
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</thead>
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</tbody>
</table>

TOP CHOICES FOR ADVISOR, ranked by preference.

<table>
<thead>
<tr>
<th>RANK</th>
<th>FACULTY NAME</th>
</tr>
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<tbody>
<tr>
<td>#1</td>
<td></td>
</tr>
<tr>
<td>#2</td>
<td></td>
</tr>
<tr>
<td>#3</td>
<td></td>
</tr>
</tbody>
</table>

DEADLINE: September 10 of Year 1 in the program

Please return this form to the BMED Graduate Program Coordinator by the aforementioned deadline via e-mail as a scanned copy with signatures.

Updated June 2014
# BME & PKU Proposed Program of Study

*(Only typed forms are acceptable)*

**Name:** ____________  
**GTID:** ____________  
**BME**  
**PKU**  
**Date:** ____________  
**Original**  
**Revised**

**Research Track:**  
☐ BIOMATERIALS  
☐ CARDIOVASCULAR  
☐ CELLULAR  
☐ INTEGRATIVE BIOSYSTEMS  
☐ MEDICAL IMAGING  
☐ NEUROENGINEERING

This proposed Program of Study must be submitted (fully completed, signed, scanned as a .pdf and sent via e-mail) to the BME Graduate Program Coordinator by December 1 of the first semester of the program. The Program of Study is subject to approval by the BME Graduate Committee, who will evaluate the proposed coursework with regard to depth, breadth, relevance to research objectives, and academic rigor of the courses. A revised Program of Study should highlight the specific changes from the original plan.

**Core Curriculum:**  
(List course numbers with planned semesters/years)

<table>
<thead>
<tr>
<th>Seminar Course (4 semesters)</th>
<th>__________________________</th>
<th>__________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrative Core</td>
<td>__________________________</td>
<td>__________________________</td>
</tr>
</tbody>
</table>

(choose 2 courses & list names/numbers along with semester & year)

- Ethics Series:  
  - PSI 600  
  - PSI 610  

- Teaching Series:  
  - TATT 600  
  - RMED 7002  

(TATT is workshop & 2 terms as TA)  
BMED 7003

Adv. Seminar (List course number/name along with semester & year)  
__________________________

**Thesis Hours (required each term)**

- PKU only: Global Perspectives (course/semester)  
  - (Atlanta)  
  - (Beijing)  

- Chinese Language Requirement: CHIN 3001/6002 (circle)  
  - (semester/s) or Exempt by Modern Languages

- PHIL 6010

**Fundamentals, Electives, and Minor:**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course Name &amp; Number</th>
<th>Credit Hours</th>
<th>Planned Semester &amp; Year</th>
<th>Biological Science Category</th>
<th>Engineering Category</th>
<th>Other Bio/Science Category</th>
<th>Advanced Seminar Prerequisite</th>
<th>Elective</th>
<th>Applies toward Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>(EE: M.S./PhD student medical school required)</td>
<td>(EE)</td>
<td>(EE)</td>
<td>(EE)</td>
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<td>(EE)</td>
<td>(EE)</td>
<td>(EE)</td>
<td>(EE)</td>
<td>(EE)</td>
</tr>
</tbody>
</table>

| Total Hours (must -18 or more) |
|______________________________|

Program requirements dictate 18 hours of engineering and bioscience fundamentals. Please consult the BME Graduate Studies web pages for guidance on appropriate courses for meeting this requirement within your area of study. The minor requirement is typically met with nine credit hours of courses that exist outside the BME major and will strengthen or enhance current studies and research. To offer students flexibility, courses in the Engineering/Bioscience Fundamentals category can typically be used to fulfill the minor requirement. The student’s advisor or committee must approve the selection of a minor. For more information regarding minor requirements, please visit [www.catalog.gatech.edu/students.grad.doorctoral/minor.php](http://www.catalog.gatech.edu/students.grad.doorctoral/minor.php).

**Name of Minor:** __________________________

**Updated August 2014**
Program of Study Form (Page 2)

Justification of Course Selection:
A thorough exploration, including notation of requirements of research area tracks, should be included below.

FACULTY ADVISOR RECOMMENDATION

Advisor Name (print) ___________________________ Advisor signature (required) ___________________________

GRADUATE COMMITTEE REVIEW

☐ Approved  ☐ Not Approved  Date: ___________________________

Associate Chair for Graduate Studies or Graduate Committee Chair signature ___________________________

Updated August 2014
Qualifying Exam – Academic Profile & Honor Code Pledge (Page 1)


BME PhD QUALIFYING EXAM
ACADEMIC PROFILE & HONOR CODE PLEDGE

(Only typed forms are acceptable)

Student Name: ________________________________

Faculty Advisor: _____________________________

Program: □ BME □ PKU

Research Track: □ BIOMATERIALS □ CARDIOVASCULAR □ CELLULAR
□ INTEGRATIVE BIOSYSTEMS □ MEDICAL IMAGING □ NEUROENGINEERING

ACADEMIC BACKGROUND:

- Undergraduate degree, institution, year, and courses

- Graduate courses

- What do you consider your area of fundamental knowledge in biosciences?

- What do you consider your area of fundamental knowledge in engineering?

RESEARCH WORK TO-DATE:

Updated June 2014
BME PhD QUALIFYING EXAM

Honor Code Pledge

In conjunction with the Georgia Institute of Technology and Emory University honor codes, I agree that I will not communicate any information regarding my PhD Qualifying Exam, including exam questions, until all student exams have been completed.

I understand that the intent of this code is to prevent any student from gaining an unfair advantage over other students. I also understand that a failure to adhere to this code will be considered a violation that will be reported to the Office of the Dean of Students.

I acknowledge that this form must be submitted to the Graduate Program Coordinator in the BME Academic Office prior to my exam.

_________________________  ____________________
STUDENT SIGNATURE         DATE

STUDENT NAME (print or typed)

Updated June 2014
# BME Graduate Milestones Evaluation Form

**BME GRADUATE MILESTONES EVALUATION FORM**

**STUDENT:**
**PROGRAM:** BME, PRI
**MATRICULATION TERM/YEAR:**

**RESEARCH TRACK:**
- [ ] BIOMATERIALS
- [ ] CARDIOVASCULAR
- [ ] CELLULAR
- [ ] INTEGRATIVE BIOSYSTEMS
- [ ] MEDICAL IMAGING
- [ ] NEUROENGINEERING

**MILESTONE:**
- [ ] QUALIFYING EXAM
- [ ] THESIS PROPOSAL
- [ ] THESIS DEFENSE
- [ ] OTHER

**FACULTY MEMBER:**
**DATE:**

### PERFORMANCE CRITERIA

#### Applies biological knowledge at the graduate level towards solving bioengineering problems

- [ ] Consistently provides detailed answers on bio-mechanisms without prompting
- [ ] Able to explain the biological aspects of the problem with insight
- [ ] Able to explain the biological system at the functional/structural/factual level

#### Applies engineering skills and knowledge towards solving bioengineering problems

- [ ] Consistently provides details of approach to problem w/o prompting
- [ ] Able to explain engineering principles as relevant to the biological problem
- [ ] Demonstrates the ability to gain insight into a biological problem using engineering principles

#### Integrates biological and engineering concepts in solving problems

- [ ] Consistently demonstrates awareness of how biology drives answer and checks that answer accurately reflects biological problem
- [ ] Able to develop and explain an experimental design
- [ ] Able to use new material to solve a problem on his/her feet

### Overall Scores

<table>
<thead>
<tr>
<th>Performance Criteria</th>
<th>Exceptional</th>
<th>Very Good</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Remedial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applies biological knowledge...</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
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</tr>
<tr>
<td>Applies engineering skills...</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Integrates biological and engineering concepts...</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

### Remedial Notes

- [ ] Fails to articulate simple concepts in cell/tissue or physiology
- [ ] Unable to explain how bio events inform design
- [ ] Unable to explain a biological system at its functional level
- [ ] Knows biological facts but cannot pull down to an engineering/quantitative level

---

Page 1  Updated January 2014
BME Graduate Milestones Evaluation Form (Page 2)

<table>
<thead>
<tr>
<th>PERFORMANCE CRITERIA</th>
<th>Exceptional</th>
<th>Proficient</th>
<th>Remedial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectively communicates ideas in an organized manner.</td>
<td>☐ Develops a chain of logic that is transparent and easy to follow</td>
<td>☐ Offers a chain of logic but it is not particularly transparent or easy to follow</td>
<td>☐ Rambles and sidesteps the question</td>
</tr>
<tr>
<td></td>
<td>☐ Engages committee in the clarification process</td>
<td>☐ Offers mostly targeted, relevant information</td>
<td>☐ Unable to make list of clear goals and questions</td>
</tr>
<tr>
<td></td>
<td>☐ Able to restate question in own words.</td>
<td>☐ Is aware of technical terminology but has difficulty connecting it to explanations</td>
<td>☐ Responds to different question than asked</td>
</tr>
<tr>
<td></td>
<td>☐ Easily uses technical terminology and concepts to make points</td>
<td>☐ Able to explain very technical information in lay terminology with ease</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall Score:</th>
<th>☐ 5-Exceptional</th>
<th>☐ 4-Very Good</th>
<th>☐ 3-Proficient</th>
<th>☐ 2-Needs Improvement</th>
<th>☐ 1-Remedial</th>
</tr>
</thead>
</table>

| Utilizes a logical problem solving approach. | ☐ Able to clearly articulate rationale in defense of a claim without prompting | ☐ Gives a partial chain of logic | ☐ Unfocused responses |
| | ☐ Needs prompting to translate technical terminology into lay, easily understandable terms | ☐ Needs prompting to translate technical terminology into lay, easily understandable terms | ☐ Makes vague statements with no clear tie to question |
| | ☐ Demonstrates an understanding of rationale but needs prompting to apply it to the problem | ☐ Unable to defend statements | ☐ |

<table>
<thead>
<tr>
<th>Overall Score:</th>
<th>☐ 5-Exceptional</th>
<th>☐ 4-Very Good</th>
<th>☐ 3-Proficient</th>
<th>☐ 2-Needs Improvement</th>
<th>☐ 1-Remedial</th>
</tr>
</thead>
</table>

COMMENTS

OVERALL SCORE FOR MILESTONE | ☐ 5-Exceptional | ☐ 4-Very Good | ☐ 3-Proficient | ☐ 2-Needs improvement | ☐ 1-Remedial |

STUDENT: _________________________  MILESTONE: ☐ QUALIFYING EXAM ☐ THESIS PROPOSAL ☐ THESIS DEFENSE ☐ OTHER

FACULTY MEMBER: __________________ DATE: ________________

Page 2  Updated January 2014
Qualifying Exam Decision Form

**THE WALLACE H. COULTER DEPARTMENT OF BIOMEDICAL ENGINEERING**

at Georgia Tech and Emory University

---

**BME Qualifying Exam Decision Form**

Student Name: ____________________________

Program: □ BME □ PKU

Exam Date: ____________________________

---

**Exam Decision**

<table>
<thead>
<tr>
<th>Pass (may make recommendations below)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass with conditions</td>
</tr>
<tr>
<td>Retake (state recommendations below)</td>
</tr>
</tbody>
</table>

---

Recommendations or Conditions:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

---

Committee Members (please print)    | Signatures
------------------------------------|-----------------
____________________________________|________________

---

**NOTE TO CHAIR:**

Please submit this completed form to the Graduate Program Coordinator in Whitaker Room 1107 immediately after the exam.

---

Updated November 2011
REQUEST FOR APPROVAL OF THESIS COMMITTEE
(This form must be typed)

Student Name: ___________________________ Date: ___________________________

Research Track: □ BIOMATERIALS □ CARDIOVASCULAR □ CELLULAR
□ INTEGRATIVE BIOSYSTEMS □ MEDICAL IMAGING □ NEUROENGINEERING

Program: □ BME □ PKU □ Original Request □ Revised Request*

A. List of Committee Members

The following faculty members are proposed to serve as members of the Thesis Committee for the above named student. Five members are required for PhD students and three for MS students. For PhD students, three of the committee members are in the BMED Program Faculty and at least one of the committee members has no affiliation with the department—preferably from a biosciences area of GT, EU, or a collaborating institution. For PKU students, the co-advisor at PKU should be listed. For MS students, two are in the Program Faculty and one has no affiliation with the department. The membership reflects a balance between engineering and the life sciences. Refer to the Graduate Program Handbook for full details on committee membership requirements.

1. Advisor: ____________________________ Institution/Dept: ________________
   ____________________________ (signature)

2. ____________________________ Institution/Dept: ________________
   ____________________________ (signature)

3. ____________________________ Institution/Dept: ________________
   ____________________________ (signature)

4. ____________________________ Institution/Dept: ________________
   ____________________________ (signature)

5. ____________________________ Institution/Dept: ________________
   ____________________________ (signature)

*Additional lines should be added for any previously approved members being removed from the committee as part of a Revised Request. Signatures of those coming off the committee are also required.

Updated August 2014
B. Student Description of Project and Justification for Choice of Committee Members

Following is a short description of the proposed research project and rationale for the choice of the proposed committee members listed above:

C. Curricula Vitae (CVs) for non-BME Committee Members

Attached to this document are short-version CVs (2-3 pages maximum with NIH Biosketch format preferred) for the proposed committee members who are outside the BME department.

Student signature __________________________ Date __________________________

Faculty Advisor signature __________________________ Date __________________________

This completed form and attachments must be submitted to the BME Academic Office / Graduate Program Coordinator. The BME Graduate Committee will review the request. The form will be kept in the student’s file and a copy given to the student. If approved, the student may proceed with the next steps in the thesis/dissertation process with the above named committee.

APPROVAL:

The BME Graduate Committee has approved this request. ☐ YES ☐ NO

Graduate Committee Chair or Associate Chair for Graduate Studies __________________________ Date __________________________

Updated August 2014
**PKU BME Project Initiation Form (Page 1)**

(http://acad.bme.gatech.edu/downloads/PKU%20Project%20Initiation%20Form.doc)

<table>
<thead>
<tr>
<th>GEORGIA INSTITUTE OF TECHNOLOGY</th>
<th>INVESTIGATOR DATA/PROJECT TITLE</th>
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<tbody>
<tr>
<td>Georgia Tech – GIT/Emory PKU BME Project Initiation Form</td>
<td>BME Project Tracking Number</td>
</tr>
<tr>
<td>Project Director/Principal Investigator (Dr./Msc./Mrs./Miss./Ms.)</td>
<td>Name</td>
</tr>
<tr>
<td>E-MAIL</td>
<td>Fax</td>
</tr>
<tr>
<td>LABORATORY, COLLEGE OR SCHOOL</td>
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</tr>
<tr>
<td>PROJECT TITLE</td>
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</tr>
<tr>
<td>Co-PI/PDPI</td>
<td>Name</td>
</tr>
<tr>
<td>E-MAIL</td>
<td>Fax</td>
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**SPONSOR INFORMATION**

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<th>OSP PROPOSAL/CONTRACT NUMBER (IF APPLICABLE)</th>
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<td>Funding Sources:</td>
<td>OSP Project Number ______________________</td>
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<td></td>
<td>OR GT PeopleSoft Number ______________________</td>
</tr>
<tr>
<td>Total $ Proposed—PKU BME Project</td>
<td>Estimated Start Date</td>
</tr>
<tr>
<td></td>
<td>Performance Period Months: ___ or Days: ___</td>
</tr>
</tbody>
</table>

**PROJECT INFORMATION**

| ІЕРОГАІІІАЛЬЕ СОАЕЕОАЕ СОІОЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕЕК

**Special Review Checklist**

- The PKU BME project involves the following:
  - [ ] Yes No
  - Human Subject Research
  - IRB protocol Number:______________ Expiration Date:______________
  - Vertebrate Animals
  - IACUC protocol Number:______________ Expiration Date:______________
  - Recombinant DNA
  - IRC protocol Number:______________ Expiration Date:______________

Applicants may request a deferral to submit a funding proposal without an approved protocol as required by GT policy. Requests must be made in writing to your Contracting Officer who will obtain institutional approval for such action.

- [ ] More info: www.dhs.gov/dhsfax
- Select Agents
  - [ ] Yes No
  - www.cdc.gov/ncidod/dhsofsa.html
  - [ ] Biological Agents: Check all that apply:
  - Infectious or Pathogenic agent(s)  
  - Human tissues or bodily fluid(s)  
  - Other Bioagents
  - [ ] Physical Agents: Check all that apply:
  - Chemicals  
  - Sharp  
  - Laser  
  - Radiation  
  - Thermal agent(s)

- [ ] Materials Transfer Agreement (MTA)

- [ ] Professional Education Program (if yes, please route form to DLPE)

- [ ] External Award(s) are proposed

- [ ] Non-Disclosure Agreement (NDA) is required or in process

[GT/Emory BME Project Initiation]
# PKU BME Project Initiation Form (Page 2)

## ROUTING AND APPROVALS FOR COMPLETED PROPOSAL

<table>
<thead>
<tr>
<th>REQUIRED</th>
<th>RESPONSIBILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Principal Investigator/Project Director and Co-Principal Investigator (if applicable)</td>
<td>Declaration of Intellectual Property Identification of Geographical Location</td>
</tr>
</tbody>
</table>

I certify that the information on this form is accurate and complete as of this date. I agree to accept responsibility for scientific and technical conduct of this project and for provisions of required technical reports if a grant or contract is awarded as a result of this application. If an award is made as a result of this proposal, I will administer it in accordance with the policies of the sponsor and of Georgia Tech as applicable.

I certify that I have read and understand the Institute’s conflict of interest policy. To the best of my knowledge, all required financial disclosures were made, and I will comply with any conditions or restrictions imposed by the Institute to manage, reduce, or eliminate conflicts of interest.

<table>
<thead>
<tr>
<th>PD/PI Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-Investigator 1 Signature</td>
<td>Date</td>
</tr>
<tr>
<td>Co-Investigator 2 Signature</td>
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<tr>
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<tr>
<td>2. Lab/School</td>
<td>Non-GFT/Emory BME Researcher Agreement</td>
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Department/Lead unit Signature Date

Other department/unit Co-1 Signature Date

Other department/unit Co-2 Signature Date

<table>
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<tr>
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<th>RESPONSIBILITIES</th>
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</thead>
<tbody>
<tr>
<td>3. PKU BME Director</td>
<td>Approval of Personnel Assignments, Technical and Budgetary Content, Equipment and Space, and Special Considerations listed below.</td>
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</tbody>
</table>

Dean/Director Signature Date

<table>
<thead>
<tr>
<th>SITUATIONAL</th>
<th>RESPONSIBILITIES</th>
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<tbody>
<tr>
<td>4. Associate Vice Provost for Research</td>
<td>Approval of special considerations.</td>
</tr>
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</table>

Signature Date

<table>
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<tr>
<th>REQUIRED</th>
<th>RESPONSIBILITIES</th>
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<tbody>
<tr>
<td>5. Office of Sponsored Programs (OSP)</td>
<td>General review for compliance with sponsor’s requirements. GfT/GtT/GTARC policies and obligations, budget/contractual requirements. Provide transmittal letter and contract terms; arrange for reproduction, mailing, and internal distribution, maintain official file.</td>
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**EXPORT REVIEW**

<table>
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<tr>
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<th>N</th>
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<tr>
<td>Foreign Sponsor</td>
<td>Publication Restriction</td>
</tr>
<tr>
<td>Foreign National Restriction</td>
<td>Non Disclosure Agreement</td>
</tr>
<tr>
<td>Fundamental Research Exclusion (FRE)</td>
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</tbody>
</table>

Signature Date

## COMMENTS:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Request for Admission to PhD Candidacy Form

(http://www.gradadmiss.gatech.edu/thesis/forms/PhDTopicForm.pdf)

This is a writable pdf file. Mouse-click above blanks to select and/or deselected.
Use the tab key to navigate through form, and type in information.

REQUEST FOR ADMISSION TO Ph.D. CANDIDACY

GEORGIA INSTITUTE OF TECHNOLOGY

OFFICE OF GRADUATE STUDIES & RESEARCH

NEW __________

REVISED _____ (if revised, check all that apply: _____Title _____Committee _____Description)

GTID#____________________________________

Print Name________________________________

First                        Middle                        Last

PART I. THESIS TOPIC

Thesis Title:________________________________________

Brief Description: (DO NOT EXCEED SPACE PROVIDED BELOW)

Approved by:

Signature of Student __________________________ Student ID # __________ Campus Box # __________

School Chair __________________________ School __________________________ Committee Member __________ Print last name & dept.

Thesis Advisor __________________________ Print last name & dept. __________________________ Committee Member __________ Print last name & dept.

Committee Member __________________________ Print last name & dept. __________________________ Committee Member __________ Print last name & dept.

PART II. COMPREHENSIVE EXAMINATION

The above student passed the Comprehensive Examination on ___/___/___ and is admitted to Ph.D. candidacy in __________

______________________________ __________________________ (Graduate Coordinator)

NOTE: If minor has been approved, please attach a copy to this form.

PART III. ADMISSION TO CANDIDACY

This student is admitted to candidacy for the Ph.D. Degree in __________________________ on ___/___/___

______________________________ (Dean, Graduate Studies)

rev. 2/17/00

Biomedical Engineering Graduate Program Handbook 100
PKU Request for Admission to PhD Candidacy Form

(http://acad.bme.gatech.edu/downloads/PKU%20Request%20for%20Admission%20to%20PhD%20Candidacy%20Form.doc)

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<tbody>
<tr>
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<td>学号</td>
<td>导师姓名</td>
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<td>开题报告完成时间</td>
<td>主要研究方向</td>
</tr>
<tr>
<td>主要学位论文题目</td>
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一、博士研究生开题报告评议意见和结果

评议小组对开题报告的意见：

<table>
<thead>
<tr>
<th>开题报告评审结果</th>
<th>通过</th>
<th>不通过</th>
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<tbody>
<tr>
<td>签字</td>
<td>年 月 日</td>
<td></td>
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</table>

二、博士研究生开题报告评议小组组成

<table>
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<th>姓名</th>
<th>职称</th>
<th>所在单位</th>
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<tr>
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<td>秘书（记录人）</td>
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院（系、所、中心）审核意见：

负责人签字： 年 月 日

三、开题报告会记录（另附页）

<table>
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<tr>
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<th>年 月 日</th>
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</table>
Request for Approval of Master’s Thesis Topic Form

(http://www.gradadmiss.gatech.edu/thesis/forms/MasterTopicForm.pdf)

REQUEST FOR APPROVAL OF MASTER’S THESIS TOPIC

GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF GRADUATE STUDIES AND RESEARCH

NEW ______
REVISED ______ (if revised, check all that apply: _____ Title _____ Committee _____ Description)

If revised, type the revised information and the new committee member, if applicable, in the appropriate place below. The student, advisor, and school chair (or Graduate Coordinator) should sign the form.

Name ____________________________________________ First Middle Last __________ ID ______
requests approval to prepare and present a thesis in partial fulfillment of the requirements for the

Master's degree in ______________________________________________________________________

Thesis Title: ______________________________________________________________________

Brief Description: (DO NOT EXCEED SPACE PROVIDED BELOW)

Approved by: ________________________________  ________________  __________________________
Signature of Student  Campus Box #

School Chair __________ School __________ Committee Member __________ Print last name & dept.

Thesis Advisor __________ Print last name & dept. __________ Committee Member __________ Print last name & dept.

Committee Member __________ Print last name & dept. __________ Committee Member __________ Print last name & dept.

________________________________________ (Dean, Graduate Studies)

rev. 3/3/03
# Doctoral Minor Form

*(http://www.gradadmiss.gatech.edu/thesis/forms/Minor_form.pdf)*

---

## Request for Approval of Doctoral Minor

**NAME OF STUDENT**: ___________________ GTID ________ **Date**: ____________

**SCHOOL OR MAJOR**: __________________________________________________________

Minor Concentration (e.g. computer simulation OR solid state physics):

**NOTE**: Doctoral Minors should be outside of the student’s area of specialization and preferably outside of the student's home school/degree program.

The following courses constitute the minor:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Description</th>
<th>Semester Taken</th>
<th>Credit Hours</th>
<th>Grade</th>
<th>If not taken @ GIT, where taken &amp; what level**</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Total Number of Semester Credit Hours ***: __________

* Credit hours: If taken on a quarter basis, multiply by .67 semester credit hours.
** Courses should be graduate level; senior-level courses may be allowed if not in major.
*** Must total at least nine semester credit hours completed and must be an overall GPA of 3.0 (b) or higher. No Pass/ Fail courses are allowed.

Approved: ___________________________ **Date**: ____________

Major Advisor [optional]

Approved: ___________________________ **Date**: ____________

School/Program Graduate Director

Noted: ___________________________ **Date**: ____________

Graduate Studies

Vice Provost of Graduate Education and Faculty Affairs

06/06/14
PKU Research Update Confirmation Form

北京大学 博士学位论文全面审查（预答辩）表

院、系：
姓 名：
学 号：

专业：
研究方向：
导师姓名：
预答辩时间：

一、学位论文题目：

二、学位论文摘要与关键词（由博士研究生本人填写，概 800-1000 字）

三、学位论文内容的审查（需在各栏中打“□”）

<table>
<thead>
<tr>
<th>审查项目</th>
<th>通过</th>
<th>不通过</th>
<th>审查项目</th>
<th>通过</th>
<th>不通过</th>
</tr>
</thead>
<tbody>
<tr>
<td>论文选题意义</td>
<td></td>
<td></td>
<td>主要观点论据的充分性</td>
<td></td>
<td></td>
</tr>
<tr>
<td>论文创造性成果</td>
<td></td>
<td></td>
<td>论文的逻辑严密性</td>
<td></td>
<td></td>
</tr>
<tr>
<td>文献资料掌握程度</td>
<td></td>
<td></td>
<td>论文表达条理清晰，重点突出</td>
<td></td>
<td></td>
</tr>
<tr>
<td>所用资料可靠性、实验结果和计算数据可靠性</td>
<td></td>
<td></td>
<td>预答辩表达、条理和层次，答辩材料的制作</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

博士研究生指导小组对研究生学位论文的总体评价

三、博士学位论文目录（总体框架）：

11
PKU Research Update Confirmation Form (Page 2)

四、博士研究生指导小组（或专家组）

组成 | 姓名 | 职称 | 所在单位 | 签字
--- | --- | --- | --- | ---
组长 |  |  |  | 
成员 |  |  |  | 

所在系（所、中心）审核意见：

主管签字：

年 月 日

五、博士研究生指导小组对论文的修改意见
Georgia Tech Online Application for Graduation

Submit electronically at http://registrar.gatech.edu/students/deginfo/oag.php.
Emory Application for Degree Form (Page 1)

Office of the Registrar
Application for Degree

For a degree to be conferred, this application must be completed and submitted to your school dean prior to the degree application deadline for the semester you apply to graduate. Dual degree applicants must complete a form for each degree.

PLEASE PRINT CLEARLY
OFFICIAL STUDENT NAME WILL APPEAR ON DIPLOMA

Name
(Full) (Middle) (Last)
Degree School Term & Year
(Bachelor of Arts, B.S., Master of Science, etc.) (Emory College, Theology, Public Health, etc.) (Fall, Spring or Summer when conferred)
Student ID Number Student Signature:

Academic Plan Information
1st Major:
(if applicable, please circle one below)
2nd Major / Co-major / Certificate / or Minor
Name of advisor:

Graduation Attendance
SPRING SEMESTER GRADUATES ONLY:
Attendance at commencement is obligatory unless your academic dean has sent to the Registrar, in advance, special permission for your degree to be awarded in absentia. In this case, the diploma will be mailed at a later date to the “diploma address.” Students who wish to graduate in absentia must get written permission from their school dean.

SUMMER OR FALL GRADUATES ONLY:
Your diploma will be mailed to the address listed below. There are no formal commencement exercises at the end of the summer or fall semesters. If you choose to participate in the following spring commencement exercises please indicate below:

[ ] I will participate in the Spring Commencement Exercises.

Address Information
DIPLOMA ADDRESS—Please provide your mailing address.
This address will be used to mail your diploma for any of the following reasons:
- Rain on Commencement Day
- Summer or Fall Graduates
- Honors Diploma
- Graduating in absentia (with Dean’s permission)

Street Address:__________________________________________________________
City: __________________________ State: __________________________ Zip: __________

POST GRADUATION EMAIL ADDRESS:_____________________________________

POST GRADUATION TELEPHONE NUMBER:_________________________________
INSTRUCTIONS FOR COMPLETING THE APPLICATION FOR DEGREE

PRINT all information except your signature.

Name for Diploma: Emory University will print the student’s official name of record on the diploma at the time of graduation. The full name will be used. The student’s name is recorded as submitted at the time of application for admission. Students are expected to supply their full legal name on the application for admission. Variations of the student’s official name of record will not be permitted on the diploma. Students wishing an alternate name on their diploma are advised to consider an official name change.

Signature: Please sign the application.

ID Number: Please include your ID number.

Please note: Schools may have additional forms which need to be completed in addition to this application for degree. Contact your school for further details.

ALL APPLICATIONS FOR DEGREE MUST BE SUBMITTED TO YOUR ACADEMIC DEAN BEFORE THE DATE LISTED ON THE ACADEMIC CALENDAR. LATE APPLICANTS WILL BE CHARGED A $25.00 LATE APPLICATION FEE.

*** LIST OF DEGREES ***

<table>
<thead>
<tr>
<th>Associate of Arts</th>
<th>Master of Science in Nursing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Arts **</td>
<td>Master of Laws</td>
</tr>
<tr>
<td>Bachelor of Science **</td>
<td>Juris Master</td>
</tr>
<tr>
<td>Bachelor of Business Administration</td>
<td>Master of Science in Public Health</td>
</tr>
<tr>
<td>Bachelor of Medical Science</td>
<td>Master of Sacred Music</td>
</tr>
<tr>
<td>Bachelor of Science in Nursing</td>
<td>Master of Theology</td>
</tr>
<tr>
<td>Master of Arts</td>
<td>Master of Theological Studies</td>
</tr>
<tr>
<td>Master of Science</td>
<td>Master of Divinity</td>
</tr>
<tr>
<td>Master of Arts in Teaching</td>
<td>Doctor of Juridical Sciences</td>
</tr>
<tr>
<td>Master of Music</td>
<td>Doctor of Theology</td>
</tr>
<tr>
<td>Master of Business Administration</td>
<td>Doctor of Philosophy</td>
</tr>
<tr>
<td>Master of Business Studies</td>
<td>Doctor of Law</td>
</tr>
<tr>
<td>Master of Public Health</td>
<td>Doctor of Medicine</td>
</tr>
<tr>
<td>Master of Medical Science</td>
<td>Doctor of Physical Therapy</td>
</tr>
<tr>
<td>Master of Development Practice</td>
<td></td>
</tr>
</tbody>
</table>

** Emory College Students MUST apply for either a Bachelor of Arts degree OR a Bachelor of Science degree. If you are double-major and have completed requirements for both a BA and a BS you MUST choose one OR the other for diploma purposes.
Biomedical Engineering Graduate Program Handbook

PKU Degree Petition Form

(https://acad.bme.gatech.edu/downloads/PKU%20Degree%20Petition%20Form.doc)

北京大学
博士学位论文答辩申请书
（此表由博士研究生本人填写，一式两份，一份存学校档案，一份存研究生个人档案。）

姓名：
学号：
院、系：
专业：
研究方向：
指导教师：

学位论文题目：

学位论文答辩申请书（简要概述论文研究的主要内容、创新点及成果等，不超过500字。）

本人在中国科学院大学制定的培养方案完成课程学习和学位论文答辩，现申请中国科学院大学
博士学位论文答辩，特此申请批准。

签名：

年 月 日

请用5号宋体填写，此表格不能折叠。
Georgia Tech Certificate of Thesis Approval for Doctoral Students Form

(www.gradadmiss.gatech.edu/thesis/forms/CertiPhD.pdf)

GEORGIA INSTITUTE OF TECHNOLOGY
Office of Graduate Studies & Research

CERTIFICATE OF THESIS APPROVAL FOR DOCTORAL STUDENTS

GTID# _______________________

Name: _______________________
First Middle Last

Thesis Title:

We, the below signed, hereby state our full approval of the thesis submitted by the above student in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the School/College of ____________________________

Approved by:

Thesis Advisor ________________________ Print last name & dept. Member, Reading Committee ________________________ Print last name & dept.

Member, Reading Committee ________________________ Print last name & dept. Member, Reading Committee ________________________ Print last name & dept.

Member, Reading Committee ________________________ Print last name & dept. Member, Reading Committee ________________________ Print last name & dept.

The above named student has completed all departmental requirements and oral presentation.

_________________________________________ Date

School Chair/Graduate Coordinator

************************************************************

(GEOGRAPHT TECH GRADUATE OFFICE USE ONLY)

The Georgia Tech Graduate Office has received the above dissertation and appropriate forms.

_________________________________________ Date

Signature

rev. 1/2002
Georgia Tech Certificate of Thesis Approval for Master Students Form

http://www.gradadmiss.gatech.edu/thesis/forms/CertifiMS.pdf

GEORGIA INSTITUTE OF TECHNOLOGY
Office of Graduate Studies & Research

CERTIFICATE OF THESIS APPROVAL FOR MASTER STUDENTS

GTID#__________________________

Name: ____________________________________________________________

First Middle Last

Thesis Title: _______________________________________________________

We, the below signed, hereby state our full approval of the thesis submitted by the above student in partial fulfillment of the requirements for the degree of ____________________________________________ in the School/College of ____________________________________________.

APPROVED BY:

______________________________________________________________
Chair, Thesis Reading Committee                                      Member, Reading Committee

______________________________________________________________
Member, Reading Committee                                             Member, Reading Committee

______________________________________________________________
Member, Reading Committee                                             Member, Reading Committee

The above named student has completed all departmental requirements and oral presentation, if applicable.

______________________________________________________________
School Chair/Graduate Coordinator                                      Date

*****************************************************

(GEORGIA TECH GRADUATE OFFICE USE ONLY)

The Georgia Tech Graduate Office has received the above thesis and appropriate forms.

______________________________________________________________
Signature                                                        Date

9/2001
Emory Report of Completion of Requirements for Doctoral Degree Form

(http://www.gs.emory.edu/uploads/Academic%20Affairs/PhD%20Complete.pdf)

---

**Report of Completion of Requirements for Doctoral Degree**

The Graduate School will not accept a dissertation until this form is submitted. Please type your responses when possible, and submit a printed copy with signatures.

**Doctoral Candidate**

I hereby attest that I have completed all requirements for the degree of Doctor of Philosophy.

Name: ____________________________ Date: ______________ Signature: ____________________________

Program of Study: __________________________ Email: ____________________________ Emp ID __________

Dissertation title: __________________________

---

**Dissertation Committee**

Please indicate below whether the candidate successfully completed the dissertation and passed the oral examination for the PhD. (If necessary, please add any further comments on the back of this sheet.)

<table>
<thead>
<tr>
<th>Printed Name</th>
<th>Dissertation Acceptable</th>
<th>Dissertation Unacceptable</th>
<th>Oral Examination Passed</th>
<th>Oral Examination Failed</th>
<th>Signature</th>
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</thead>
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<tr>
<td>Advisor(s):</td>
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</tbody>
</table>

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**Program / Division**

The candidate has successfully completed all requirements for the PhD, including a dissertation.

Director of Graduate Studies *(If the DGS is unavailable, a department chair or program director can sign.)*

(printed name) __________________________ (signature) Date: __________

Division Director *(For GDBBS students only)*

(printed name) __________________________ (signature) Date: __________

---

**Graduate School Committee Reconciliation (to be completed by Graduate School staff)**

☐ The Advisor(s) and the members of the dissertation committee are the same as the Advisor(s) and members indicated on the candidate’s Dissertation Committee or Change of Dissertation Committee form.

If there is a discrepancy, notify the candidate, the Advisor, and the Director of Graduate Studies. The dissertation will not be approved by the Dean until the discrepancy has been addressed.
Emory Report of Completion of Requirements for Master’s Degree Form

(http://www.gs.emory.edu/uploads/Academic%20Affairs/Master%20Completion.doc)

Report of the Completion of Requirements for Master’s Degree

Submit this form, completed and signed, with your approved master’s thesis and an unofficial transcript to the Laney Graduate School.

Master’s Degree Candidate
Name: ________________________________ Email: ________________________________ Empl ID: ________________________________

Program: ________________________________ (If applicable, include both division and program.)
Semester and year: ________________________________ Is this a terminal master’s degree? □ Yes □ No
Title of thesis or project: ________________________________

Program
This student has completed all requirements for the master’s degree as follows:

1. Residence and courses: The student has cleared any incomplete grades. □ Yes □ N/A
   - Semesters of residence and credit hours of course work: ________________________________

2. Examination dates: Written exam(s): ________________________________ Oral defense: □ N/A

3. Language requirement met? □ Yes □ No □ N/A

4. Is this master’s degree granted on the basis of doctoral candidacy? □ Yes □ No

5. Acceptable □ thesis or □ project completed: □ Yes □ No □ N/A
   (Please answer both #4 and #5)
   Subject to satisfactory completion of the courses (if any) in which the student is now enrolled, I certify that the above master’s candidate has completed all requirements for the degree shown. If the student is now enrolled in courses, I will notify the professors concerned that grades MUST be sent to the Registrar before the usual deadline to ensure that the candidate may receive the degree at the end of the current semester.
   (Note: Advisor and two committee members must be Emory University graduate faculty.)

Advisor
Name: ________________________________ Signature and date: ________________________________
Rank: ________________________________ Program: ________________________________

Committee Members (if applicable)
Name: ________________________________ Signature and date: ________________________________
Rank: ________________________________ Program: ________________________________
Name: ________________________________ Signature and date: ________________________________
Rank: ________________________________ Program: ________________________________
Name: ________________________________ Signature and date: ________________________________
Rank: ________________________________ Program: ________________________________
Name: ________________________________ Signature and date: ________________________________
Rank: ________________________________ Program: ________________________________

Program DGS / Director
Name: ________________________________ Signature and date: ________________________________

Division Director (GDBBS and GDR)
Name: ________________________________ Signature and date: ________________________________
Emory Dissertation Approval Form

(\url{http://www.gs.emory.edu/uploads/Academic%20Affairs/Submit%20Instructions.pdf})

\begin{frame}
\frametitle{Approval Sheet}
The approval sheet should be designed according to the plan below. See next page for several comments.

\begin{center}
\begin{tabular}{l}
[Title of the Thesis or Dissertation] \\
By \\
[Name of author] \hspace{2cm} [Degree] \hspace{2cm} [Field] \\
\hline \\
Advisor \hspace{3cm} [Advisor’s signature] \\
[Member’s name, typed] \hspace{2cm} Advisor \\
\hline \\
[Member’s signature] \\
[Member’s name, typed] \hspace{2cm} Committee Member \\
\hline \\
[Member’s signature] \\
[Member’s name, typed] \hspace{2cm} Committee Member \\
\hline \\
[Member’s signature] \\
[Member’s name, typed] \hspace{2cm} Committee Member \\
\hline \\
Accepted: \\
Lisa A. Tedesco, Ph.D. \hspace{2cm} Dean of the James T. Laney School of Graduate Studies \\
\hline \\
Date \\
\end{tabular}
\end{center}

Instructions for Submitting Your Thesis or Dissertation

Page 10 of 15
Abstract Cover Page
The abstract cover page should be designed according to the plan below. See next page for several comments.

[Title of Thesis or Dissertation]

By

[Name of author]
[Previous academic degree]

Advisor: [name of advisor, degree]

An abstract of
A [dissertation/thesis] submitted to the Faculty of the
James T. Laney School of Graduate Studies of Emory University
in partial fulfillment of the requirements for the degree of
[Doctor of Philosophy/Master of Arts/Science/etc.]
in [field]
[year]

Instructions for Submitting Your Thesis or Dissertation
PKU Thesis Defense Records


<table>
<thead>
<tr>
<th>北京大学</th>
</tr>
</thead>
<tbody>
<tr>
<td>攻读博士学位研究生学位论文答辩记录</td>
</tr>
<tr>
<td>(本表一式一份，存研究生学籍档案。)</td>
</tr>
</tbody>
</table>

| 姓名： | 专业： |
| 学号： | 研究方向： |
| 院、系： | 导师姓名： |

博士学位论文题目：

用简明语言记录答辩过程，答辩委员会提出问题和研究生回答情况：

答辩时间：
答辩地点：

答辨委员会秘书或指定记录人： 年 月 日

可加页。
### PKU Certificate of Thesis Approval Form

####北京大学博士学位论文答辩委员会决议书

（本表由博士学位论文答辩委员会秘书填写，一式两份，一份留存学院教学档案，一份留存研究生档案中。）

<table>
<thead>
<tr>
<th>院系</th>
<th>专业</th>
<th>姓名</th>
<th>研究方向</th>
<th>学号</th>
<th>导师姓名</th>
</tr>
</thead>
</table>

| 学位论文题目： |                                   |                                   |                                   |                                   |                                   |

<table>
<thead>
<tr>
<th>答辩委员会成员讨论和答辩情况的学术评价（主要就论文选题意义创新成果及学术水平、论文存在的不足之处，以及博士生答辩情况等方面）</th>
</tr>
</thead>
</table>

答辩委员会表决结果：同意通过

答辩委员会组成

答辩委员会主席：（签名）

委员：（签名）
<table>
<thead>
<tr>
<th>PKU Degree Approval Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>北京大学攻读博士学位研究生学位审批表</td>
</tr>
<tr>
<td>(本表一式两份，一份寄存学校档案室，一份寄存研究生本人档案中。)</td>
</tr>
<tr>
<td>姓名：</td>
</tr>
<tr>
<td>学号：</td>
</tr>
<tr>
<td>系：</td>
</tr>
</tbody>
</table>

攻读博士学位学习期限：

博士学位论文题目：

研究生个人申请：

本人在北京大学攻读博士学位研究生期间，已经按照培养方案完成课程学习和学位论文，并已通过了博士学位论文答辩，现申请攻读博士学位，请给予评定。

博士研究生签名：

年 月 日

学位评定委员会对授予学位的表决结果：

学位评定委员会于 年 月 日召开会议，应到 委员 人，实到 委员 人。

同意授予博士学位的委员 人，未同意授予博士学位的委员 人。

表决结果：

□ 授予学位 □ 不授予学位

年 月 日

学位评定委员会主席（签字）：

校学位评定委员会审批意见：

校学位评定委员会公章：

年 月 日

校学位评定委员会主席签章：

年 月 日

备注：

请用5号宋体填写，此表格不能折叠。
PKU Statement of Originality of Thesis & Copyright Statement

北京大学学位论文原创性声明和使用授权说明

原创性声明

本人郑重声明，所呈交的学位论文，是本人在导师的指导下，独立进行研究工作所取得的成果。除文中已注明引用的内容外，本论文不含任何其他个人或集体已经发表或撰写过的文字或成果。对本文的研究做出重要贡献的个人和集体，均已在文中以明确方式标明。本声明的法律责任由本人承担。

论文作者签名：日期：年 月 日

学位论文使用授权说明

本人完全了解北京大学关于收集、保存、使用学位论文的规定，即：
按照学校要求提交学位论文的印刷本和电子版；
学校有权保存学位论文的印刷本和电子版，并提供目录检索与阅览服务；
学校可以采用影印、缩印、数字化或其它复制手段保存论文；
在不以赢利为目的前提下，学校可以公布论文的部分或全部内容。

（保密论文在解密后遵守此规定）

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日期：年 月 日
Statement of originality of the thesis & copyright statement

Statement of originality of the thesis

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person or material which has to a substantial extent been accepted for the award of any other degree or diploma at any university or other institute of higher learning, except where due acknowledgment has been made in the text.

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Doctoral Dissertation Agreement Form

This document is found online at
GT Enrollment Waiver Form

(http://www.gradadmiss.gatech.edu/thesis/forms/Enrollment_Waiver_form.pdf)

TO: GIT Graduate Studies and Research

I request a waiver of the Institute requirement that a graduate student be registered during the semester in which he or she graduates (enrollment waiver).

I have completed all degree requirements and will no longer require any of the Institute’s facilities or faculty time to complete the

_____ MS without thesis (course work only)/ _____ MS with thesis option/ _____ Ph.D. degree.

I propose graduating during the ________________ (semester) of 20__ (year). I am/was registered in the semester preceding my proposed graduation semester, the semester for which I am requesting a waiver. This includes summer semesters. [Exception: non-thesis master’s students who have completed all coursework prior to the graduation semester need not have been enrolled the prior term.]

I understand that I may apply for this waiver only once. If a thesis is required for my degree and I do not submit my final approved thesis to the Graduate Office before the end of the registration period for the above specified semester, I may have to register for at least 3 hours.

_________________________ __________________________
Signature Print Name

_________________________ __________________________
GT ID Number School/College

Thesis students MUST turn in the following at the same time as this form: final approved thesis uploaded to the ETD web site; signed Certificate of Thesis Approval and any other required documents submitted to GT Graduate Studies. (Oral presentation and all corrections must be completed before the submission).

IMPORTANT: This enrollment waiver does not automatically reactivate your degree petition. You must meet the Registrar’s normal deadlines to petition to graduate or reactivate your degree petition for this term.

CERTIFIED AND RECOMMENDED FOR APPROVAL:

_________________________
Major Advisor

_________________________
School Chair or Graduate Coordinator

_________________________ __________________________
Graduate Studies Office for the Graduate Dean Date
APPENDIX D

BME Doctoral Program Timeline

This chart displays the expected timeframe for completion of the major milestones in the program for the class entering in Fall 2014.
APPENDIX E

BME & PKU Graduate Student Checklist
Atlanta Campus

This checklist includes the major steps that must be completed and documents submitted by each BME graduate student. The timeline/deadlines for all forms are described in the relevant chapters of the handbook and/or published on the websites of the responsible departments.

The recipients for the various documents are designated in parentheses as follows: GPC – Graduate Program Coordinator, GT Grad – GT Graduate Office, GT Reg – GT Registrar, EU Grad – EU Graduate School, EU Reg – EU Registrar, OSP – GT Office of Sponsored Programs, PKU GPC – PKU Graduate Program Coordinator (Beijing campus). Items designated as PKU are applicable only for students in that program.

All forms that require departmental approval must be given to the GPC at least two weeks in advance of the published deadlines. Copies of ALL completed/signed forms must be given to the GPC for the student’s file in the BMED Academic Office.

☐ Final Admission Paperwork (GT Grad)
☐ PKU Admission Paperwork (PKU GPC)
☐ Online Student Support Form (must be updated each semester)
☐ Faculty Advisor Assignment
☐ Program of Study (GPC)
☐ Qualifying Exam – Honor Code Pledge & Academic Profile (GPC)
☐ Thesis Committee Approval Request (GPC)
☐ Proposal Announcement (GPC & PKU GPC)
☐ Proposal Document to Committee
☐ Proposal Presentation
☐ PKU BME Project Initiation Form (OSP & GPC)
☐ PKU Travel to Beijing Campus (GPC & PKU GPC)
☐ Admission to PhD Candidacy or Master’s Thesis Topic: ☐ GT (GPC) ☐ PKU (PKU GPC)
☐ Doctoral Minor (GPC)
☐ PKU Research Update Confirmation (PKU GPC)
☐ Applications for Graduation/Degree: ☐ GT (GT Reg) ☐ EU (EU Grad) ☐ PKU (PKU GPC)
☐ Thesis Defense Announcement (GPC & PKU GPC)
☐ Thesis Draft to Committee
☐ Thesis Defense
☐ Thesis Approval forms: ☐ GT Certificate of Thesis Approval (GPC) – 2 originals for PKU students
*NOTE: Submit plan for next career step to GPC via email at this time.
☐ EU Report of Completion of Requirements (EU Grad) – 2 originals for PKU students
☐ EU Dissertation Approval Form & Title Page (EU Grad) – 1 copy for submission with printed copy of thesis
☐ PKU Thesis Defense Records (PKU GPC)
☐ PKU Certificate of Thesis Approval (PKU GPC)
☐ PKU Statement of Originality of Thesis & Copyright (PKU GPC)
☐ PKU Degree Approval Form (PKU GPC)
Format Check of Thesis (GT Grad)

Thesis Submission (final draft):
- Electronic version online submission (GT Grad)
- 1 copies of Printed version (EU Grad)
- Electronic version emailed to PKU (PKU GPC)

Thesis Submission related forms:
- 2 copies of Thesis Abstract (GT Grad)
- 2 copies of Thesis Cover Page (GT Grad)
- Survey of Earned Doctorates (GT Grad)
- SmarTech Repository Agreement (GT Grad)
- Withholding Request of Dissertation for One Year (GT Grad) – 2 copies (1 for GT and 1 for submission with printed copy of thesis to Emory)

*NOTE: Print certificates for GT Grad of last three after completing online.

Emory Graduation Education Exit Survey (EU Grad)
(https://emoryir.az1.qualtrics.com/SE/?SID=SV_9vRUzHGiacOuJtH)

*NOTE: The subsequent link to the Survey of Earned Doctorates should NOT be completed as it is a duplicate of what is completed on the GT side. A hard copy of the certificate showing completion of the survey should be submitted with the hard copies of the thesis.

Georgia Tech Enrollment Waiver, if applicable (GT Grad)

Commencement Attendance Notification:
- Inform GT if attending (GT Reg)
- Inform Emory if NOT attending (EU Grad)
- Inform PKU if NOT attending (PKU GPC)