



## INTRODUCTION

The faculty and staff of the Gene and Linda Voiland School of Chemical Engineering and Bioengineering are pleased that you have decided to join our graduate program. We fully anticipate that you will have a productive, successful graduate educational experience. Our goals are to help you advance your career as you learn to become an independent scholar.

In this document we will acquaint new students with the Chemical Engineering graduate program and with the procedures, regulations, policies, and expectations of the department and the university. This document is intended to provide information concerning the questions asked most frequently by new graduate students and is not intended to be all-inclusive. Each student is responsible for knowing, understanding, and following University and the Graduate School regulations and policies. The latter are documented in the Graduate School Policies and Procedures, a Graduate School publication.<sup>1</sup> You should read this publication carefully so that you are aware of forms and deadlines that govern your enrollment in Graduate School at WSU.

We hope that all of your questions will be answered in this handbook. However, if you have any additional questions, please drop by the office in Dana 118. We hope you will enjoy your time at WSU.

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<sup>1</sup> [http://www.gradschool.wsu.edu/current-students/2008\\_updatedpolicies/](http://www.gradschool.wsu.edu/current-students/2008_updatedpolicies/)

## New Student Check-In

When you arrive in Pullman you should check in with the department in Dana 118. In order to receive stipend checks, each student must have a social security number, a local (in-state) address, and an I-9 Employment Eligibility Verification form (see detailed information below).

### Getting Paid

New students who are on appointment -- that is those who have been offered a Research Assistantship (RA) or a Teaching Assistantship (TA) and those who will be paid on an hourly basis -- are considered employees of the university. Consequently it is necessary to have a social security number in order to fill out an I-9 form and a W-4 form.

### Social Security Number

New foreign graduate students who do not have a social security number should apply for one immediately. Usually, there is a table set up during Foreign Student Orientation at which you can apply. If you don't have the chance to apply there, the closest office is located in Moscow, Idaho in the Federal Building (Post Office), 220 E 5<sup>th</sup>, Room 230. This office is only open on specific dates. The Lewiston Office, located at 1617 19<sup>th</sup> Avenue, is open weekdays, phone: (208) 746-2995. When applying for your social security number, **OBTAIN A COPY OF YOUR APPLICATION** and present it at the Payroll Office, 236 French Administration Building. This will enable Payroll to provide a temporary social security number for payment of your first check only. **Once you receive your social security card in the mail take it to the departmental secretary** who will make a copy and send it to the Payroll Office. You cannot continue to be paid without a social security number.

### I-9 Form

New students must also fill out the top portion of an I-9 form and present the required identification at the school office. Check the list of acceptable documents on the back of your I-9 form. We are required to personally view and make copies of your documents.

### W-4 Form

All newly employed graduate students must complete a W-4 form. There should be one in the jacket of this notebook, but if not you can obtain one in the school office. By state law all students who are on appointment must live in the state of Washington.

### Tuition and Fees

**Each graduate student is personally responsible for paying student and activity fees, and residual tuition.** These amounts vary from year to year. Graduate students on appointment will receive medical insurance as a fringe benefit.

### Pay Periods

For those on appointment, the hire date is August 16<sup>th</sup> (January 1<sup>st</sup> for spring semester; May 16<sup>th</sup> for summer semester). You will be paid twice per month; you will receive the paycheck for the first half of the month (1<sup>st</sup>-15<sup>th</sup> of the month) on the 25<sup>th</sup> of the month; you will receive the paycheck for the second half of the month (16<sup>th</sup>-last day of month) on the 10<sup>th</sup> of the following month. Checks are mailed to your home address or you may make arrangements for direct deposit to your bank through the Payroll Office. If you do not receive your check, be sure that you have supplied us with your social security number, have submitted a W-4 form, an I-9 form, and have your correct address on file in the Payroll Office.

A copy of your Personnel Action form for your appointment may be enclosed in the jacket of this document. You should keep this form with you during the registration process as proof of your appointment.

### Addresses and Phone Numbers

Each individual is responsible for keeping his/her mailing address current with the university. Make address changes via myWSU. The departmental office also needs an up-to-date listing of graduate student addresses (physical and email) and phone numbers. Please give this information to the department secretary in Dana 118.



## GRADUATE ADVISOR/RESEARCH PROJECT SELECTION

Unless specific arrangements and offers have been made to the contrary, all graduate students in the chemical engineering program are employed as Teaching Assistants during their first semester at WSU. This gives you, the student, time to become acquainted with the program and to make an informed selection of graduate mentor and research project. Nevertheless, it is essential that you conscientiously work toward the selection of the mentor with whom you will complete the research portion of your graduate education and the specific project on which you will work. Thus, the following procedure is designed to help you complete steps that will enable you to make a well-informed project selection decision. For those students who are participating in a training program, such as the Protein Biotechnology Training Program sponsored by the NIH, the laboratory rotation requirements of the training program supersede those described below.

Even if you came to WSU to work in a specific laboratory for a specific individual, all students are required to complete the activities described below. These activities help you understand the range of activities in the School and to have some knowledge of the resources available in the various laboratories on which you might draw as you pursue your graduate degree. Therefore, as soon as possible after you arrive at WSU, you should arrange to meet with each potential mentor. Depending on the faculty member's preferences, you may be asked to either meet individually with the faculty member, or she/he may arrange a time to meet with new graduate students as a group. In this meeting, the faculty members will discuss their general research program and potential research projects. To ensure that all new students meet with each potential mentor, the form included in the front pocket of this handbook must be initialed by each faculty member listed. After you have visited with all the potential mentors, the form should be turned in to the departmental secretary. On this form, you should list, in rank order, five faculty members with whom you would like to complete a laboratory rotation during your first semester at WSU. Should you desire rotations with faculty both in Pullman and Richland, every effort will be made to devise strategies to allow you to spend time in laboratories and interacting with faculty on the appropriate campus.

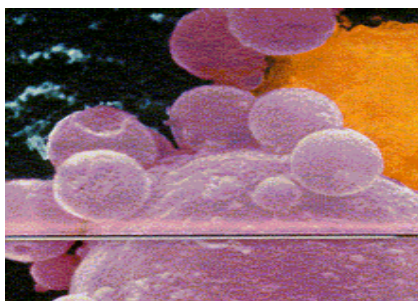
Within two weeks after submission of all rotation selection forms, the potential mentors will meet and determine laboratory rotation assignments. During the laboratory rotation, you will spend 3 weeks working in each of three faculty laboratories. During this time, you are to participate in laboratory group meetings, learn about general laboratory procedures, become acquainted with graduate students working with the

faculty member, and generally become more informed of the faculty member's research, style, and typical expectations. At the same time, the faculty member and his/her current graduate students will be assessing your work ethic, background knowledge, communication ability, personality, etc to determine your fit with the group. It is your responsibility to take the steps necessary to learn the time and location for group meetings, to interact with existing group members, etc.

By the end of the first week of December, you should provide a rank list of mentors and projects for the research portion of your graduate educational experience. Your list must contain at least one project from each of the faculty with whom you completed a laboratory rotation, but it may also include projects led by other faculty with whom you had discussions but did not complete a more in-depth laboratory rotation.

After all new students have submitted their preference list, the faculty will meet to assign each student a specific project. Every attempt will be made to assign you to your first, second, or third choice. Should this not be possible, the School Director and select faculty will confer directly with you before assigning you to work on a specific project. Note, however, that only in extremely exceptional circumstances will students be allowed to work on projects funded by the School. That is, virtually all students will be expected to work on projects funded by externally sponsored grants/contracts which will pay student salaries and provide needed equipment and supplies. Alternatively, for new faculty, institutional resources provided to help initiate the faculty member's successful career (so-called startup funds) may be used to support a student and provide supplies.

To ensure smooth and steady progress toward the degree, it is very important that you begin research as soon as possible. In cases where students delay beginning their research, completion of the thesis often significantly delays graduation.



**All graduate students are required to take the "Responsible Conduct of Research" training.** This is a web-based training located at [myResearch.wsu.edu](http://myResearch.wsu.edu). See appendix A.

## FINANCIAL SUPPORT

Many students are offered financial support as either a Research Assistant (RA) or a Teaching Assistant (TA). Such financial support, regardless of the type of appointment, should be viewed as a job which requires work in addition to the coursework and research required to complete your degree. Moreover, the work performed on the appointment may or may not be congruent with the work needed to complete the research portion of the degree. Thus, in addition to the research activities needed to complete the degree being pursued, a student appointed on a half-time RA should perform no less than 20 hours per week service for the project supporting him/her.

A student appointed as an RA will typically receive 11 months of support per calendar year. The actual salary paid is determined by the major advisor based on availability of sponsored program funds using a salary step schedule established by the university. As noted above, an RA is expected to work on a sponsored research project and to also make normal progress on her/his research project. The sponsored research project that supports the student may or may not be congruent with the research project being completed as part of the degree program. Like faculty, RA's are typically paid for 11 months per calendar year, with one month of vacation, including semester and summer breaks. In all cases, students should obtain permission from their major advisor before scheduling vacations.

TA appointments are normally assigned to first-year Ph.D. candidates and only apply during the 9-month period between August 16 and May 15. Consequently, these appointments are usually supplemented by two months summer support (as an RA, time slip, or TA for summer-session classes). As in the case of RAs, 20 hours/week of service are expected for a half-time TA appointment.

Provided funds are available, PhD students will receive financial support while completing the degree at WSU. However, continuation of financial support depends upon research aptitude and productivity, maintenance of a satisfactory grade-point average, academic integrity, timely progress toward degree completion, and the availability of funds. Typically, support is not provided for those students who plan to terminate studies after the MS degree. PhD students making timely progress toward their degree should plan to complete their degree within 3-5 years of study beyond the bachelor's degree.

## **M.S. PROGRAM REQUIREMENT**

The M.S. programs are designed to be a mixture of advanced course work and an individual research project leading to an acceptable thesis. For those students selecting the thesis option, a major advisor and research project should be selected during your first semester. Within the second semester of your graduate studies, you should select a thesis committee and submit a program of study. The primary purposes of the thesis committee is to provide advice about your research project, to examine the thesis, make constructive criticisms of its content and presentation, and to administer the final oral examination. The final oral examination is normally, but not necessarily, limited to a defense of the thesis. An important component of the final examination is the presentation of a formal seminar on your research results before faculty and graduate students. The specific requirements for each of the three M.S. programs offered by the department are given on the following three pages.

## **M.S. IN CHEMICAL ENGINEERING**

### **CONVENTIONAL PROGRAM** STUDENTS WITH B.S. IN CHEMICAL ENGINEERING

#### **THESIS PROGRAM**

1. ChE 510 or the equivalent; ChE 541 or the equivalent; ChE 596 and 597 or the equivalent
2. Three additional graded credits to be chosen from ChE 527 or 529
3. Nine credits in supporting courses as approved by advisor. Also, see policy regarding electron microscopy course
4. Minimum of nine (9) credits in ChE 700
5. Submit program within first semester after admission into program

#### **NON-THESIS PROGRAM**

1. ChE 510 or the equivalent; ChE 541 or the equivalent; ChE 596 and 597 or the equivalent.
2. Twelve (12) additional graded credits to be chosen from chemical engineering graduate course offerings.
3. Five (5) additional credits approved by your advisor
4. Minimum of four (4) credits in ChE 702
5. Submit program within first semester after admission into program

## M.S. IN CHEMICAL ENGINEERING

### CONVERSION PROGRAM (PROGRAM FOR STUDENTS WITH NON-CHE DEGREES)

#### 1. Removal of Undergraduate Deficiencies

Equivalent of . . .

Math 315	ChE 310
Physics 201/202	ChE 321
Chem 331/336	ChE 332
Chem 340	ChE 334
ChE 201	

#### 2. ChE 510, 541 596 and 597

#### 3. Three credits from ChE 527 or 529

#### 4. Nine credits in supporting courses Also, see policy concerning electron microscopy course.

#### 5. Minimum of nine credits in ChE 700.

#### 6. Submit program within first semester of admission into graduate program.

## STATEMENT OF EXPECTATIONS

The Conversion program listed above is available to accommodate individuals possessing degrees in chemistry. However, the program can also accommodate students with degrees in other scientific/engineering disciplines on an individual basis.

Normal department policy is *not* to place students in this program on appointment status (i.e., on graduate stipend) until they have completed one full semester while taking three chemical engineering courses. It is expected that a student should be able to earn at least a 3.2 GPA during that semester in order to be put on subsequent appointment. Once a student is put on appointment, the remaining deficiencies can be removed while simultaneously meeting the specific M.S. requirement (numbers 2-5 above) as well as the responsibilities for the student's research project (~20 hrs/wk).

**M.S. IN CHEMICAL ENGINEERING**  
**THE BS/GRAD PROGRAM**

The BS/GRAD program provides you the opportunity to complete an M.S. in Chemical Engineering within 12 months of being awarded the B.S. degree in ChE and to accelerate progress towards a Ph.D. degree if that is the ultimate goal. The department needs an official acceptance or rejection of the offer made to you to participate in the BS/Grad Program. A simple sentence indicating your intentions and your signature will be sufficient. Here is the way the program works during the M.S. course of study.

***During the Senior Year*** .....

Six credits from ChE or technical electives can be reserved for graduate credit (three each semester). These six credits are then waived by the department as requirements for the B.S. degree. ChE 499 can be taken to fulfill the remaining three credits of ChE electives and the research topic can be the subject of the M.S. thesis. This is an opportunity to get started on the M.S. research project during the senior year.

Apply for admission to Graduate School online. Three letters of recommendation are required.

***Select your Research Project***.....

Each student is required to interview all ChEBE Faculty to learn about the research projects available. A project selection form is available from the department office. At the conclusion of your interviews you will indicate your first, second, and third choices and return the form to the office. The faculty will then meet to make a decision regarding your research assignment.

***Stipends***.....

Students may be appointed to a Research Assistantship (RA) for two summer months following receipt of the B.S. degree. During graduate studies, students may receive an RA in accordance with the financial support policies above. RA support must be derived from externally sponsored research grant/contract funds. Those students who commit to receive a PhD degree at WSU may also qualify for departmental TA support.

## Ph.D. PROGRAM REQUIREMENTS

### Admission and Qualification

The Department does not administer a qualifying examination. A student holding an M.S. in Chemical Engineering from another school who gains admission is considered to be qualified. A student who is in our M.S. program and who wishes to continue on to a Ph.D. should make her/his intentions known to the School Director. This is normally done toward the end of the second semester in residence. Shortly thereafter, the Chemical Engineering faculty will meet to consider the application. The faculty will evaluate each application, basing their decision primarily on the student's performance in graduate level chemical engineering courses and on evidence of research aptitude. A favorable decision by the faculty will constitute an offer of admission to the Ph.D. program and automatic qualification to pursue the Ph.D. degree. If the decision is favorable, **the student must make a formal application to the Graduate School**. Once a student has been officially accepted into the Ph.D. program, the course and examination requirements of this program come into effect.

### Course Requirements

The Chemical Engineering faculty, recognizing that the Ph.D. degree is a research degree, holds to the minimum course requirements set by the WSU Graduate School. That is, 34 credits of graded course work beyond the B.S. degree in Chemical Engineering and a minimum of 17 credits in ChE 800. As part of the 34 graded course work credits, the student is also required to fulfill the M.S. requirements. That is the completion of ChE 510, 541, 596 and 597 or their equivalents. In addition, 18 graded course credits in 500-level chemical engineering courses are also required. The required 500-level ChE courses are counted in this total. The specific program of study is subject to approval of the student's Ph.D. committee and it is possible that the committee could require more than this minimum. Also, see policy concerning electron microscopy course. (page 16)

### Preliminary Examination

Successful completion of a preliminary examination is required by the WSU Graduate School as partial fulfillment of the Ph.D. degree in Chemical Engineering. The preliminary examination should be taken upon completion of the majority of formal course work, typically after four semesters from the B.S. degree. The examination is divided into two parts: a written examination on the course work taken, and the preparation and oral defense of a formal research proposal. The following is a statement of policy regarding the procedures, schedules, and requirements for each portion of the examination.

### Written Exam

The written portion of the examination will be waived for resident students who have earned a 3.5 GPA based on all 500-level ChE courses (except ChE 596 and 597). The 3.5 GPA must be earned in at least 12 credits of these courses.

The written examination will be given once a year (early summer) and will consist of an open book examination, four hours in length. Candidates will answer four of the six questions from the general areas of: Transport Phenomena, Applied Mathematics, Kinetics and Reactor Engineering, Thermodynamics, Process Control, and Unit Operations.

If a candidate fails to pass the written examination, she/he may be given the opportunity to retake the examination six weeks after being informed of the failing grade. A second failure will result in a termination of the student's Ph.D. program.

### Research Proposal

Upon being informed of the waiver or the successful completion of the written examination, the candidate will prepare and formally present a research proposal. This must be done within six weeks after being informed of passing or waiving the written exam. Failure to do so within the allotted six weeks will result in having to take or re-take the written exam the following year.

The proposal should not deal directly with the student's doctoral dissertation but rather on some related aspect that will not be covered during the thesis work. It should also be kept in mind that the proposal should deal with a "new" research idea and is not simply a review of research that has already been completed or reported in the literature. The presentation will be formal and will be given to the entire Chemical Engineering faculty, including the Ph.D. committee. Each ChE faculty and committee member will then vote on whether the candidate has successfully passed the preliminary exam and be admitted to candidacy for the Ph.D. The recommended format for the proposal is given in Appendix B.

### Bypassing the M.S. Degree

Provisions exist for bypassing the M.S. degree and proceeding directly from the B.S. degree to the Ph.D. degree. However, this option is available only to students who hold a B.S. degree in Chemical Engineering. To be granted this provision a student must first obtain approval from his/her major professor. With this approval the Chemical Engineering faculty will then meet to consider the request. If the faculty decision is favorable, the student must then meet the Graduate School requirements of 26 credits of graded course work and two credits of ChE 702 and will be awarded a non-thesis M.S. degree in Chemical Engineering. The successful completion of ChE 702 requires that the student prepare a manuscript suitable for publication or a formal report detailing the results of the research completed to date. All of these requirements for the Ph.D. degree are summarized on the following page.

## **Ph.D. IN CHEMICAL ENGINEERING**

### A. Course Requirements

1. ChE 510 or the equivalent
2. ChE 541 or the equivalent
3. CHE 596 and 597 or the equivalent.
4. A total of 18 credits from 500-level chemical engineering courses (requirements 1 – 3 three are counted in the total).
5. Twelve credits in supporting courses which satisfy general Graduate School requirements
6. A minimum of 17 credits in ChE 800
7. Submit program to the Graduate School within the first semester of admission to the PhD Program

### B. Admission to Candidacy

A student must satisfy the following two requirements in order to be admitted to candidacy:

1. Pass a written preliminary examination based on the graduate courses taken. This examination is taken 12-15 months after a student has been accepted into the Ph.D. program. This examination may be repeated once three months after the first attempt. This examination can be waived if sufficiently high grades are achieved in certain core courses taken on the Pullman campus.
2. Oral presentation of a written proposal to the student's Ph.D. committee. The proposal, based on a research idea related to the doctoral research, is presented within six weeks before or after the written preliminary examination. Specific guidelines for the preparation of the proposal are given in Appendix B.

## GRADUATE COURSE OFFERINGS

In order that students may have a wider course selection, some of our graduate lecture courses are taught cooperatively with the University of Idaho. Students are encouraged to use the busses that operate on a regular basis to commute between the two campuses. Normally the department does not offer courses in the summer. Appendix C lists a description of all the departmental graduate level courses.

## ANNUAL REVIEW OF GRADUATE STUDENTS

In accordance with university policy, all students on appointment, whether they are RAs, TAs or Scholars, must be reviewed on an annual basis. This review is conducted during the spring semester. In addition to satisfying university regulations, it is good policy to have a formal feedback mechanism so that each graduate student can gauge the faculty's perception of the progress that is being made on achieving degree objectives. Because of this latter consideration, it is departmental policy to conduct an annual review of all enrolled graduate students, whether or not they are on appointment.

Appendix D shows the forms that are associated with this review. The process begins with a self-evaluation by each graduate student. The student then gives this evaluation form to his/her major professor who completes the second page of the evaluation and turns it in to the School Director. If, on the basis of this review, the student is deemed to be making satisfactory progress, he/she will receive written notice to this effect. If, on the other hand, there appear to be problems, a second stage of review will be undertaken. In this stage, the School Director will appoint a faculty committee of two members (excluding the major professor) to review the situation in more detail and to issue a fact-finding report together with recommendations. The graduate, as well as the major professor, will receive a copy of that report and appropriate action will be taken on the recommendations soon thereafter.

## DEPARTMENTAL POLICIES

### Use of the Copier

Your major professor may require that you make copies of journal articles. These copies must be made at the Owen Science and Engineering Library. Your name will be added to the list at the library so that the charges can be made to the appropriate budget. **The ChE department copy machine is not available for making personal copies.** If copies are needed for research purposes, you must use a code that identifies the sponsored project responsible for the cost of the copies.

### Use of Phones and FAX

The phone in the ChE office (Dana 118) can be used for long distance, but it is limited to university-related calls. Once your research project is selected, your advising professor may ask you to make long-distance phone calls for price estimates or for various other reasons. Please check with office personnel for the procedure for making long-distance phone calls. Use of the FAX machine has the same restrictions as use of phones.

### Thesis Preparation Expenses

There are expenses associated with the preparation, duplication, and binding of your thesis. Unless these expenses are covered by a funded research grant (check with your major professor), **you are expected to cover these costs.** The department also requires that one copy of the thesis be bound and provided to the departmental office using the following specifications:

1. Bound in red sturdite
2. Full title of thesis, name and year on front
3. Name, degree (M.S. or Ph.D) and year on spine

A list of bookbinding vendors is included in this handbook.

### Seminar Attendance

**Enrollment in the graduate seminar course, ChE 598, is required for all graduate students.** Students are responsible for informing the department (prior to the seminar) if they cannot attend seminar for some legitimate reason. Unexcused absences from more than one seminar per semester will result in a failing grade for the course.

### Allowable Credit for Electron Microscopy Course - E Mic 586

Students who require the use of the electron microscope in their thesis work often take E Mic 586. While students may enroll for as many credits as is necessary, **only one credit** of E Mic 586 can be applied to a student's graduate program.

### Enrollment Policies

All full-time graduate students should enroll for 18 credits. First year students will normally take three-four lecture courses each semester (typically nine or twelve credits). All students should enroll for ChE 598 (Research Seminar), one credit. Students should enroll for as many credits of ChE 700 (Master's Research) or ChE 800 (Doctoral Research) as necessary to reach a total of 18 credits. Students not on appointment as teaching, research, or staff assistants, and enrolling solely for the purpose of completing theses or special problems and taking final examinations, must register for a minimum of two semester hours of 700, 702, or 800 credit at Washington State University during that semester or summer session.

International students holding visas should consult with the Office of International Students and Scholars for enrollment requirements. Minimum enrollment for international students is 10 credits per semester.

International students may enroll for two credit hours only for one semester in any academic year during the course of their graduate studies in residence. At the time this option is used, these students should be certain they will complete all degree requirements during that semester of graduation. If international students do not complete, they must enroll as full-time students in any, or all, subsequent semesters in residence. The Office of Immigration and Naturalization Service set this policy.

### Graduate Student Support

If a student has not finished the thesis prior to the end of the department's commitment of an appointment, he/she **MAY** be eligible to be hired (usually as a paper grader) for 20 hours/week on a time-slip basis. While the pay rate is not high, it gives the student the opportunity to apply for an out-of-state tuition waiver. The following lists the priorities for this type of hiring:

1. Out-of-state graduate students who are making satisfactory thesis progress.
2. Graduate students who are making satisfactory thesis progress.
3. Graduate students who are taking an unusually long time to finish but who are doing satisfactory work.

### Department Computer Policies

1. Due the large number of possible security and legal problems, no department computer will be used for the purpose of internet file sharing, i.e. Napster, KaZaA, etc.
2. Students are not to install programs on departmentally owned computers in Dana 215 without authorization.
3. Passwords will be checked for an appropriate level of complexity. Accounts with weak passwords will be first notified by email, and then, if no changes are made, locked until the password can be changed.
4. Users are not to share passwords.
5. In accordance with the university anti-virus policy, all computers on the network will have anti-virus software.

6. Active administration of research computers is the responsibility of the professors in charge of each research group, except in the case of anti-virus software which will be administered centrally.
7. The department reserves the right to scan its domain for vulnerabilities and abnormal network activity. Scanning consists of checking a computer over the network for known vulnerabilities.
8. The department reserves the right to lock out accounts for non-compliance with the above and with WSU policies (Executive Policies 4, 14, and 16). A summary of WSU computing policies may be found at [www.wsu.edu/it/policies.html](http://www.wsu.edu/it/policies.html).

Other computing information (may affect long data collection experiments)

1. The departmental servers automatically reboot at 3 a.m. every Sunday.
2. User files on the server are backed up regularly. A full backup occurs every Saturday at 1:00 a.m. and lasts about 4 1/2 hours. An incremental backup occurs every Tuesday, Wednesday, Thursday, and Friday at 12 a.m. (midnight) and lasts about 30 minutes.
3. Most of the computers in the department are set to scan for viruses at 1:00 a.m. every day. Norton is set to minimize CPU utilization, but if you experience interference with long experiments let the system administrator know.
4. There is space on the server for sharing files. It is at \\chebestor\cheswap. It is emptied each night at 4:00 a.m

## **MISCELLANEOUS INFORMATION**

### Housing

Students interested in on-campus housing should contact Housing and Dining Services at 335-4577. Washington State law requires that graduate students who are university employees (RAs, TAs, etc.) must live in the state of Washington.

### Parking

Parking permits are REQUIRED for you to park on campus. Students needing campus parking permits should contact Parking Services which is located on Colorado Street near the Bookstore.

## Mail

Student mailboxes are located in Dana 110. Official mail, messages, and notices for students will be deposited there. **CHECK YOUR MAIL DAILY.** Personal mail and all publications should be addressed to your residence.

## Ordering Equipment/Supplies

Nothing should be ordered unless approved by your advising professor. Students may obtain pricing information from vendors, but **office personnel ONLY may place orders. Do not, under any circumstances, use your own money to purchase items for your research.** Purchase request forms may be obtained in the ChE Office, Dana 118. An electronic version of the purchase request form is available if you would prefer. Please ask Jo Ann to email you the electronic version of the form. **PLEASE PRINT NEATLY** when filling out these forms in order to avoid delays in processing. On the line requesting a "needed by" date, **please do not put ASAP!!** This will be ignored. Please put the latest date that is acceptable for receipt of goods. Space is provided on the form for you to indicate if you need to have the goods shipped for 2-3 day or overnight delivery. Please be aware that expedited shipping can be very costly. Do not request 2-3 day shipping on every purchase request unless it is absolutely necessary or your advisor has instructed you to do so. Forms to request work to be done by the College Engineering Shops are also available. You will need to know which project is paying for the work on all purchase requests or shop work requests. Examples are included for your reference in the back of this notebook. (Appendices B and C).

You will receive an email message when your order arrives. All orders are delivered to the main office, Dana 118, except for very large pieces of equipment and gas cylinders. When ordering large pieces of equipment and gas cylinders, an alternate delivery location should be provided on the purchase request. A packing slip will be attached to the outside of the box when you receive the order. You must check off all items received, sign the packing slip, and return it to Jo Ann **within three days** of picking up the order. Note on the packing slip any items that were not received. Please don't hesitate to ask questions if you are unsure of the proper procedure.

## Laboratory Safety

The importance of laboratory safety cannot be overemphasized. Unannounced inspections of departmental labs and shops are conducted periodically and general meetings dealing with safety problems are held every few months. Students who are uncertain about the hazards of the chemicals or equipment they are working with should consult a member of the School Safety Committee. Graduate students are also responsible for maintaining a neat and orderly laboratory.

## Checkout Procedures

Students completing their degrees must report to the School office to complete checkout procedures such as submitting a copy of the thesis, returning keys, and equipment, etc. A forwarding address should be left with the secretary in the ChE Office.

**APPENDIX A**

**Laboratory Rotation Selection Form**

This form should be used in submitting your laboratory rotation choices. As you interview each faculty member, obtain his/her initials in the appropriate column. All faculty must be interviewed.

Name \_\_\_\_\_

<b>FACULTY MEMBER</b>	<b>OFFICE</b>	<b>INITIAL</b>
Abu-Lail, Nehal	EME 59	_____
Beyenal, Haluk	Sloan 108	_____
Brewer, Larry	EME 49	_____
Dong, Wenji	McCoy S207	_____
Ha, Su	EME B-53	_____
C. F. Ivory	EME B-43	_____
K. C. Liddell	EME B-45	_____
D. Lin	McCoy S205	_____
J. Petersen	Dana 118A	_____
B. J. Van Wie	EME B-57	_____
A. Vasavada	McCoy S103	_____
R. L. Zollars	Dana 114	_____

**Lab Rotation Choices**

Fill in project name by preference: first, second, third.

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_

Please return this form to the Department Secretary, Dana 118 as soon as you have finished interviewing all faculty.

## APPENDIX B

### **Guidelines for Preparation of Research Proposals by PhD Students**

It is expected that by the time a student advances to Ph.D. candidacy, he or she will have demonstrated the ability to initiate independent work on a research problem of significant scope.

Preparation of a research proposal and an oral presentation to the doctoral committee are required prior to advancement to candidacy. This will serve several purposes:

1. The committee members will use the proposal and presentation to assess the student's development as a creative, independent researcher. Quality of the proposal is an essential factor to be considered by the committee in deciding whether to recommend that a student be advanced to candidacy.
2. Discussion of the proposal among the student and committee members at the time of the oral presentation may facilitate development of additional research.
3. The student's communication skills may be enhanced.

The student will choose the proposal topic after consultation with his or her major professor. The proposal should be in a research area related to, but distinct from the area the student is investigating for his or her dissertation. The oral presentation must be given within six weeks after notification of passing the written preliminary examination. The student shall provide each committee member with a copy of the proposal at least one week prior to the oral presentation. Your presentation should be scheduled through the Graduate School since the presentation constitutes the preliminary examination required by the university, for advancement to Ph.D. candidacy.

Students whose development is judged to be unsatisfactory by the committee will not be advanced to candidacy. The proposal may be written and resubmitted to the committee and the oral presentation repeated once, at a time selected by the committee.

A student's research proposal should be written clearly and concisely. It should not include excessive detail. A thorough grasp of the problem and of the appropriate experimental and/or mathematical methods is extremely important.

The text of the proposal should:

1. Discuss the significance of the problem
2. Briefly survey the pertinent literature
3. Outline the best methods to use in attacking the problem
4. Justify the choice of these methods
5. Indicate what results are expected

Figures and tables should be included if they are needed for clarity. The text itself should not be longer than ten single spaced 8 1/2 x 11 inch pages. References should be included after the text; a format used in one of the major chemical engineering journals should be followed. Appropriate slides or transparencies should be prepared for the oral presentation.



## GRADUATE COURSES

- ChE 510     Transport Processes 3 Transport of mass energy and momentum; steady states as applied to chemical processing; macroscopic and microscopic analyses.
- ChE 525     Polymer Reactor Engineering 3 Reaction engineering applied to polymerization reactions; effects on polymerization rate molecular weight and copolymer composition.
- ChE 527     Advanced Chemical Engineering Thermodynamics 3 Equilibria in physical and chemical systems generalized prediction of thermodynamic properties, non ideal systems.
- ChE 529     Chemical Engineering Kinetics 3 Interpretation of kinetic data and design of non ideal chemical reactors; fundamentals of heterogeneous catalyst preparation, characterization, and theory.
- ChE 541     Chemical Engineering Analysis 2 Mathematical analysis of chemical engineering operations and processes; mathematical modeling and computer application.
- ChE 560     Biochemical Engineering 3 Chemical engineering applied to biological systems; fermentation processes, biochemical reactor design, downstream processing, transport phenomena in biological systems, biochemical technology.
- ChE 574     Protein Biotechnology 3 Same as BC/BP 574 Biotechnology related to the isolation, modification, and large scale commercial production, patenting and marketing of useful recombinant proteins and products.
- ChE 581     Advanced Topics in Chemical Engineering V 1-3 May be repeated for credit; cumulative maximum 9 hours. Filtration, reaction engineering, two-phase flow, non-Newtonian fluids, interfacial phenomena, fluidization, novel separations, biomedical engineering.
- ChE 596     Research Methods I 2 Course seeks to establish sound practices for graduate research and presentation of results. Techniques used for performing thorough literature searches and establishing and testing research hypotheses.
- ChE 597     Research Methods II 2 Establishing sound practices for presentation of research programs and research results.

- ChE 598     Research Seminar 1 May be repeated for credits. Seminar presentations on current topics in chemical engineering research. S, F grading.
- ME 515     Advanced Heat Transfer V 1-3 Derivation of the energy conversion equation; laminar and turbulent forced convective heat transfer with internal and external flow; free convection.
- ChE 700     Master's Research, Thesis, and/or Examination V 1-18 May be repeated for credit. S or F grading.
- ChE 702     Master's Special Programs, Directed Study, and/or Examination V 1-18 May be repeated for credit. S,F grading.
- ChE 800     Doctoral Research, Dissertation, and/or Examination V 1-18 May be repeated for credit. S,F grading.

**Forms for Annual Graduate Student Review**

NAME \_\_\_\_\_

ADVISOR \_\_\_\_\_

First Entered Graduate Program (date) \_\_\_\_\_

Program Submitted (date) \_\_\_\_\_

Ph.D. only: Date of Prelim Exam (completed or planned)

Part I \_\_\_\_\_

Part II (proposal) \_\_\_\_\_

GPA \_\_\_\_\_

STUDENTS COMMENTS (use back of page if necessary):

a. Completion of classes and research work in the last year

b. Plans for next year

Advisor's Comments

NAME \_\_\_\_\_

ADVISOR \_\_\_\_\_

Is the student making satisfactory progress toward completion of the degree?  
\_\_\_\_\_ Yes \_\_\_\_\_ No (please comment)

Do you concur with the student's statement on (b) plans for the next year?  
\_\_\_\_\_ Yes \_\_\_\_\_ No (please comment as to  
what more or less the student should be doing)

List the student's strengths and weaknesses relative to research independence  
(Ph.D. only)

Probable success in completing degree requirements:

\_\_\_\_\_ should successfully complete the degree

\_\_\_\_\_ problems may be encountered in completing the degree

\_\_\_\_\_ probably will not be successful in completing the degree

## FACULTY AND STAFF CONTACT INFORMATION

Abu-Lail, Nehal	EME 59	5-4961	nehal@wsu.edu	Assistant Professor
Ahring, Birgitte	BSEL, TC	372-7682	<a href="mailto:bka@wsu.edu">bka@wsu.edu</a>	Professor
Apel, William	INL	(208) 526-1728	<a href="mailto:waa@inel.gov">waa@inel.gov</a>	Adjunct Professor
Beyenal, Haluk	Sloan 108	5-6607	beyenal@wsu.edu	Assistant Professor
Brewer, Laurence	EME 49	5-1888	brewerl@wsu.edu	Assistant Professor
Coppin, Chris	Spokane			Clinical Assistant Professor
Davis, Denny	Dana 143	5-7993	davis@wsu.edu	Professor
Davis, Howard	Dana 15	5-6834	<a href="mailto:davish@wsu.edu">davish@wsu.edu</a>	Clinical Assistant Professor
Dong, Wenji	McCoy S207	5-5798	wdong@vetmed.wsu.edu	Assistant Professor
Fredrickson, Jim	Battelle		<a href="mailto:Jim.Fredrickson@pnl.gov">Jim.Fredrickson@pnl.gov</a>	Adjunct Professor
Garcia-Perez, Manuel	LJS 205	5-3786	<a href="mailto:mgarciaperez@wsu.edu">mgarciaperez@wsu.edu</a>	Adjunct Professor
Ha, Su	EME B-53	5-3786	suha@wsu.edu	Assistant professor
Hatefi, Arash	Wegner 309	5-6253	<a href="mailto:ahatefi@wsu.edu">ahatefi@wsu.edu</a>	Adjunct Professor
Ivory, Cornelius	EME B-43	5-7716	ivory@mail.wsu.edu	Professor
Majors, Paul	PNNL		<a href="mailto:Paul.majors@pnl.gov">Paul.majors@pnl.gov</a>	Adjunct Professor
Laborie, Marie	RP B	5-8722	<a href="mailto:mlaborie@wsu.edu">mlaborie@wsu.edu</a>	Adjunct Professor
Lee, James M.	EME B-55	5-5252	jmlee@che.wsu.edu	Professor
Liddell, KNona	EME B-45	5-3710	liddell@che.wsu.edu	Professor
Lin, David	EME 47	5-1880	<a href="mailto:davidlin@wsu.edu">davidlin@wsu.edu</a>	Associate Professor
Miller, Reid	EME B49	5-4001	<a href="mailto:millerrc@wsu.edu">millerrc@wsu.edu</a>	Emeritus Professor
Petersen, James	Dana 118	5-4332	<a href="mailto:jnp@wsu.edu">jnp@wsu.edu</a>	Professor and Director
Thomson, William			<a href="mailto:privprof@yahoo.com">privprof@yahoo.com</a>	Emeritus Professor

Van Wie, Bernard	EME B-57	5-4103	bvanwie@che.wsu.edu	Professor
Vasavada, Anita	EME B59	5-8580	<a href="mailto:Vasavada@wsu.edu">Vasavada@wsu.edu</a>	Associate Professor
Ye, Ping	Fulmer 624	5-8258	<a href="mailto:pye@wsu.edu">pye@wsu.edu</a>	Adjunct Professor
Zollars, Richard	Dana 114	5-2670	rzollars@che.wsu.edu	Professor

Estes, Senja	Dana 118	5-4332	sestes@wsu.edu	Curriculum Advisor
Golter, Paul	Dana 111	5-9634	pgolter@mail.wsu.edu	Instr. Lab. Supv.
McCabe, Jo Ann	Dana 118	5-4731	mccabe@wsu.edu	Finance/Budget Coordinator
Thornton, Diana	Dana 118	5-3811	thorntd@che.wsu.edu	Principal Assistant

## COMMUNICATION

# IMPORTANT

The university uses "mailman" as a listserv for communication to groups. A listserv allows a single email to be sent to a static address and all people who have subscribed to the service will receive a copy of the email. The listserv computer automatically unsubscribes users with invalid email addresses.

**All graduate students should subscribe to the listserv.** See the information about "mailman" here: <http://lists.wsu.edu/>

**HOLIDAY SCHEDULE**  
**Washington State University**  
**2009-2010 Academic Year**

Independence Day	July 3, 2009
Labor Day	September 7, 2009
Veterans Day	November 11, 2009
Thanksgiving Vacation	November 26-27, 2009
Christmas Vacation	December 24-25, 2009
New Year's Day	January 1, 2010
Martin Luther King Jr. Day	January 18, 2010
Memorial Day	May 31, 2010

**During the term of their appointments all graduate students (Research Assistants and Teaching Assistants) are expected to be at work each normal workday. This includes periods when classes are not in session.**



## **Community Information The Pullman Community**

Pullman is a small agricultural community with Washington State University as a major employer. Some interesting facts about the city:

- About 25,000 people live in Pullman--approximately 17,000 students and 8,000 permanent residents.
- Seven miles east of Pullman is Moscow, Idaho, which is the home of the University of Idaho.
- Pullman is located in a region called the Palouse.
- Pullman is built on four hills. Locals usually give directions using the name of the hill:

- College Hill--Northeast section
- Military Hill--Northwest section
- Pioneer Hill--Southeast section
- Sunnyside Hill--Southwest section

- The town was originally named "Three Forks" because two streams and a river join downtown.
- Pullman is named for the man who invented Pullman railroad cars, which are cars with small rooms and beds. The city changed its name to Pullman hoping that the inventor would donate money to the city. No money was received.
- The Palouse region is noted for its hills, fertile soil, and crops of wheat, barley, peas, and lentils. The hills were formed in prehistoric times by volcanic ash that drifted from the volcanoes in the west. In 1980, the people of Pullman saw volcanic ash when Mt. St. Helens erupted and ash drifted over to cover the area.

### **Washington State University**

Washington State University and the University of Washington (in Seattle) are research universities. These are the most prestigious universities in Washington's higher education system and they offer graduate level (master and doctorate) programs. Research facilities are provided and faculty is hired to conduct research as well as teach.

WSU is a Land Grant University. In 1862, the federal government donated land to each state to establish schools for rural populations. These schools are called land grant schools. The land grant mission is to provide education in the liberal arts, the mechanical arts, and the agricultural arts. These schools must offer a complete and comprehensive education. The Congress also gave land grant colleges the responsibility of educating the state's people in knowledge discovered through research. Every fall WSU celebrates Land Grant Days and you will often hear of WSU's land grant mission.

WSU has branch campuses located in Vancouver, the Tri-Cities (Pasco, Kennewick, Richland), and in Spokane. There is also the Seattle Center for Hotel and Restaurant Administration and the Intercollegiate Center for Nursing Education in Spokane.

### **Public Transportation**

A transit fee is charged to all WSU students. Just show your WSU ID card as you board the bus. Transit schedules are at various locations around Pullman.

Pullman Transit also offers a Dial-A-Ride service for elderly, handicapped, and temporarily disabled persons. To schedule a ride, call 332-6535 at least one day in advance.

Wheatland Express offers free bus service between Pullman and Moscow. Call 334-2200 for more information or pick up a schedule from the Bookie.

### **Recreation**

The Outdoor Recreation Center (ORC) is located Fieldhouse Annex Room 101 and can provide you with information regarding recreation opportunities in Pullman and the surrounding area. The ORC offers rental of equipment such as skis, backpacks, tents, and sleeping bags. In addition the ORC offers classes on several seasonal sports including cross-country skiing, bicycling, kayaking, and rock climbing. You can also sign up for a variety of trips including whitewater rafting and mountain climbing.

**Summer recreation** opportunities are abundant in the Pullman area. You can enjoy several city parks including Kruegel, McGee, Military, Reaney, and Sunnyside. The pool, located in Reaney Park, is open only during the summer months. The Parks and Recreation Department offers classes, sports, and other activities throughout the year. They may be contacted at 334-3131.

Kamiak Butte State Park, a short distance north of Pullman, offers picnic facilities and easy scenic walking. Steptoe Butte, north of Colfax, is noted for its imposing height and interesting history. You can drive to the top of the Butte. Laird Park in Idaho provides overnight camping facilities, picnic areas, and a small lake for swimming. Boyer Park and the sand dunes along the Snake River are also a short drive from Pullman.

There are many lakes and state parks in the surrounding areas of Northern Idaho, Washington, Oregon and Montana that are available for swimming, fishing, boating, camping and picnicking. Some particular points of interest are Lakes Coeur d'Alene, Pend Oreille, and Priest in Northern Idaho, Mount Rainier in Western Washington, Glacier National Park in Montana, Mount Hood and Crater Lake in Oregon.

If you enjoy **winter recreation** such as skiing you will find many ski areas within easy driving distance of Pullman. Included are Bluewood near Dayton, Washington, 49 Degrees North at Chewelah, Washington, and Mt. Spokane, near Spokane. Larger ski areas are located at Schweitzer Basin near Sandpoint Idaho and Silverwood near Kellogg, Idaho. Special rates on ski trips may be offered through the ORC during Christmas and Spring breaks.

## GRADUATE SCHOOL

### Mission

The mission of the Washington State University Graduate School is to advance graduate education as a critical link in the transmission of new knowledge, new research, new ideas, and new education and scholarship in a 21st century university.

The Graduate School is committed to providing meaningful graduate education by assuring quality and access throughout Washington State University's statewide system.

### Contact Information

Mailing Address: Graduate School  
324 French Administration Building  
Washington State University  
Pullman, WA 99164-1030

#### **Administration**

Howard Grimes	Dean of the Graduate School
Lori Wiest	Associate Dean
Pat Sturko	Associate Dean
Debra Sellon	Associate Dean
Paul Weed	Area Finance Officer

#### **Administrative Support**

Joe Merrill	<b>(509) 335-6412 joem@wsu.edu</b> Administrative Assistant
Beth Kuehn	Receptionist

#### **Academic Programs/Thesis Acceptance (509) 335-1218**

Donna Blacker	Thesis Acceptance/Exam Scheduling
Mary Ohnemus	Program Approval

## **The Graduate and Professional Student Association**

The Graduate and Professional Student Association (GPSA) is the representative body for graduate and professional students at WSU. The GPSA's primary role is to provide academic and professional support services. Through active participation and membership in numerous national, state, and university organizations and committees, the GPSA seeks to provide graduate and professional students with representation and a forum to express their concerns. All graduate and professional students are encouraged to direct their concerns and questions to their respective Senators, District Representatives, or to the President and Vice President. The GPSA Senate, the legislative arm of the GPSA, includes all members of the Executive Committee and all GPSA Senators. Senators are elected within individual departments or programs, usually in August or September.

The GPSA is represented in numerous committees throughout the university that affect the academic and professional lives of students. Among a large number of important functions, these committees decide how student fees are spent, advise on the preparation of university budgets, and set university policy on many issues. Committees include Faculty Senate, Presidential, and University committees. GPSA also has several of its own committees. Information about these committees and GPSA's representation on them is available through the [GPSA Committees](http://www.wsu.edu/~gpsa/committees.html) (www.wsu.edu/~gpsa/committees.html) and [WSU Committees with GPSA Representation](http://www.wsu.edu/~gpsa/committees-wsu.html) (www.wsu.edu/~gpsa/committees-wsu.html) pages.

### **Contact Information**

Graduate and Professional Student Association

Washington State University  
Box 647204  
Pullman, WA 99164-7204

Diana Kime, Office  
Coordinator  
(509) 335-9545  
(509) 335-9530 (fax)

## **Graduate and Professional Student Association Services**

### **The GPSA Study Center in Holland Library**

The GPSA Study Center in Holland/New Library is provided for the benefit of all graduate and professional students at WSU. It is located on the ground floor and is equipped to broadly meet student demand. The Study Center contains 28 individual study spaces, three study tables, and a number of computers as well as a scanner, CD-rewritable disk drive, color printer, and laser printer. There is also a copy machine available in the Study Center. There is no charge for use of any equipment, except for printing and copying.

### **The Copy Card Program**

Because of the extensive research needs of a typical graduate or professional student, the GPSA has established the Copy Card Subsidy Program in an effort to help defray expenses associated with copying journal articles. Subsidized Copy Cards are sold in the GPSA offices on Mondays and Thursdays from 8:30 a.m. to 4:30 p.m. Purchase is limited to one Copy Card per student per week. ID must be presented at the time of purchase.

### **Inter-Library Loans**

Research projects often require books, journals, or articles that the WSU libraries do not own, but can borrow for you from another institution. As long as you are not requesting a rush on the arrival of your material the GPSA fully subsidizes the cost of basic interlibrary loans. The library will automatically waive the fee if you are a Graduate or Professional student.

### **TA Excellence Awards**

GPSA's Teaching Assistant Excellence Award program was instituted to encourage a crucial role played by graduate students at WSU. Of the less than 1400 graduate students, approximately two-thirds are involved in teaching classes to undergraduate/professional students. In an effort to encourage teaching excellence, GPSA organizes the TA Excellence Awards each year. A total of ten awards are given, five to TAs who independently instructed lecture sections and five to TAs who performed supportive duties such as grading, teaching lab sections, or leading tutorials. A monetary prize of \$300 as well as a certificate of recognition will be awarded to each of the ten TAs selected. The awards are based on nominations from departments, faculty members, colleagues, and students.

### **Travel Grants**

The travel grants are available to help defray transportation costs to help students in scholarly activity, research, and in the presentation of papers at significant professional meetings. Travel grants are funded from the GPSA budget and to a certain extent from funds made available by the Graduate School. For more information contact the GPSA.

## COMMONLY USED RESOURCES

### Counseling Services

WSU Counseling Services offers individual counseling for regularly enrolled WSU students and student couples free of cost. There are also group sessions offered which allow students the opportunity to interact with others who face similar problems and in the process, to receive group support and to develop more satisfying relationships. Some of the groups regularly offered by Counseling Services include an international Chat Group, a Dissertation Support Group, Test Anxiety Workshops and Group, and a Stress Management Group. Information shared with a counselor remains confidential according to Washington law and the ethical code of the American Psychological Association. You can make an appointment at Counseling Services, Room 280, Lighty Student Services Building or by calling 335-4511. Counseling is available each weekday. Emergency consultations in the evenings or on weekends can be arranged.

### Health and Wellness Services

Health and Wellness Services offers a broad range of professional services to WSU students. Their clinicians are both care providers and teachers. Not only do they regard each patient encounter as an opportunity to affect your health, attitudes, and behaviors, but they are also involved in the education of paramedical students in a variety of areas. Their Wellness Resource Center offers in-house and outreach programs. The peer-to-peer model is used to address concerns regarding alcohol and drug overuse, sexuality issues, nutrition, and fitness. The close working relationship between Health and Wellness Services and Counseling Services permits timely, integrative, and comprehensive treatment when you experience difficulties that require both medical and psychological intervention. Though these two agencies are administered separately, they define themselves as a uniform health care team for the purposes of consultation, referral, and information sharing.

### Housing

The ASWSU Housing Commission offers free referral services to find housing. They are located in the CUB, room 312, or you can call 335-9574.

### International Programs

The Office of International Programs has a number of resources for international students. Their foreign student advisors are available to help with questions and problems that may be encountered while adjusting to life at WSU. International Programs publishes a handbook containing information specific to foreign students and scholars not included in the general university handbooks. They also provide a number of services that are useful for international students such as those listed below.

International Student and Scholar Section of the International Programs Office. The primary function of the International Student and Scholar section is to provide relevant support services to foreign students and scholars in achieving their educational objectives; groups in promoting intercultural understanding; and departments in hiring foreign faculty and staff. To assist WSU's foreign students, scholars, and their accompanying family members in accomplishing their purposes for being at the university, this program provides service in matters other than academic advising. In general, the faculty members furnish assistance with U.S. government regulations which include those of the INS, and Departments of Labor and of State; in understanding U.S. mores and culture; and in obtaining information and support from appropriate sources within and outside the university. To promote intercultural understanding, the International Students and Scholars office works with university and local community groups in arranging opportunities for interaction between Americans and foreign students and scholars.

ISSWSU (isswsu@listproc.wsu.edu) is a free email announcement service of the International Students and Scholars Office. This list provides timely information related to international students and scholars at WSU such as cultural events, activities, scholarships, immigration information, etc. In addition, you can post messages or announcements to the list if you want to inform the WSU community about a special activity or event. All international students and scholars are invited to subscribe to this list. To subscribe to this service, send an email to: listproc@listproc.wsu.edu. Leave the subject line blank, and type in the body of the message: sub isswsu Real Name (Where real name is your first name and last name). Here is an example: sub isswsu Jane Doe. If you would like the list owners to add you to the list, send an email to janicehu@wsu.edu or mdennison@wsu.edu.

Intensive American Language Center (IALC). The IALC prepares students to communicate in English in order to study in American colleges and universities. The six-level program offers a full-time intensive language study, in which students study the four language skills--speaking, listening, reading, and writing--within a variety of content areas. Another focus of the IALC is to provide students with information about the American people and life in the United States.

### **Student Legal Services**

Student Legal Services is provided by the ASWSU to make legal advice and information available to WSU students either free of charge or at a reduced cost. Student Legal Services will occasionally sponsor seminars and workshops on judicial processes, provide brochures, books, and journals containing information about legal rights and responsibilities and they may obtain discounts for you with local attorneys. For more information, Call Student Legal Services at 335-9539 This service may not be available during the summer months.

## **WSU Visitor Center**

The Washington State University Visitor Center is located in the historic Cougar Depot in downtown Pullman. The building was constructed in 1938 as a passenger terminal for the Union Pacific Railroad. The Center is the first contact for people coming to WSU. The friendly staff helps you locate your dorm or apartment, as well as your departmental contact persons.



## **Cougar Depot**

## **Digital Dissertations and Theses**

All institutions require that doctoral dissertations be published and Bell and Howell Information and Learning is the recognized repository for dissertations.

Policies and procedures have been established at Washington State University to receive doctoral dissertations and master theses in digital format via CD-ROM or a networked server. The doctoral dissertations are then submitted to Bell and Howell Information and Learning for publication in digital format. Master theses remain at WSU. Doctoral and master candidates have the choice of submitting their dissertations/theses in paper, digital, or mixed media format.

### Policies

1. The University will accept a fully digital doctoral dissertation or master thesis as an alternative to the paper format.
2. The Graduate School will accept digital dissertations from doctoral candidates or these from master candidates in an appropriate format, i.e., floppy disks, CDs, or on a networked server or zip drive.
3. The doctoral and master candidates will continue to submit an archival copy (on either 100% cotton or electronic copy) to the libraries.
4. The candidates will continue to submit two paper copies of the title page, two paper copies of the abstract, and two original signature pages - one on 100% cotton bond. Signatures should be in black ink.
5. The Graduate School will continue to perform the format check and provide guidelines to students.
6. The WSU Libraries will house the server to which dissertations or theses in digital format may be submitted. The digital copy should be in PDF format.

### Procedure for Submitting Digital Dissertations and Theses

1. Submit an "Application for Degree" form to the Graduate School by the deadline established (prior to the middle of your last semester). Students will receive written guidelines including procedures for submitting in digital format.
2. Ten working days prior to final examination defense date, submit a completed, signed "Final Examination Scheduling Form" and a preliminary paper copy of the dissertation/thesis to the Graduate School.
3. Five working days following a successful dissertation defense or master final oral examination, send the digital copy of the dissertation or thesis in PDF format

to the library digital dissertation server. At the same time, submit paper copies of the title page, abstract, and signature pages to the Graduate School.

4. If the dissertation or thesis is in other than PDF digital format or if the dissertation or thesis contains other formats embedded in the PDF document, contact Al Cornish (5-1895, cornish@wsu.edu) or Jerry Becker (5-2012, becker@wsu.edu) in the Library Systems Office to discuss how to submit the digital copy.

5. Procedure for sending digital dissertations of these to the library digital dissertation server:

- Go to [www.dissertations.wsu.edu](http://www.dissertations.wsu.edu)

- Click on "upload" and use the following log-on:

  - Username (to be given to the student at the time of scheduling)

  - Password (to be given to student at the time of scheduling)

- Complete the online form and submit it following the instructions on the form

- The name of the file you submit to the digital dissertation server must be submitted in the following format: first initial\_last name\_student ID number. [file extension]

Example: j\_smith\_01234557.pdf

- Library systems will notify the Graduate School when the libraries receive the digital dissertation or thesis.

- If any changes are required after the digital dissertation or thesis has been submitted, the **entire file**, not just the changed pages, must be resubmitted following the above procedures.

6. After final graduation clearance (approximately 30 days following commencement), the Graduate school informs the WSU libraries.

7. Library systems inform Technical Services Bibliographic Control of receipt of electronic dissertation/theses so a cataloguing record can be created.

8. The electronic version is linked to the catalog so that library users can move directly from Griffin catalog record to the electronic text of the dissertation/thesis by clicking on a hot link. A copy of the electronic version of the doctoral dissertation is sent to Bell and Howell Information and Learning for its electronic archives. The electronic version of the master thesis remains with WSU Libraries. (Paper versions of dissertations are delivered to Technical Services and prepared for binding [photocopy version] and shipment to Bell and Howell Information and Learning for microfilming [bond copy]). Dissertations can then be catalogued.

9. After cataloguing, the microform version of the dissertation is housed in Microforms, the photocopy version is shelved in the general stacks, and the bond version is housed in MASC. The electronic version is stored on a server in Library Systems.

## **Contact Information**

### **Career Services**

PO Box 641061  
Pullman, WA 99164-1061  
509-335-2546  
[www.careers.wsu.edu/](http://www.careers.wsu.edu/)

### **Center for Human Rights**

225 French Administration Building  
PO Box 641022  
Pullman, WA 99164-1022  
509-335-8288  
(fax) 509-335-5483  
[www.chr.wsu.edu/](http://www.chr.wsu.edu/)

### **College of Engineering and Architecture**

Dana 146  
PO Box 642714  
Pullman, WA 99164-2714  
509-335-5595  
[www.cea.wsu.edu/](http://www.cea.wsu.edu/)

### **GPSA**

(Graduate and Professional Student Association)  
Washington State University  
Pullman, WA 99164-7204  
509-335-9545  
(fax) 509-335-9530  
<http://www.gpsa.wsu.edu/>

### **Graduate School**

324 French Administration Building  
Washington State University  
Pullman, WA 99164-1030  
509-335-6424  
(fax) 509-335-1949  
<http://gradschool.wsu.edu/>  
[gradsch@wsu.edu](mailto:gradsch@wsu.edu)

### **Office of Financial Aid**

380 Lighty Student Services Bldg  
Pullman, WA 99164  
509-335-4531  
(fax) 509-335-1208  
<http://www.finaid.wsu.edu/>

### **School of Chemical Engineering and Bioengineering**

Dana 118  
Pullman, WA 99164-2710  
509-335-3811  
(fax) 509-335-4806  
[www.chebe.wsu.edu/](http://www.chebe.wsu.edu/)

## Book Binders

Cougar Graphics  
220 S. Main St.  
Colfax, WA 99111  
(509) 397-4925

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