Department of Civil & Environmental Engineering

Graduate Student Handbook

PhD

Brigham Young University

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Introduction

This student handbook contains a summary of policies and procedures that PhD graduate students in the Department of Civil & Environmental Engineering are expected to know and follow. This handbook explains the procedures that are to be followed in the course of obtaining a degree but does not cover every conceivable situation. Students are invited to counsel with their Graduate Committee Chair, the Graduate Advisor, or the Graduate Coordinator about special circumstances

Minimum Registration and Residency Requirements

- International students must register for and complete at least 9 hours each Fall and Winter semester while at BYU.
- Students must register for and complete at least 6 hours per academic year to be eligible to register the following year and to maintain an active graduate student status.
- Students should be registered for a minimum of 2 hours whenever on campus using university facilities and receiving faculty advisement.
- Students must pay for a minimum of 2 hours of credit in the semester in which graduation takes place or the dissertation is defended.
- Students must register for at least two consecutive 6-hour semesters on campus.
- The doctoral degree must be completed within 8 years of admission to the doctoral program at BYU.
- <u>Credit hours</u>: Candidates with a master's degree: minimum 54 approved semester hours. These hours include at least 36 hours graduate-level courses (up to 18 hours of 500+ level courses can be transferred from the master's degree if approved by the graduate committee) and a minimum of 18 dissertation hours.
 Candidates without a master's degree: minimum of 54 approved semester hours. These hours include at least 36 hours graduate-level courses and a minimum of 18 dissertation hours.
- **Program of study:** the program of study must be submitted no later than the third week of the second year.
- **Evaluations:** evaluation of the student's graduate program progress by his/her faculty advisor is required at least twice each academic year.
- **Residency requirements:** residency is required for the major part of the work. This work must be completed under the specific direction of a graduate faculty member while the student is in residence at BYU. "In residence" is defined as (1) being registered for credit as a graduate student and (2) living and conducting research in the general vicinity of the university, where the student has ready access to research facilities and consultation with the faculty. Further, all work must be completely open for university review and publication. Any exceptions to the above must be supported by written approval from the department and college and obtained in advance of any work being performed.
- **Prospectus**: students must submit and successfully orally defend a written prospectus on their proposed dissertation research topic at least one year before completion of the degree.
- Dissertation
- Oral Defense.

Program Requirements

Graduate Advisor, Committee Members

Doctoral programs require a graduate advisor from their major department and 3 or more other members on their committee consisting of BYU professors with BYU graduate faculty status. During the first semester, the student works with their graduate advisor to select the committee using the GradProg system. From myBYU go to MyMap and then to Progress Report. After selecting the Committee box the student then selects to Edit the members of their committee using the dropdown choices. Once submitted the faculty will receive an invitation by email that they can accept by clicking a link in the email.

Program of Study

Doctoral students should receive approval and submit their Program of Study during the first year, with completion no later than the third week of the beginning of the second year of study. The Program of Study is a carefully considered plan which identifies the student's major, lists all courses required, and designates the graduate committee. Each Program of Study must meet the minimum university degree requirements. Necessary changes in a student's program or committee can be made if authorized by the student's committee.

54 hours of Coursework:

- 18 Hours of graduate course work (may not include any 100-499 level courses)
- 18 Hours doctoral dissertation (CEEn 799R)
- 18 Hours of graduate course work transferred from the master's degree (500+level).

GradProg is an online graduation tracking website for graduate students. The Program of Study can be done even while waiting for the committee acceptance and approval. Once in the Program of Study box in GradProg, select the Program Requirements dropdown where you can choose to Add New Course and Remove Course. Once you have planned the full number of courses needed then you can submit for Committee Member Approval. Work with your Faculty Advisor when unsure which courses you will need. Once your committee has approved then the graduate program manager will be notified to do a final check and give the final approval.

PhD Graduate Degree without a Masters

Fifty-four (54) hours of course work A 3.4 cumulative GPA must be maintained. These hours include:

- 36 hours of graduate course work (may not include any 100-499 level courses)
- 18 hours of doctoral dissertation (CEEn 799R) These hours may **not** include:
- Any courses with D or E grades
- Any skill requirement courses (as required by committee). These additional skills courses may include advanced math, statistics, and science (300 and above). All science courses must be outside of the Civil & Environmental Engineering Department.
- Any course credit applied to a BS degree

• More than 7 hours of transfer or non-degree courses from another university. (Transfer and non-degree credit must be from graduate level courses and have a grade of B or better.) Approval from Graduate Coordinator is required.

PhD without CEEn Bachelors go to this link for more criteria

Receive Biannual Evaluations

The progress of each graduate student will be evaluated twice each year, in January and May. The student's graduate committee chair rates each student as making satisfactory, marginal, or unsatisfactory progress. The committee chair may consult with other members of the graduate committee when determining this rating. The committee chair reports the student's progress to the Graduate Program manager. Students whose progress is rated as marginal or unsatisfactory will receive notification to meet with their graduate advisor and sign the evaluation. Graduate students can see their academic progress by going to the AIM-MyMap: Academic Planning. Click on the Progress Report tab and it will take you to GradProg where you can find your Graduate Progress Report on the left hand column.

The evaluation given to a student will include:

- Specific tasks the student must complete in order to maintain or regain a satisfactory rating
- Clear deadlines established for each of the specified tasks
- A recommendation of faculty member(s) they can contact for more information or support

Marginal progress may include the following:

- Failure to submit a Program of Study and establish a graduate committee by the end of first semester
- Failure to submit a prospectus by the end of second semester

• Poor performance in research or registering for thesis hours when little or no work has been performed • Minimal contact with the committee chair

Unsatisfactory progress may include the following:

- Failure to submit a Program of Study since prior evaluation
- Failure to submit a prospectus since prior evaluation
- Failure to resolve any problems or fulfill any requirements indicated in a previous marginal or unsatisfactory review
- Minimal or no contact with the committee chair
- Poor performance in research or registering for thesis hours when little or no work has been performed Program of Study GPA below 3.0 or Program of Study course grade below 2.0
- Unacceptable ethical or professional behavior

If a student receives a marginal or unsatisfactory rating and has not improved his or her performance in accordance with the actions outlined on a previous evaluation, by the time of the next evaluation, the student should meet with his committee chair to determine possible recourse, if any, to termination. The biannual evaluation is used by the department to satisfy criteria for continuing funding. It is also used by the BYU Financial Aid Department to determine eligibility for financial aid.

A student receiving two consecutive marginal and/or unsatisfactory student evaluation ratings will be terminated.

Policy for Dismissal and Grievances

A student's graduate status may be terminated for the following reasons:

• Failure to satisfactorily complete the conditions of acceptance

- Failure to fulfill the university's minimum registration requirement
- A request to withdraw
- Consecutive and unsatisfactory ratings or two less than satisfactory ratings are received in succession.
- Failure to make what the department or the university deems to be satisfactory progress towards a graduate degree
- Failure on the final oral examination (defense of thesis)
- Violation of the university's standards of conduct or Honor Code
- Failure to comply with the time limit (five years for a master's degree)

A student dismissed or facing dismissal may request review of termination or impending termination. Such requests should be submitted in writing to the department chair. A student who wishes further consideration may request review by the college dean. Ultimately, a final request for review may be made to the Dean of Graduate Studies who may appoint a committee to review the matter. All requests for review of termination must be initiated within one year of the semester in which the termination takes place.

Dissertation Process

By their excellence and uniqueness, this research and writing experience impressively demonstrates the achievements, knowledge, and skills of the students at the time the graduate degree is completed. The final product should be well written and should lead directly to a publishable piece of work. If using a published article as part of your dissertation make sure that you reserved the rights to publish as a dissertation.

Prospectus: students must submit and successfully defend a written prospectus on their proposed dissertation research topic at least one year before completion of the degree .

Defense

When the student is ready for the committee to review the thesis for the defense, the student goes into the GRADPROG system, to the READY FOR DEFENSE tile. Put in the THESIS TITLE and either upload a pdf copy of the thesis or select USING EXTERNAL TOOLS. Send a request for the committee to approve the thesis as ready for defense. Committee members certify ready for defense on GradProg to show that the student and the thesis are ready for the oral exam; therefore, it is essential that students submit their thesis to the committee several days before trying to obtain approval on GradProg.

Scheduling the defense is done by establishing the date, and time of the defense with all members of the committee. Then let the graduate secretary know the details of the date, time and place so she can schedule it on GradProg. If a conference room is needed, she will reserve it for you. This requires advance planning.

Members of the Graduate Committee will serve as the examining committee. Spouses, parents, and friends are welcome to attend the oral examination; small children should not attend. Final examinations may not be held during the interim periods between semesters or terms. All members of the BYU academic community are invited to attend the final oral examination, but only members of the student's graduate committee may question the candidate and vote on his or her performance.

The examination format is as follows:

- The student's research is presented.
- The general audience is excused.
- Questions are asked by committee members.
- The decision (pass, pass with qualifications, recess or fail) is announced.

The presentation should last approximately 30 minutes. Consideration should be given to the following expectations:

1. A well thought-out, well-organized, cogent summary of the student's work including:

- An explanation of how the current work relates to the student's discipline
- The rationale behind the project in the context of available literature
- If the student has been part of a research team or lab, an explanation of the student's intellectual contribution to the project and a description of how the student's work fits into the broader research conducted in this lab
- The questions or issues the current work was designed to address
- The way the design, method, and/or approach addressed those questions
- The analysis of data gathered
- The results, outcomes, final products, or performance
- 2. An interpretation of results, findings, contributions, insights, and conclusions and their significance. What does this work add to existing knowledge?
- 3. A discussion of implications the work suggests for future research or creative endeavor.
- 4. A discussion of any applied or clinical implications suggested by the work.
- 5. Thoughtful, well-founded responses to all questions the committee members might ask.

It is likely that the graduate committee will request revisions of the Dissertation. Students should discuss the revisions with committee members and do their best to comply with their requests. After the student is finished making revisions, the committee chair and committee members will need to mark approved on GradProg indicating that all qualifications requested by the committee have been approved.

Note: Students should allow at least a full week following their defense to finish all remaining requirements before leaving campus.

Electronic Thesis or Dissertations (ETDs)

Once the defense is finished and the Faculty advisor and committee have approved the finished dissertation the next step is to submit the dissertation electronically. Electronic theses and dissertations (ETDs) are electronic documents that represent the culminating research of a graduate student. ETDs require no library shelf space and are available to any interested persons through Internet access. ETDs enable the university to fulfill its responsibility of recording and archiving theses and dissertations for a wide audience. All graduate students must submit their thesis or dissertation electronically. Students should refer to the ETD website (<u>http://etd.lib.byu.edu</u>/) for detailed information on the electronic submission standards.

ETD Creation Students submit their theses or dissertations as a single PDF (portable document format) file. Typically, the PDF files are generated using Adobe Acrobat software (not Reader), which retains all formatting information and allows the addition of multimedia objects. Documents prepared with many common software programs and document preparation systems, Microsoft Word, WordPerfect, TeX, LaTeX, and other applications that can output to a print file (postscript) can be easily converted to PDF files.

BYU Graduate Studies requires that a title page, abstract and table of contents be included in each thesis and dissertation. The format of the title page must comply with University style standards as communicated <u>here</u>. Formatting of the abstract and table of contents is at the discretion of the college style standards. If needed, default formatting guidelines for each of these pages, the thesis body, and sample documents are available <u>here</u>. To ensure that each thesis and dissertation is legible and accessible in printed and digital format, BYU Graduate Studies requires:

- US Letter sized pages (BYU Print and Mail suggests margins of at least ³/₄" to ensure quality of printed and bound documents)
- all fonts embedded in the PDF
- bookmarks for each chapter and heading that is present in the table of contents section in the PDF
- For more information on minimum standards for submitting a dissertation go here

Apply for graduation

Application for graduation can be accessed online through MyBYU > School > Apply for Graduation.

In order to apply students must have:

- a) Completed all course work or are currently taking remaining classes
- b) submitted a current ecclesiastical endorsement
- c) received verbal permission from the committee chair.

Program Timeline

- o Choose a faculty advisor during the application process
- Choose three committee members besides your graduate advisor no later than the third week of your second year
- o Submit program of study no later than the third week of your second year
- Complete all provisions during first year (if admitted provisionally)
- o Meet with graduate advisor for required evaluation January and September
- Submit prospectus at least one year before dissertation defense
- Complete all courses on program of study prior to applying for graduation
- Apply for graduation by university deadline
- Submit best draft of thesis to faculty advisor at least one month prior to defense
- Submit defense draft to all committee members at least 2 weeks prior to scheduling defense
- Schedule oral defense when all of the committee has approved ready for defense in GradProg
- o Submit a copy of thesis to the graduate program manager for first review prior to thesis defense
- Thesis defense done and passed by all committee members with any revisions made to thesis
- Make two copies of thesis, one in pdf without blank pages for online view (ETD), one with blank pages to be bound in professional book form
- Email updated thesis in ETD for formatting review to the graduate program manager
- o Submit ETD online in GradProg for approval from graduate studies, department and college
- o Email bound book copy of thesis with blank pages to graduate program manager for review
- \circ $\;$ Submit pdf bound copy of thesis to Print and Services for required bound copy for your faculty advisor $\;$
- Submit required department Exit Survey and Survey of Earned Doctorates (GradProg, Resources, Forms)

Financial Aid Options

Department Scholarships

Students intending to complete a Masters in Civil Engineering at BYU are eligible to apply for departmental scholarships each year. Applications are available in January from this website: <u>https://ceen.byu.edu/scholarships</u>. The submission deadline is in March. Check with the CEEn office for the specific deadline date. These awards are typically made in June for Fall and Winter scholarships. A few scholarships are reserved for PhD students starting winter semester. The student is responsible for applying prior to the deadline.

Selection is based on:

- Scholastic merit (particularly on the applicant's program GPA and GRE scores).
- Need
- Contributions to the University through extracurricular activities. These scholarships may be received in addition to any assistantship or privately endowed awards listed below unless the total financial aid package exceeds the scholarship limitations stipulated by the University.
- International students are not eligible for department scholarships during the first year in the graduate program.

Student Loans

Federal Loans are available to graduate students who qualify. Only degree-seeking students who are making satisfactory academic progress will be considered for loan approval. International students are not eligible for Federal Loans. Information can be found under the Financial Aid section of the university website. Look under the eligibility section to make sure it is available for a graduate student. https://enrollment.byu.edu/financialaid/types-of-aid

Research Assistantships

Several of the faculty have funds from both off-campus and on-campus sources to support students as research assistants. These awards support students at the normal current pay rate for research work up to half-time (20 hours/week). This research work normally applies towards completion of the student's thesis or dissertation so it follows the same credit requirements as on-campus employment. Research assistantships are typically granted by faculty members in one of the three ways:

- The faculty member puts out an announcement in the department office when funds for such awards become available, and applications from students are then accepted.
- A student with an interest in a particular faculty member's area of research makes contact with that faculty member who can then give that student primary consideration as funds become available.
- The faculty member reviews a student's application for admission to graduate school and makes an award to the promising student at the time the student is admitted.

Teaching Assistantships

All graduate students are eligible for teaching assistantships with the exception of those who already have received halftime research assistantship. These awards support graduate students for work associated with the grading and teaching of courses. An International student finished with coursework can petition for less credit hours and still be able to work as a teaching assistant. Applications are available in the department office.

On-Campus Employment

Student campus jobs other than assistantships and internships are listed at Student Employment Services. Graduate students wishing to seek on-campus employment must be registered for a minimum of two credit hours. Full-time graduate students are not permitted to work more than 20 hours at on-campus employment outside of their academic departments or 28 hours within their department. International students must be registered for at least 9 credit hours or have full-time status in order to work on campus. Spring and Summer term employment has different hour limits.