

Washington State University
Department of Civil and Environmental Engineering

Graduate Student Handbook
Revised November 2009

Welcome to the Civil and Environmental Engineering Department at Washington State University. This department places a high priority on graduate education and offers a wide array of research topics.

Our graduate students come from many states and many countries around the world. You are encouraged to communicate with your fellow graduate students in order to benefit from their experiences. Graduate students are a vital component of our department. You, as a graduate student, will become junior colleagues who gain experience in both the classroom and laboratory, increase the department's research capability, and most importantly, bring new dimensions to its work. The real strength of our graduate program is the close interaction between graduate students and faculty members. Our faculty is dedicated to the students' professional development and lifetime friendships have been built that span social and national boundaries. We are glad you are joining our team.

This handbook will provide you with some essential information to help you get your graduate student career at WSU off to a successful start. Refer to this handbook for reference throughout your academic studies in the Department of Civil and Environmental Engineering (CEE). It is noted, however, that this handbook is not all inclusive and students must refer to other publications from the Office of the Graduate School and Washington State University for additional information. Other publications and web sites containing helpful information include:

Time Schedule (available online at <http://www.schedules.wsu.edu/Schedules/Apps/HomePage.ASP>) - Includes detailed course listings, information on registration procedures, payment of fees, and the university's academic calendar.

Civil & Environmental Engineering Departmental information - Up-to-date departmental information can be found at <http://www.ce.wsu.edu/>.

WSU University Directory (published yearly in early fall and available for sale at the "Bookie") - Address and telephone listings for all WSU faculty and staff. The WSU Electronic Phonebook may be found at the following site: <http://www.wsu.edu/lphonebook/>.

Daily Evergreen - Available daily at news stands throughout campus, in the departmental main office (Sloan 101) or at <http://www.dailyevergreen.com>.

Pullman Transit - For bus schedules, fares, and routes, see <http://www.pullmantransit.com>.

What You Need To Know To Get Started

WHO TO ASK FOR HELP?

See the CEE Graduate Coordinator in your area if you have questions.

Group Coordinator	Area	Room	Telephone	Email address
Tom Jobson	Environmental	Dana 302D	335-2692	tjobson@wsu.edu
Balasingam Muhunthan	Geo/Trans	Sloan 30	335-3921	muhuntha@wsu.edu
David Yonge	Hydraulics/Water	Sloan 123	335-2147	yonge@wsu.edu
Pizhong Qiao	Structures	Sloan 121	335-7849	qiao@wsu.edu

CEE SUPPORT STAFF & BRIEF DESCRIPTION OF DUTIES:

Gene Allwine (allwineg@wsu.edu) – Project Scientist, Dana 302B, Research Facility Coordinator. Participates in the design and development of research methodologies for a broad range of complex laboratory and field research studies. Contributes to all aspects of the experimental work

Maureen Clausen (mclausen@wsu.edu) - Secretary Senior, Sloan Hall 101 - the CEE Main Office. Graduate admissions, member of Graduate Studies Committee, general information, FAX machine operation, mail distribution, backup for shipping, travel authorizations and travel expense vouchers,.

Scott Economu (economu@wsu.edu) – Research Technician III – Lab Manager for Center for Environmental, Sediment and Aquatic Research – Dana 104A - Maintain and supervise use of CESAR equipment, oversee safety of lab, train students and faculty in proper lab procedures, maintenance and disposal of chemicals.

Lola Gillespie (gillespl@wsu.edu) - Fiscal Specialist, Sloan 105 - fiscal paperwork related to departmental budgets and back up for travel related issues and for Cyndi.

Susan Lewis (smlewis@wsu.edu) - TRAC Coordinator, Sloan Hall 106 - Coordinator for Washington State Transportation Center, TRAC website, proposal submission, budget preparation and approval

Glenda Rogers (gjrogers@wsu.edu) - Secretary Senior, Sloan Hall 101 - the CEE Main Office. Key coordinator; Federal Express, UPS shipping; website updates; thesis and telephone records, Faculty/Staff and Graduate photo boards, ordering of supplies.

Vicki Ruddick (vruddick@wsu.edu) - Principal Assistant, Sloan 102 - (inner office from main office) Secretary to the chairman of the department; assigns office space, processes personnel paperwork appointing you to assistantship and assists enrolled graduate students with programs, courses, etc.

Vacant Position - Computer System Administrator, Sloan 132 - Network, System and software installation, Maintenance and repairs; Safety concerns; Chemical inventory

Brooke Whiting (bwhiting@wsu.edu) – Academic Coordinator, Sloan 103 – works primarily with undergraduate students providing information regarding pre-requisites to courses, course scheduling questions, scholarship forms, etc.

Cyndi Whitmore (whitmore@wsu.edu) - Fiscal Specialist, Sloan 107 - fiscal paperwork related to research projects, budgets and travel.

CHECKING IN - ASSIGNMENT OF OFFICE SPACE, KEYS AND MAILBOXES:

Vicki, in Sloan 102, coordinates the assignment of office space for graduate students. She does the personnel paperwork when you are receiving financial support through department managed funds.

Glenda, in Sloan 101, issues the keys and takes your picture for the graduate student picture board. Depending upon which faculty you work with, you may have additional keys assigned to you as you progress along your course of study.

Maureen, in Sloan 101, is the individual you may have contacted during the graduate application process; she will prepare a mailbox with your name on it in Sloan 104. This is where any incoming, campus mail and announcements will be placed so you must make a habit of checking it on a regular basis.

GENERAL INFORMATION:

Mailing (work-related only please) Outgoing personal mail is not to be placed in the department's box but items related to academic or research may be sent/received using the following address. If you need to send correspondence relating to your research, please see Maureen for assistance.

(Name)
Washington State University
Civil & Environmental Engineering Department
405 Spokane Street, Sloan Hall Rm. 101
PO Box 642910
Pullman, WA 99164-2910

Photocopy Accounts and Telephone Calls - Graduate students with research assistantships will obtain authorization codes from the faculty project leader in order to make project/research related copies and telephone calls. Students who are funded as teaching assistants will not need authorization codes for copying but will bring the material into the main office and be shown how to request course-related copying.

Computer Accounts – (Vacant Position at present) located in Sloan 132, will give you access to the department’s computer labs. Computers are available in Sloan 141 which are designated for graduate student use. You can create your own computer account at... <http://cee-nt.ce.wsu.edu/>

Purchase Order - Fiscal paperwork related to research projects are prepared by Cyndi Whitmore in Sloan 107. Cyndi’s hours are posted but there are blank request forms for orders, etc. outside her door. The other fiscal specialist is Lola Gillespie, located in Sloan 105. While Lola concentrates on state funds paperwork, she is available for emergency purchases and paperwork when Cyndi is away for a period of time.

Travel Authorizations - You must complete paperwork before you make any travel plans and you must follow up with reimbursement worksheets when the travel is completed.

Use of State Property - It is against state law in Washington to use any state-owned property for personal use.

Payment of Tuition and Fees - Tuition is paid by the university for students on teaching and research assistantships. Students not on an assistantship must pay their own tuition. All students must pay fees such as health and parking permit fees.

Federal Express - Only work related items can be sent FedEx from this office, no personal items please. Federal Express envelopes and packages are sent out through the departmental office. Glenda will process FedEx shipping requests but you must provide the project number to be charged, name, address (PO Box is not accepted by FedEx) and telephone number of recipient and contents of the parcel being shipped. In the event that Glenda is out, Maureen can process the shipment(s) for you. Federal Express next day shipments must be in Sloan 101 before 1:45 p.m. (preferably earlier.) The FedEx cut off time for next day shipment is 2:00 p.m.

FAX machine - a university authorization code is needed only to send materials long distance using the fax machine. The fax machine can be used to receive academic or research related material - please ensure that your name is clearly marked on the fax and check your mailbox or with the front office to pick it up.

Vacations and Holidays - Students on an RA or TA should consult their faculty advisor about scheduling vacation time.

Parking on Campus - Parking permits may be purchased at WSU Parking Services online at <http://www.parking.wsu.edu/> or in person at the Parking Services office located on the corner of Colorado and D Street. Call (509) 335-PARK (7275) for more information.

Review of Graduate Students

The Department reviews **all** graduate students during the spring semester. A cover memo and the review form will be distributed to all graduate students in early spring. This review must be completed by April 1st and written comments will be provided to the student by the Graduate Coordinator. This is a university requirement and forms the basis for possible dismissal if

performance is inadequate or for continuing pursuit of the degree if satisfactory performance is demonstrated.

Seminars

All MS and PhD graduate students are required to complete CE 580 Seminar (graded) twice. All graduate students must register for one credit of CE 600 (pass/fail) in each semester when they are in residence but not enrolled in CE 580. Students should register for the Section Number appropriate to the chosen emphasis area: Environmental/Hydraulic – Section 1; Structural – Section 2; and Geo/Trans – Section 3.

MASTER'S DEGREE

Program of Study - Master's Degree

Students may be accepted into the graduate program with undergraduate degrees in other than Civil Engineering (e.g., related areas such as mechanical engineering, materials science, physics, etc.). These students, however, may need to complete additional courses to cover deficiencies. Courses taken to satisfy deficiencies cannot be included in the program of study. Each student, in consultation with his/her graduate committee, will develop a plan of study. This plan outlines what courses will be required for completion of the degree. To develop a plan of study, students may choose from a variety of graduate and selected undergraduate courses offered in the area of emphasis. In addition, courses may be selected from a number of related courses in other programs in the Department of Civil and Environmental Engineering, as well as in other departments of the University. The plan of study form needs to be filed no later than end of the second semester.

Each program may have its own required core courses (a list of these courses may be obtained from your faculty mentor).

How to Select a Major Professor?

At the time of admission, a faculty mentor is identified for each student and you should meet with that individual for assistance in registration. With consultation, the student and faculty mentor and possible research supervisors come to a decision as to whom the student will have as the research supervisor/committee chair. Once the research supervisor has been identified, the scope of the research problem will be outlined, and a program will be filed with the Graduate School. Forms for this purpose are available online at <http://www.gradsch.wsu.edu/>.

Committee Selection

Students will select the other advisory committee members in consultation with their major professor. Then the students should contact each prospective committee member, have an interview with him/her and ask him/her to be a member of their committee. The student should review the proposed degree plan with the prospective member. The committee member's signature on the approved degree plan indicates his/her willingness to participate in guiding and

directing the student’s entire academic program. Individual committee members may be replaced by completing the Change of Committee form.

It is important that the student keep the committee members informed of the progress of the research. Even though the research supervisor is primarily responsible for research supervision, other members of the committee should be consulted on a regular basis.

Committee Responsibilities

The student’s advisory committee has the responsibility for assessing the appropriateness of the proposed degree program, the research proposal, the thesis and the final examination. In addition, the committee is expected to provide periodic advice and assistance to the graduate student.

Course Requirements for the Degree

Specific courses to be included on a student’s degree plan are determined as a joint effort between the student, his/her major professor and the other members of the advisory committee to meet the particular needs of the student. The student’s Advisory Committee and the CEE department chair must approve all degree plans before the plan is submitted to the Graduate School for approval.

	Thesis Option (credits)	Project Option (credits)	Courses Option (credits)
Graded graduate coursework	21	24	27
Graded seminar	2	2	2
CE 700 (thesis)	7	0	0
CE 702 (project)	0	2	0
CE 702 (exam)	0	2	2
Total credits	30	30	31

Thesis Option

General regulations regarding the preparation of a thesis are set by the Graduate School and are listed in the Policies and Procedures of the [Graduate School](#). The thesis format will follow requirements for publications in an appropriate technical journal as recommended by the committee. Usually the student and advisor will organize the research material into a paper publishable in a refereed journal concurrently with preparation of the thesis. Typing, copying and other associated costs for the preparation of the thesis will be borne by the student.

Non-thesis Option with Project

For this option, a project report instead of a thesis will be required. The format deadlines for submission and the number of copies of the project report will be the same as those for a thesis.

Final Examination and Seminar

All students are required to present a seminar on their dissertation to the faculty and graduate students during the final semester of their program. For both the thesis and non-thesis options, the final oral examination will consist of questions related to the student's research as well as coursework.

Students must submit the final copy of the thesis to the Graduate School in digital format. The Graduate School will provide guidelines for the proper procedure. The candidate for degree will continue to submit one paper copy of the title page, one paper copies of the abstract, and one original signature page--on 100% bond. Signatures should be in black ink.

In Addition:

Thesis copy requirements: Copies must be provided to the department, the committee chair and any committee member requesting it. For the department copy, submit an unbound signed copy and \$20.00 cash. Do not have it bound yourself. Additional thesis can be bound at the same time for personal use by submitting an unbound copy and \$20.00 cash. If the bound copies you request are to be mailed, you must provide an address and \$5.00 cash per address. Vicki Ruddick will assist you with any questions you have concerning the thesis copies at the departmental level.

Check Out Suggestions:

When you have completed your course of studies here at Civil & Environmental Engineering, please be sure to do the following before you leave.

- Clean your office space and lab to leave it in good shape for the next student.
- Remember to return your CEE keys to the key coordinator in Sloan 101.
- Return books to appropriate locations/people.
- Remember to give your forwarding address and phone number to the department/university.

Timetable - Deadlines are established by the Graduate School and found online at <http://www.gradsch.wsu.edu/>. Students intending to graduate should be certain to check this list during their second semester. Because these dates vary somewhat each semester, it is the responsibility of the student to know the schedule.

When	What To Do
Before first semester registration	Meet with faculty mentor to plan course of study for first semester Attend TA Workshops if applicable
Before second semester registration	Determine research supervisor & establish committee
At end of first year of graduate work	Submit Program of Study
During last semester: (date set by Grad School)	Apply for degree
At least 14 calendar days before scheduling final examination	Submission of final draft of thesis to committee members
At least 14 calendar days before requested examination or no later than (date set by Grad School)	Scheduling of final examination

In addition to these dates, graduate students should be aware of the Departmental rules and requirements regarding distribution of thesis drafts. Because a student only has five working days after defending their thesis to turn in the final version to the Graduate School, substantially all changes must be addressed prior to defending their thesis in the final exam. Consequently, your committee members need to have read your **thesis prior to scheduling a thesis defense date**. This means committee members should receive copies of your thesis at least one month before scheduling the final exam. Depending on your advisor and your writing ability, you should generally allow for three to four weeks prior to this for addressing the rough draft comments.

PH.D. PROGRAM

Doctor of Philosophy (Ph.D.) Degree

- A. A minimum of 72 credit hours distributed as follows (Additional details are given in the Graduate School Policies and Procedures at <http://www.gradsch.wsu.edu/>):
- B. Successful completion of a qualifying examination prepared and administered by the student's advisory committee at the end of the first year.
- C. Successful completion of a preliminary examination, both written and oral, prepared and administered by the student's Advisory Committee one semester before final defense.
- D. A defense of the Dissertation.
- E. A dissertation, approved by the student's Advisory Committee, based on the research conducted as part of the graduate program.

PhD Program	Number of Credit Hours
Graded graduate coursework	45
Graded seminar (CE 580)	2
CE 800 (dissertation)	25
Total credits	72

Curriculum

The curriculum for the Ph.D. degree will be tailored for each individual student. Although a designated minor is not required, many programs may include a minor subject.

Program Committee and Advisor

Each student will be assigned an advisor who will recommend a dissertation Committee. The Committee will consist of at least four members. At the Doctoral level, the committee also has the responsibility for the Ph.D. preliminary examination and the qualifying examination for the Doctor of Philosophy degree.

Qualifying Examination (Departmental Requirement)

Each student must take this examination within the first two semesters of entering the Ph.D. program. The primary purpose of this examination is to assess at an early date the student's qualification and potential to complete the doctoral program in a timely manner.

Subject matter to be covered in this examination will be primarily from both graduate and undergraduate course work already completed in the area of major interest.

The examination will consist of a written part of 4 to 6 hours duration and an oral part of 2 to 3 hours. The oral part may be waived for a student showing exceptional performance in the written part. This examination will be given by the dissertation committee who may solicit questions from other faculty members. Procedures for this examination will be the same as those for the preliminary examination described in the Graduate Bulletin. However, this is a departmental examination; the Graduate School is not involved in scheduling, and does not send a representative to oversee the examination process.

The committee will recommend one of the following outcomes of the qualifying examination to the Department Chair:

- (1) Student qualifies to continue.
- (2) Student qualifies to continue provided specified courses are completed successfully.
- (3) Student does not qualify but may retake this examination within 3 months.
- (4) Student does not qualify and should be terminated from the doctoral program.

To recommend option 4, the number of votes will be the same as that specified for passing the preliminary examination. After consultation with the Department Chair, the advisor will convey in writing the results of the examination to the student.

Preliminary Examination

Each student is required to pass a preliminary examination in order to become a candidate for the Ph.D. degree. This examination will be taken after most of the required course work has been completed, as determined by the dissertation committee, and upon submission of a dissertation research proposal. The Preliminary Examination will consist of written and oral parts. The

written and oral portions will focus on the student's major area of specialization, courses taken, and the subject matter of the proposed research.

Dissertation and Final Examination

All students are required to present a seminar on their dissertation to the faculty and graduate students during the final semester of their program. The final oral examination will consist of questions related to the student's research as well as coursework.

Students must submit the final copy of the dissertation to the Graduate School in digital format. The Graduate School will provide guidelines for the proper procedure. The candidate for degree will continue to submit one paper copy of the title page, one paper copy of the abstract, and one original signature page--on 100% bond. Signatures should be in black ink.

In addition:

Dissertation copy requirements: Copies must be provided to the department, the committee chair and any committee member requesting it. For the department copy, submit an unbound signed copy and \$20.00 cash. Do not have it bound yourself. Additional dissertations can be bound at the same time for personal use by submitting an unbound copy and \$20.00 cash. If the bound copies you request are to be mailed, you must provide an address and \$5.00 cash per address. Vicki Ruddick will assist you with any questions you have concerning the dissertation copies at the departmental level.

Timetable - deadlines are established by the Graduate School and found on their website at <http://www.gradsch.wsu.edu/>. Students intending to graduate should be certain to check this list early in their final semester. Because these dates vary somewhat each semester, it is the responsibility of the student to know the schedule.

When	What
Before first semester registration	Meet with faculty mentor to plan course of study for first semester
	Attend TA Workshops if applicable
Before second semester registration	Determine research supervisor & establish committee
Before the end of first year of graduate work	Qualifying examination
At end of first year of graduate work	Submit Program of Study
After approval of program of study and completion of a substantial portion of the program	Scheduling of preliminary examination
At least four months prior to final oral examination	Preliminary examination
During last semester: (date set by Grad School)	Apply for degree
At least 14 calendar days before scheduling final examination	Submission of final draft of thesis to committee members
At least 14 calendar days before requested examination or no later than (date set by Grad School)	Scheduling of final examination

In addition to these dates, graduate students should be aware of the Departmental rules and requirements regarding distribution of dissertation drafts. Because a student only has five working days after defending their thesis to turn in the final version to the Graduate School, substantially all changes must be addressed prior to defending their dissertation in the final exam. *Consequently, your committee members need to have read your dissertation prior to scheduling a dissertation defense date.* This means committee members should receive copies of your dissertation *at least 14 days before scheduling the final exam.* Depending on your advisor and your writing ability, you should generally allow for three to four weeks prior to this for addressing the rough draft comments.

Financial Support

Financial support for graduate students is most commonly available in the form of either a teaching assistantship or research assistantship. If you have arrived at WSU without funding and wish to be considered for future funding opportunities, you should submit a written request to the Group Graduate Coordinator. Being on financial support requires you to be on the thesis option.

Teaching Assistantships - If you have been awarded a TA position, you will have already received a letter stating the terms of that appointment. Teaching assistantships are state-supported half time, positions available to students with strong academic records. Graduate students on teaching assistantships work approximately 20 hours per week in teaching laboratory sections, grading homework, or answering questions during office hours.

Teaching assistantships are normally only available during the nine-month academic year. Graduate students on teaching assistantships should work closely with their mentor to identify a research project and to move toward a research assistantship.

Research Assistantships - Stipends are also available for graduate research assistantships, in which the work conducted is on an externally funded research project. Research assistantships have been funded by external agencies such as the National Science Foundation, the Environmental Protection Agency, or the Washington State Department of Transportation. If you have been awarded an RA position upon admission, you will have already received a letter with information regarding the terms of that appointment and the faculty member who has agreed to provide funding. Graduate research assistantships are half-time appointments, usually cover the summer months in addition to the academic year and the results of the work are applied to the research assistant's thesis.

Scholarships/Fellowships

Scholarships are limited and the department will select recipients at time of admission.

Registration Requirements Based Upon Level of Financial Support

Level of Financial Support	Registration Requirements
1/2-time employment (including all Teaching and Research Assistants)	18 credits including CE 600, 700, 702, or 800 for each full semester. Students using departmental facilities during the summer are required to enroll for at least three graduate credits.

International Student Concerns

International graduate students in the Department of Civil & Environmental Engineering often have special concerns which may affect their course of study, finances, and length of stay in the United States. International students will find the Office of International Students and Scholars (108 Bryan Hall; 335-4508) a valuable resource in answering questions of concern. Some typical concerns of international graduate students are related to financial issues and these are described below.

Tuition - International students on research and teaching assistantships follow the same rules for payment of tuition as U.S. students. If an international student is not supported on a teaching or research assistantship, they are required to pay out-of-state tuition.

English Proficiency Test - International students who have been awarded a teaching assistantship must take the English Proficiency Test prior to the start of the semester if English is not his/her first language.

Taxes - International students who are employed in the United States are taxed the same as residents but file using different forms. Taxes are due on April 15. Most graduate students will find filing fairly simple (during March of each year.) International Programs conducts workshops to assist with the filing of the forms.

Graduate Student Admission Policy
Department of Civil and Environmental Engineering
Approved May 1998
(Updated October 2008)

General Information

Admission to the graduate program in the Department of Civil and Environmental Engineering at Washington State University is based on quantitative and qualitative criteria, as well as availability of resources. A complete application file includes the following items:

1. Completed application form
2. Official transcripts from all colleges and universities attended
3. Official GRE scores – preferred but not required
4. Official TOEFL scores (where applicable)
5. Statement of purpose
6. Three letters of recommendation

Qualitative Criteria

Qualitative criteria include professional experience, demonstrated leadership, professional and community service, statement of purpose and reference letters.

1. The “Statement of Purpose” is a one page statement of academic and career goals which identifies the area of emphasis (written within the last 12 months).
2. Three letters of recommendation which are sent directly to the Graduate School and filled out online

Quantitative Criteria

1. Grade point average
 - A. For the masters degree, the minimum GPA is 3.0 (4.0 scale) based on the last 60 semester hours of undergraduate coursework.
 - B. For the doctoral degree, the minimum GPA is 3.4 (4.0 scale) based on graduate coursework from the masters degree. (If less than 12 semester hours of graduate coursework have been completed, then the last 60 semester hours consisting of a combination of graded undergraduate and graded graduate coursework will be used for the basis of grade point average).
2. Graduate Record Examination – preferred but not required
 - A. The GRE examination must have been taken within the last five years.
 - B. Be officially reported to this university to be considered a part of the application.
3. TOEFL Examination
 - A. A minimum TOEFL score of 550 is required if student is not from an English speaking institution.
 - B. The TOEFL examination must have been taken within the last two years.

Provisional Admission

The CEE Graduate Committee must review any graduate applications that do not meet the departmental minimum requirements. In these cases, the faculty advocate (i.e. potential advisor) must provide written justification for admission, along with proposed contingency requirements (e.g. coursework). Students with GPA between 2.8 and less than 3.0 can be considered for provisional admission. Students interested in the environmental engineering program and possessing substantial work experience, but with GPA less than 2.8, may be considered for admission after completing CE 515, CE 547 and **one of** CE 541 *or* CE 508 *or* CE 588 *or* CE 589 with a GPA of 3.4 or higher. After demonstrating potential success, students may then apply for admission into the masters program.