Overview of the Sequential Procedure for Obtaining the Ph.D. Degree
(Updated and approved by COGS on October 23, 2008 and updated on August 12, 2009)

Phase 1: (From matriculation through admission to candidacy)

Advisement of Students Entering the Program
All students entering the Program will be advised by a committee composed of the Program Director, Associate Program Director, and the Graduate Advisor of Record (GAR). This Committee will monitor the student’s progress and provide guidance in:

(a) successful completion of contingencies of admission
(b) submission of an updated Program of Study (http://engineering.utsa.edu/bme/bme_program/forms.html) and curriculum vitae (in Word) to the BME Program office each semester. Students will meet with the Advisory Committee prior to the beginning of the Fall and Spring semesters.
(c) selection of electives needed to complete the program
(d) selection of a research area of specialization and a research advisor.

Approval of Research Advisor
After the student has selected an area of research specialization and a faculty member who has agreed to serve as Research Advisor, the Committee on Graduate Studies (COGS) will review the proposed selection. If the selection is approved, the faculty member will be designated by the COGS as the student’s research advisor. The Research Advisor:

(a) serves as counselor on academic matters and monitors the student’s progress by (1) meeting with the student before the Fall and Spring semesters to update the Program of Study (http://engineering.utsa.edu/bme/bme_program/forms.html) and (2) ensuring that the updated Program of Study form and an updated curriculum vitae is submitted to the BME Program Office
(b) assists in the selection of appropriate elective courses for the student’s research area of specialization and completion of all program requirements

Typically, the Research Advisor becomes the student’s Supervising Professor after he/she has become a candidate for the doctoral degree.

Overview of Written and Oral Qualifying Examinations
The procedure described below will become effective with students enrolling in Fall 2009. Students who matriculated in prior years should refer to the procedures that were in effect in the year they enrolled as well as speak with their Graduate Advisor, Supervising Professor, or the COGS Chair for specific requirements that may apply to them.

All students seeking a doctoral degree must first be admitted to candidacy. One of the requirements for admission to candidacy is passing a doctoral Qualifying
Examination (QE). The QE consists of a two-part written examination that demonstrates proficiency in four core areas of study (Biomaterials, Biomechanics, Bioelectronics/Imaging, and Biology) and an oral examination in their chosen area of research specialization. A timetable for completing all parts of the QE can be found at the following link (http://engineering.utsa.edu/bme/bme_program/candidacy_dissertation/phd/year2.html). Students are advised that failure to meet this timetable will require approval from their Supervising Professor and the COGS; in some instances, further approval from the Dean of the College of Engineering and the Deans of both Graduate Schools may also be required. For more information, students should consult the UTSA and UTHSCSA doctoral degree regulations for other requirements.

The QE is administered after the completion of all required coursework and before the student is admitted to candidacy (http://engineering.utsa.edu/bme/bme_program/candidacy_dissertation/phd/admission.html). This exam is comprehensive in nature and consists of three parts, two written and one oral. The COGS is responsible for determining the format of the exam and the composition of the Qualifying Examination Committee (QEC), which must include members from the BME Program Core faculty representing both UTSA and UTHSCSA. The QEC will be responsible for preparation, administration, and evaluation of the first written exam (Level 1); all students will take the same Level 1 written examination, prepared by this committee, at the same date and time. The QEC will forward a report on each student’s performance to the COGS within 3 weeks of administering the Level 1 exam for discussion and approval. After approval by the COGS, students and their Supervising Professor will be notified of the results by e-mail. In addition to the e-mail, a letter will be sent via the U.S. Postal Service to the student’s current address on file in the Program office. The letter will contain the same information sent in the e-mail, but will be signed by the Program Director and the COGS Chair. The second written exam (Level 2) and the oral exam will be prepared and administered by the student’s Doctoral Dissertation Committee (see the following links for additional details: [http://engineering.utsa.edu/bme/bme_program/candidacy_dissertation/phd/written_portion.html] and [http://engineering.utsa.edu/bme/bme_program/candidacy_dissertation/phd/oral_portion.html]). The results of these two exams will be processed in the same manner as described for the Level 1 exam. Once all three parts of the QE have been passed and the other requirements satisfied (http://engineering.utsa.edu/bme/bme_program/candidacy_dissertation/phd/admission.html), the student will be recommended to the Graduate School for admission to candidacy.

Written Portion of the Qualifying Examination
The written portion of the QE consists of two separate examinations, Level 1 and Level 2. The Level 1 QE covers the four main areas of study in the curriculum
(Biomaterials, Biomechanics, Bioelectronics/Imaging, and Biology [to include Human Anatomy or Physiology]). The Level 2 QE typically covers the student’s area of research specialization. Prior to taking the Level 2 QE, students must select one disciplinary area of major emphasis from the four areas of study.

Prior to taking the first written exam (Level 1), the student must have a Program of Study on file in the offices of the Program Director and Associate Program Director. The Level 1 QE will be scheduled in December-January of year 2 of the student’s program. Students wishing to take the exam must submit their request in writing to the Program Director by the 4th week of the Fall semester of year 2. In this letter, the student must indicate that:

1. he/she has completed all required coursework and has an approved Program of Study on file
2. he/she has declared a research area of specialization for the Level 2 QE (Biomaterials, Biomechanics, Bioelectronics/Imaging, or Biology).

Students must complete all required courses prior to taking the Level 1 QE and the exam must be taken no later than six months after completion of all required coursework. Deviation from this schedule requires approval of the Program Director and the COGS. Students who fail their first attempt at the Level 1 QE are allowed a second opportunity to pass the exam on the next administration in June-July of year 2. No more than two attempts to pass the written exam are permitted.

For successful completion of the written QE, all students are required to demonstrate proficiency in all four disciplinary areas by passing the Level 1 exam. Questions on this exam focus on application and factual recall of information from course materials. The Level 2 QE is prepared, administered, and graded by the student’s Doctoral Dissertation Committee (see the following link for information on this committee: [http://engineering.utsa.edu/bme/bme_program/candidacy_dissertation/phd/nominate_committee.html](http://engineering.utsa.edu/bme/bme_program/candidacy_dissertation/phd/nominate_committee.html)). The student must take the Level 2 QE no later than 30 days after being notified by e-mail of passing the Level 1 exam. The Level 2 QE will cover information in the student’s declared area of major emphasis and will probe the student’s ability to broadly apply knowledge in the area and demonstrate understanding beyond simple factual recall. Students should anticipate that familiarity with the content of core courses outside the four disciplinary areas (e.g.: Ethics in Research, Experimental Design and Data Analysis, Engineering Analysis) may also be required to successfully answer questions on the exam. The Doctoral Dissertation Committee will forward a report on the student’s performance within 3 weeks of administering the Level 2 QE for discussion and approval by the COGS. Students will be notified of the results of their exam in the same manner as described for the Level 1 QE.

**Oral Portion of the Qualifying Examination**
The oral QE must be taken within six months of passing the Level 2 QE. No more than two attempts to pass the oral QE are permitted.

During the first year, students should be considering research topics and potential Supervising Professors for their dissertation. After passing the Level 1 QE, students will formally select a project and Supervising Professor (n.b.: Because of the compressed timeframe between the Level 1 and Level 2 QE, it is strongly advised that a Supervising Professor, potential Doctoral Dissertation Committee members, and a research project be identified prior to taking the Level 1 QE). The Supervising Professor must be a member of the Core Faculty of the UTSA/UTHSCSA Joint Graduate Program in Biomedical Engineering. After finding a faculty member who consents to be Supervising Professor, the student should submit a request for appointment of his/her Supervising Professor to the COGS for approval. When the student’s dissertation research area becomes clear, a Doctoral Dissertation Committee (described later in this section) should be assembled and a dissertation proposal, which will serve as the basis for the oral QE, prepared under the direction of the Supervising Professor.

A four member Doctoral Dissertation Committee, chaired by the student’s Supervising Professor, will conduct both the second written QE (Level 2) and the oral QE. Members of the committee will be selected by the student and Supervising Professor and approved by the COGS. In addition to the Committee Chairman (Supervising Professor), who must be a member of the Core faculty in the BME Program, three additional committee members will be selected. One member will be selected from the BME faculty at UTSA, one member from the BME faculty at UTHSCSA, and one member from either UTSA or UTHSCSA but outside BME.

The dissertation proposal must be submitted to members of the student’s Doctoral Dissertation Committee at least two weeks prior to the oral QE. The dissertation proposal should:

- explain the basic idea of the dissertation topic
- present an overview of the background and related work in the field
- describe why the topic is original, challenging, and important
- state what kind of results are expected and present preliminary results, if any
- make a plausible argument that these results are obtainable within a reasonable amount of time

In the dissertation proposal, it is suggested that the student address each of the above points following the format used in the preparation of NIH grant applications (PHS 398). Other formats for the proposal are acceptable, if the student’s committee agrees. Additional information on how to prepare an NIH
application is available through the NIH website. This link [http://grants.nih.gov/grants/funding/phs398/phs398.pdf](http://grants.nih.gov/grants/funding/phs398/phs398.pdf) contains the relevant pdf. The dissertation proposal should include information found in the sections listed below in a standard PHS398 proposal. For the oral QE, the proposal should be 20-30 double spaced pages in length (not including references). A brief description of the content of each section appears below.

**Specific Aims/Abstract:** The abstract should *summarize* the problem to be addressed, the hypothesis or technology to be tested, the specific aims to test the hypothesis or technology, the key experimental approaches to be used, and the significance of the work proposed.

**Background and Significance:** The current state of our knowledge about the research topic should be outlined. Gaps in our understanding should be noted. Critical references to the work of others in the field should be cited and then listed at the end of the proposal. In one paragraph, the significance of the work should be explained.

**Preliminary Studies:** In this section, the results of any preliminary studies performed by the student should be described. Typically, these experiments demonstrate the feasibility of the proposed studies and the ability of the student to accomplish the work proposed.

**Research Design and Methods:** In this section, the procedures and analyses to be performed are described. Although the format for this section can be quite variable, one effective approach is to describe the strategy for accomplishing each aim listed in the abstract. This facilitates the writing, as well as the reading, of the proposal. Each aim should include an hypothesis to be tested, the methods to be used, a description of potential pitfalls and a plan for overcoming them, and the statistical methods to be used in analyzing the data. A timetable for accomplishing the proposed studies is also to be included.

**Literature Cited:** List all references cited in the proposal. Be sure to provide complete reference citations and follow the format described in the PHS 398 instructions.

The following link ([http://www.niaid.nih.gov/ncn/grants/app](http://www.niaid.nih.gov/ncn/grants/app)) to several different research plans contains a number of tips for preparing a well written proposal.

Once the Supervising Professor and student agree that the dissertation proposal is ready for presentation, the student must schedule the oral QE with his/her committee members. When a date has been selected, it is the student’s responsibility to arrange for a room reservation at UTSA by contacting Margaret Boullosa (Margaret.Boullosa@utsa.edu) or at UTHSCSA by contacting Joanne Wright (wrightj@uthscsa.edu). See “Public Presentation of the Dissertation Proposal” for additional information.

The format of the oral QE will typically consist of an oral presentation to the Doctoral Dissertation Committee in a closed door session. The oral presentation will be approximately 40 minutes in length, followed by a question and answer
period from the Committee. However, the format of the oral QE is at the sole discretion of the Doctoral Dissertation Committee responsible for administering the exam. At the completion of questioning, the student will be asked to leave and the Committee will discuss and then vote on the student’s performance in the oral QE. The Doctoral Dissertation Committee must approve of the candidate’s performance on this exam with no more than one member dissenting.

After the student passes both the written and oral portions of the QE, he or she is admitted to candidacy. Students with primary institutional affiliation with UTSA should obtain and complete the “Completion of the Qualifying Examination for the Doctor of Philosophy in Biomedical Engineering” form ([http://engineering.utsa.edu/bme/bme_program/pdfs/completion_exam_fill.pdf](http://engineering.utsa.edu/bme/bme_program/pdfs/completion_exam_fill.pdf)) and submit it to the COGS for approval.

**Admission to candidacy**

To be admitted to candidacy for the doctoral degree in Biomedical Engineering, the student must receive approval from the COGS. Approval by the COGS is contingent upon the following:

- a. Satisfactory completion of all required courses and an approved Program of Study form on file with the Program Director;
- b. Cumulative grade point average of at least 3.0 in all coursework undertaken since matriculation in the program;
- c. Confirmation that the student has passed both the written (Level 1 and Level 2) and oral qualifying examinations;
- d. Report by the student's research advisor (Supervising Professor) and other graduate faculty members, as appropriate, that the student has clearly evidenced the potential for productive and independent investigation.

If, in its overall evaluation of the eligibility of the student for admission to candidacy, the COGS is in favor of admission, it shall submit the appropriate forms for approval. At UTHSCSA, the process is initiated by the Doctoral Dissertation Committee by completing and submitting a “Petition for Admission to Candidacy” form (GSBS Form 32; [http://engineering.utsa.edu/bme/bme_program/pdfs/forms/student/form_32_1.pdf](http://engineering.utsa.edu/bme/bme_program/pdfs/forms/student/form_32_1.pdf)) to the COGS which will then forward it to the Dean of the Graduate School for approval. Documentation of satisfactory completion of all requirements listed above is to be included with the Petition. In addition, each Supervising Professor is required to sign the form to certify his/her view of the student's potential for productive and independent investigation. At UTSA, a similar process occurs with the Supervising Professor completing and submitting an “Application for Candidacy for the Doctoral Degree” form ([http://engineering.utsa.edu/bme/bme_program/pdfs/candidacy_BME_PhD.pdf](http://engineering.utsa.edu/bme/bme_program/pdfs/candidacy_BME_PhD.pdf)) to the COGS for approval and forwarding to the Associate Dean for the College of Engineering and the Dean of the Graduate School.
The Deans may approve or disapprove the recommendation or request further documentation. When the Deans have approved admission of the student to candidacy, the candidate enters Phase II of the program.

**Public Presentation of the Dissertation Proposal**

All doctoral students are required to make a public presentation of their doctoral dissertation proposal within 12 months of passing their oral QE. The seminar should include information presented at the oral QE as well as any data acquired since becoming a doctoral candidate.

When the Supervising Professor and student agree on a date for the public presentation, the student should contact Margaret Boulosa (Margaret.Boulosa@utsa.edu) at UTSA or Joanne Wright (wrightjp@uthscsa.edu) at UTHSCSA for a room reservation. Once a room has been secured, the student should prepare an announcement of the seminar using the template on the BME Program website (see the “Presentation of Doctoral Dissertation Proposal” template) and submit it to Joanne Wright (wrightjp@uthscsa.edu) for electronic distribution at least 3 weeks in advance of the scheduled date. Hard copies of the announcement must be prominently posted by the student on both campuses 2 weeks prior to the presentation to allow sufficient time for individuals outside of the BME Program an opportunity to attend. **Failure to advertise the time and place of the public presentation, according to this schedule, will result in having to reschedule the presentation.**

**Phase 2:** (From admission to candidacy through granting of the degree)

**Selection of the Supervising Professor**

As soon as possible after the student is admitted to candidacy, the faculty member of the BME Program (n.b.: the proposed mentor must be selected from the Core faculty of the Program) who will serve as the Supervising Professor of the dissertation research shall be decided upon by mutual agreement among the candidate, the faculty member, and the COGS. Normally, the Research Advisor who guided the student's preliminary research activities and coordinated/chaired both the Level 2 written and oral QEs continues as Supervising Professor, but this arrangement is not obligatory.

**Nomination of the Doctoral Dissertation Committee**

After passing the QE and receiving approval of the dissertation proposal by the COGS, the Supervising Professor and the candidate will make a formal request to the COGS regarding the composition of the Doctoral Dissertation Committee for the dissertation research. It should be noted that the Doctoral Dissertation Committee not only functions to supervise the dissertation research after the student becomes a Ph.D. candidate, but is involved in administering the Level 2 and oral QE. *(The only difference in the composition of the Doctoral Dissertation Committee and the committee responsible for administering the Level 2 and oral QE is that upon becoming a candidate the committee must include an external committee member who has his/her primary appointment outside UTSA and UTHSCSA.)*

The Doctoral Dissertation Committee consists of at least five members, including the Supervising Professor and two members of the BME Graduate Faculty [one member from UTSA and one member from UTHSCSA]. **Under no circumstances**
should this distribution of BME faculty between UTSA and UTHSCSA become uneven. The Doctoral Dissertation Committee will also include one member of the graduate faculty outside BME from either UTSA or UTHSCSA. In addition, at least one external faculty member, outside both UTSA and UTHSCSA, must be included.

Nomination is contingent upon the willingness of the designated person to serve on the Doctoral Dissertation Committee. The composition of the Committee should, in principle, provide a group of research scientists and engineers who constitute an important resource to the candidate and his/her dissertation research. Their functions are, with the Supervising Professor, to guide the candidate through the dissertation research and to certify to the COGS that the candidate has, in fact, carried out a meritorious research investigation of the caliber appropriate for a Ph.D. dissertation and, in their opinion, defended it satisfactorily. For the COGS to adequately evaluate the suitability of each member of the committee, a copy of the abstract from the student’s dissertation proposal and a letter from the Supervising Professor describing the contribution each proposed member will make to the committee must accompany the form(s) required by the Graduate School (see below). All students should allow at least 30-45 days for their request to be reviewed and approved by the COGS.

At UTHSCSA, upon selection of the Doctoral Dissertation Committee, the student should complete and submit to the COGS a Form 30 “Recommendation for Approval of Dissertation Research Proposal and Supervising Committee” (http://engineering.utsa.edu/bme/bme_program/pdfs/forms/student/form_30_1.pdf) which will be forwarded to the Graduate Dean's office for approval. At UTSA, the Supervising Professor will prepare and forward to the COGS a completed “Appointment of Doctoral Dissertation Committee” form (http://engineering.utsa.edu/bme/bme_program/pdfs/Appointment_Doctoral_Dissertation.pdf) for approval and forwarding to the Associate Dean of the College of Engineering and the Dean of the Graduate School for review and signature. If a proposed member of the Doctoral Dissertation Committee is not a member of the Graduate Faculty, application for membership should be requested. At UTSA, use form “Application for Graduate Faculty Special Membership” (http://engineering.utsa.edu/bme/bme_program/pdfs/Special_Membership.pdf); at UTHSCSA, the “Nomination to Membership in the Program Graduate Faculty” form 80 (http://engineering.utsa.edu/bme/bme_program/pdfs/forms/student/GSBS_FORM_80_Grad_Fac_Nom.pdf) should be completed and submitted to the COGS for approval. Additionally, at UTSA, a form “Memorandum to Graduate Program Committee (External Committee Member and Tentative Dissertation Title)” form (http://engineering.utsa.edu/bme/bme_program/pdfs/external_comm_member_memo_bme71707.pdf) and a “Dissertation Proposal Approval Form” (http://engineering.utsa.edu/bme/bme_program/pdfs/Dissert_Proposal_Approv.pdf) should be submitted to the COGS for approval and processing.

Approval of the Dissertation Proposal and Doctoral Dissertation Committee
The Graduate Faculty Council/Graduate Council and the Dean will review the recommendation of the COGS concerning the proposal and membership of the
Doctoral Dissertation Committee. After approval by the Dean of both the proposal and the Doctoral Dissertation Committee, the candidate may register for the Dissertation course (e.g.: ORTO 7099). Any subsequent change in the composition of the Doctoral Dissertation Committee must be approved by the COGS and approved by the Dean, who will then report the change at a regularly scheduled meeting of the Graduate Faculty Council/Graduate Council.

Supervision of the Dissertation Research

After formal approval of the Doctoral Dissertation Committee, the Supervising Professor shall convene the Doctoral Dissertation Committee at appropriate intervals to discuss with the candidate his/her research progress and projected future work. At least every six months afterward, the Doctoral Dissertation Committee shall meet with the candidate for presentation of progress reports (written and/or oral), so that the current status of the research may be evaluated and direction of future work planned. If the external Committee member is unable to attend these meetings, it is the responsibility of the candidate and the Supervising Professor to provide this member with progress reports for review and recommendations. It is essential that the Doctoral Dissertation Committee be fully informed of the research progress and be able to provide continued supervision throughout and that the COGS receive reports of the research progress from the Doctoral Dissertation Committee after each of its meetings with the candidate. The Doctoral Dissertation Committee and/or the COGS may approve or direct alterations in the research plan within the general context of the dissertation proposal. **Major changes in the candidate's research status (such as selection of a new Supervising Professor, new Doctoral Dissertation Committee members, or a new research question) must be reported and approved by the COGS, the Graduate Faculty Council/Graduate Council, and the Deans at both UTHSCSA and UTSA.**

Presentation and Publication of Research Prior to Defending the Dissertation

Prior to defending the dissertation, all doctoral students are required to present their research at least twice at either national or international meetings. In addition, students are also required to have either published one manuscript in the peer review literature or have a manuscript in press. Exceptions to this policy must be approved by the COGS prior to scheduling of the dissertation defense.

Submission of the Dissertation

After all members of the Doctoral Dissertation Committee agree that the research has progressed sufficiently for submission of the dissertation, a draft of the dissertation shall be submitted to the Supervising Professor and then to all other members of the Doctoral Dissertation Committee and the Deans at both UTHSCSA and UTSA for their review and recommendations for modification. It is the responsibility of the candidate to follow the guidelines for preparation of the dissertation provided by the Graduate School Dean's Office at either UTHSCSA [“Instructions for Preparation and Submission of Electronic Theses, Dissertations and Dissertation Abstracts” (http://gsbs.uthscsa.edu/files/resource/pdf/2011_General%20Instructions.pdf)] or UTSA [Thesis & Dissertation] (http://graduateschool.utsa.edu/current-students/category/thesis-dissertation/).
depending on the candidate’s primary Institution. If an alternative format appears to be preferable, the candidate must obtain approval for such format from the Doctoral Dissertation Committee and the COGS. The candidate also has the responsibility to ensure adequate time for review and modification of the dissertation in accordance with the schedule of deadlines provided each term by the Graduate School Dean's Office.

**Defense of the Dissertation (Final Oral Examination)**

When the Doctoral Dissertation Committee judges the dissertation to be suitable for defense, it shall submit a Request for Final Oral Examination Form (GSBS Form 40; [http://engineering.utsa.edu/bme/bme_program/pdfs/forms/student/form_40_1.pdf](http://engineering.utsa.edu/bme/bme_program/pdfs/forms/student/form_40_1.pdf)) through the COGS to the Dean and request scheduling of the Dissertation Defense (Final Oral Examination). At this writing, this is only required at UTHSCSA. Three copies of the Abstract and Vitae (stapled together) should accompany the Request for Final Oral Examination Form at the time it is submitted to the Graduate School Office.

In addition to what is required at UTHSCSA, all BME students are required to inform faculty and students at both campuses about the time and place for their dissertation defense (final oral exam). To accomplish this, the student must schedule the dissertation defense with his/her committee members. When a date has been determined, it is the student’s responsibility to contact Margaret Boullosa (Margaret.Boullosa@utsa.edu) at UTSA or Joanne Wright (wrightjp@uthscsa.edu) at UTHSCSA to schedule a room reservation (traditionally, students with a Supervising Professor at UTSA would reserve a room at UTSA and those at UTHSCSA would do similarly). This should be completed no later than 4 weeks prior to the date of the defense. It is also the student’s responsibility to obtain an electronic template for preparing a public announcement of the dissertation defense on the BME Program website ([http://engineering.utsa.edu/bme/bme_program/forms.html](http://engineering.utsa.edu/bme/bme_program/forms.html)). The completed dissertation defense announcement (containing the student’s name, title and abstract of the dissertation, and time and place where the defense exam will take place) should be forwarded to Joanne Wright (wrightjp@uthscsa.edu) for electronic distribution to all BME faculty and students. This electronic announcement must be distributed no later than 3 weeks before the date of the defense. Hard copies of the announcement must be prominently posted by the student on both campuses two weeks prior to the exam to allow sufficient time for individuals outside of the BME Program an opportunity to attend. Failure to advertise the time and place of the dissertation defense, according to this schedule, will result in having to reschedule the defense.

The Dissertation Defense will be conducted by the Doctoral Dissertation Committee with the Supervising Professor as Chair. Interested persons may attend the public defense and have the right to question the candidate. After the public defense, the Dissertation Defense will continue with an intensive oral examination by the Doctoral Dissertation Committee which is not customarily open to the public. The Committee members then vote on the candidate's success
or failure on the Dissertation Defense (Final Oral Examination); no more than one member of the Doctoral Dissertation Committee can dissent and the student have the dissertation approved. At the conclusion of the exam, the Doctoral Dissertation Committee for UTHSCSA students submits a Report on Final Oral Examination Form (GSBS Form 43 [http://engineering.utsa.edu/bme/bme_program/pdfs/forms/student/form_43_1.pdf]) to the COGS. At UTSA, the Committee completes and submits a “Certification of Completion of Dissertation Requirements for Doctoral Degree” form ([http://engineering.utsa.edu/bme/bme_program/pdfs/Completion_Dissert.pdf](http://engineering.utsa.edu/bme/bme_program/pdfs/Completion_Dissert.pdf)) to the COGS for forwarding to the Program Director, Associate Dean of the College of Engineering and the Dean of the Graduate School for approval. In the event of a failing performance by the candidate, the Doctoral Dissertation Committee shall also submit to the COGS a recommendation regarding remedial action; in such case, the COGS shall decide on the recommendation or other action to be taken. In the event of a successful performance by the candidate, the COGS shall vote on whether to approve the recommendation by the Doctoral Dissertation Committee for granting of the degree.

**Submission of Bound Dissertation to the BME Program**

All students are required to provide two bound copies of their dissertation to the BME Program office as a requirement for graduation.

**Recommendation for Granting of the Degree**

The candidate shall submit to the Graduate School Office the final typed copy of the dissertation (including the dissertation Approval Page signed by the Supervising Committee members) ready for duplication. When both the Report and the dissertation copy in final form have been received, the Graduate Faculty Council will consider the recommendation for granting of the degree. If the Council does not approve the recommendation, it will refer the matter to the Committee on Graduate Studies with a recommendation for remedial action. If the Council approves the recommendation, the Dean of the Graduate School of Biomedical Sciences (UTHSCSA)/Dean of the Graduate School (UTSA) will notify their respective Presidents that the candidate has fulfilled all requirements for the degree of Doctor of Philosophy. (This procedure is contingent upon the receipt of the final version of the thesis or dissertation.) Upon the candidate's certification by the President, the degree is conferred by the Board of Regents of The University of Texas System. (See "Registration for Dissertation;" "Registration for Final Term;" "Graduation."

**Recommended Chronology for Full Time Students to Complete the Degree Requirements in a Timely Manner**

The following sequence summarizes some of the landmarks of progress that should be followed as closely as possible.

**Year 1**

1. Meet with the Program Director and attend Ph.D. Program Orientation
2. Prepare and submit a preliminary Program of Study to the Program Director, which may contain any graduate level classes to be transferred, and send this to the COGS for preliminary approval
3. Complete requirements for unconditional admission, if applicable
4. Take courses based on Program of Study
   Recommended class schedule:
   Fall (10 hrs)
   Biomaterials
   Biology for Bioengineers
   Physics of Diagnostic Imaging
   Seminar

   Spring (10.5 hrs)
   Ethics
   Biomechanics
   Electives
   Electives
   Seminar

   Summer (7 hrs)
   Gross Human Anatomy
   Introduction to Clinics

Year 2
1. Complete remaining course work based on Program of Study
   Recommended class schedule:
   Fall (9 hrs)
   Engineering Analysis
   Experimental Design
   Electives
   Seminar
   Spring (10 hrs)
   Electives
   Electives
   Electives
   Seminar
   Summer (minimum of 3 hrs)
   Research hours
2. Take and pass the Level 1 portion of the written QE (December-January)
3. Select Supervising Professor for dissertation.
4. Form Doctoral Dissertation Committee
   (this committee will conduct the Level 2 written QE and the oral QE prior to formal approval by COGS and the Graduate School)
5. Take and pass the Level 2 portion of the written QE (within 30 days of receiving notice of passing Level 1)
6. Prepare dissertation proposal
7. Take and pass the oral QE
(within 6 months of receiving notice of passing Level 2; typically this occurs during May through August)

8. Retake Level 1 and/or 2 written qualifying exam, if necessary.
   Retake oral QE, if necessary (late June to July).

9. Be recommended for Admission to Candidacy by the COGS
   (July to August)

Years 3-4 (and 5, if necessary)

1. Have the Doctoral Dissertation Committee formally approved by the COGS and Graduate School (late in year 2 or early year 3)
2. Conduct research
3. Prepare and present a seminar based on the dissertation proposal, including supporting data collected since becoming a candidate.
4. Present research findings at two meetings and publish one manuscript in the peer review literature.
5. Prepare dissertation
6. Complete Program of Study and submit for final approval
7. Take and pass the Dissertation Defense (Final Oral Exam)

All students are expected to make reasonable progress toward the degree. Once a student has been admitted to candidacy for the Ph.D., the COGS will convene annually to review progress made by the student. If the student has not completed the dissertation within 3 years of admission to candidacy, then the COGS may decide if any action is needed and submit its recommendation to the Program Director, who will make a decision in consultation with the Graduate Faculty Council of the GSBS (UTHSCSA) and the Graduate Council (UTSA).