

Date Guidelines Established: January 21, 2010

Bioengineering Department  
Guidance Document for the Procedures to be Followed for the  
Scheduling and Administration of the BioE Qualifying Examination

Overview of the Qualifying Examination

The purpose of the qualifying examination is threefold: To have the doctoral candidate demonstrate their (1) knowledge of the literature that is pertinent to their selected doctoral research area by writing a comprehensive critical review of the pertinent literature, (2) ability to prepare and orally present a formal seminar on the topic of their critical literature review, and (3) comprehension of the fundamental and applied concepts of the field of bioengineering and concepts that are specifically relevant to their selected area of research.

As a general overview, the examination will consist of the preparation of a written report following the *Guidance Document for the Preparation of the Written Literature Review of the BioE Qualifying Exam* (which can be downloaded from the graduate student link of the department's website), the oral presentation of this report to the qualifying examination panel, and a period of time of open questioning of the student by the qualifying examination panel. Following the period of questioning, the panel will decide on the outcome of the examination. The specific procedures that are to be followed to administer the qualifying examination are presented below.

Guidelines for the Scheduling and Administration of the Qualifying Examination

- (1) Per the Department of Bioengineering Graduate Student Handbook, the qualifying examination should be taken within 18 months of enrolling in the doctoral program. Failure to meet this schedule may result in the suspension of the student's assistantship support.
- (2) The student will prepare their qualifying examination report following the report guidelines and under the direction of their research advisor. The specific qualifying examination guidelines are provided on the department website under: Graduate Program/Current Graduate Students/Qualifying Examination Guidelines.
- (3) The student and their advisor will select one member from the student's research committee to serve on the student's qualifying examination panel along with the student's advisor and will identify a suitable range of dates that allow scheduling of a 2.5 hour time slot when they will each be available for the examination. The date selected should not be any sooner than 4 weeks from the date that the student informs the Qualifying Examination Committee (QEC) chair (Dr. Nagatomi, [jnagato@clemson.edu](mailto:jnagato@clemson.edu)) of their wish to schedule their examination. Students at Clemson should contact Ms. Tammy Rothell ([tammy@clemson.edu](mailto:tammy@clemson.edu)) to reserve a suitable room for the examination (or Ms. Leigh Humphries ([lcartee@clemson.edu](mailto:lcartee@clemson.edu)) for Rhodes rooms 302 and 402). If panel members are located off campus, the selected room must have videoconferencing capabilities with the selected room at the location of the off-campus panel member. The off-campus panel member should identify a suitable room for this purpose and coordinate with the student and Ms. Maria Martin ([mariam@clemson.edu](mailto:mariam@clemson.edu)) to establish videoconferencing capabilities between the two rooms before the examination is held.
- (4) The student shall email the QEC chair that they would like to schedule their qualifying examination and provide the QEC chair with the desired dates and time, for the examination. The student should include an

attachment to this email consisting of a one-page abstract of their qualifying report. The student should also provide the QEC chair with the name of their advisor, the names of the other faculty members who serve on the student's research committee, and which committee member in addition to the advisor will serve on the student's qualifying examination panel.

(5) The QEC chair shall then identify two faculty members who are not on the student's research committee to serve as the two other members of the student's qualifying examination panel, with one of these faculty members designated to serve as the moderator of the qualifying examination panel. These faculty members should be identified at least two weeks prior to the scheduled qualifying examination date.

(6) The QEC chair will inform the student by email (with cc to the student's advisor) who the other two members of their qualifying examination panel will be and will inform the graduate student services coordinator (Ms. Maria Martin, [mariam@clermson.edu](mailto:mariam@clermson.edu)) by email who the moderator of the examination will be.

(7) The student should email each panel member an electronic copy of their qualifying exam report no later than 10 days prior to the scheduling of their exam.

(8) The graduate student services coordinator (GSSC) will send the examination moderator a copy of the student's GS-2 form, the one-page "Results of Ph.D. Qualifying Examination in Bioengineering and Proposal Defense" form, and the two-page "Bioengineering Department Qualifying Examination Assessment Sheet" form. The moderator will then send the GS-2 form to each member of the examination panel prior to the examination.

(9) The student should email the members of the examination panel a few days prior to the examination to remind them of the examination and to confirm their availability to administer the examination.

(10) At the beginning of the examination, the examination moderator will meet with the panel members for a few minutes without the student being present to coordinate with the panel regarding the general topic areas that they plan on asking the student to address in the examination and to discuss the general manner in which the examination will be conducted.

(11) To begin the examination, the moderator will introduce the student and go over the general procedures of the examination. The examination will consist of the student first presenting an oral slide presentation (which should be about 30 minutes long) on the material covered in their qualifying examination report. This will be followed by a period of questioning by the panel members on subjects relevant to the student's written report, oral presentation, **and courses** listed on the student's GS-2 form. The qualifying examination is intended to test the student's preparation and qualifications to conduct doctoral-level research and is distinctly different from the student's research proposal defense. The line of questioning in the qualifying exam should therefore be focused to test the student's knowledge of the pertinent literature of their research area and the subject matter covered in the courses that are listed on the student's GS-2 form. Questions related to the student's actual research project should be reserved for their research proposal defense. Once all panel members have agreed that the questioning period is completed, the student will be dismissed to wait outside the room while the panel deliberates on the outcome of the examination and fills out the appropriate forms (Results of the Qualifying Examination Form and the Assessment Form). The panel can decide that the student passes, conditionally passes, or fails the examination. These designations can be separately applied to each of the three different components of the examination: the written report, the oral presentation, and the responses to questions. Once the panel has finished filling out the forms, the student will be brought back into the room and informed of the outcome of the examination.

(12) After the examination is complete, the moderator of the examination panel will give the filled out forms to the GSSC, who will put the forms in the student's file.

(13) If a student fails any part of the examination, the student will be provided a second and final chance to retake and pass the part of the examination that they failed. The second examination should be taken within three months of the first examination date. The second examination will be given by the same examination panel that administered the student's first examination. If a panel member is not available to serve for the second examination, then the QEC chair will work with the student's advisor to identify an appropriate replacement. It is up to the student to coordinate with the panel members to schedule the second examination date, time, and place. Once the examination has been scheduled, the student will email the QEC chair and the GSSC with the date, time, and place and the name of the moderator for the second examination. The GSSC will email the moderator the new set of forms prior to the examination date.

(14) Failure to pass all components of the qualifying examination after the second examination attempt will provide grounds for the student to be dismissed from the doctoral program at the end of the academic term during which the examination was administered.

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Bulleted Summary of Guidelines for Qualifying Examination

- Student selects member of research committee to serve on panel and sets exam date, time, and place.
- Student informs the QEC chair of their desire to take the qualifier exam along with the targeted range of dates and time. Student also sends the QEC chair an abstract and the names of the research advisor, research committee members, and research committee member who will serve on the qualifying exam panel.
- QEC chair will select two faculty members not on the student's research committee to serve on the exam panel; one of which will be designated as the panel moderator.
- QEC chair will email the student the selected members of the student's exam panel.
- Student will reserve room(s) for the exam (and videoconference between CU and MUSC campuses)
- Student will send qualifying exam report to each committee member at least 10 days prior to the exam day.
- QEC chair will email the GSSC the name of the moderator and the exam date.
- GSSC will email the moderator the student's GS-2 form and provide the moderator with the Results and the Assessment forms for the exam.
- Exam moderator will send the student's GS-2 forms to the exam panel members.
- Exam panel will meet for a few minutes at the beginning of the exam without the student being present to coordinate for the exam.
- The exam will be administered, the panel will decide on the outcome, and forms will be filled out and turned in to the GSSC.
- If a second exam is to be administered, it will be up to the student to schedule it with the panel members. The second exam should be taken within three months of the first exam.