ERE
Policies and Procedures Workshop
Agenda

- ERE administration
- Program Overview
- Transfer Credits (PhD only)
- Enrollment and Funding
- Profiles
- Travel and Reimbursement
- Purchasing
- Recruiting and Events

Note: This presentation provides an overview of detailed policies and procedures from the Stanford Bulletin and ERE Student Handbook. These source references should be consulted for any clarifications and before taking any degree program actions.
ERE Administration

ERE administration collaborates with students, faculty and staff in pursuing the department’s academic goals. The Office provides services and resources on policies and procedures regarding academic programs, research, funding, admissions, and recruiting.

- **Degree Program Administration** (Joanna & Rachael)
- **Research Group Administration**
  - Benson, Brandt, SCCS, SCRF, SmartFields, SUPRI-B (Thuy & Eiko)
  - Clean Energy, Geothermal, SUPRI-A, SUPRI-D (Yolanda & Joleen)
    - Financial & Group Management (Thuy and Yolanda)
    - Reimbursements, Events, Websites (Eiko and Joleen)
- **Keys and Facilities** (Raha)
- **Overall Administrative & Financial Management** (Sandy)
Degree Requirements

- 135 units of coursework required for the PhD; 45 units for MS
  - At least 90 Stanford units dedicated exclusively to the PhD
  - Additional 45 units from prior advanced degree or coursework, or while at Stanford (PhD)
- All students must complete a course list (Program Proposal for MS first quarter; Candidacy for PhD during qualifying exam fourth quarter)
- All required courses must be taken for a letter grade
PhD Milestones

- Qualifying Exam
  - During 4th quarter: part one is a written exam, and part two is an oral exam with committee of 3 faculty members (includes primary advisor)
  - Determines additional training needs and readiness for dissertation research
- Advance to Candidacy
  - Acknowledges potential to complete the degree requirements
  - Occurs after passing the qualifying exam
- Dissertation Reading Committee
  - Comprised of at least 3 faculty readers (includes primary dissertation advisor)
  - Readers can be from outside of ERE
  - One reader can be from outside of Stanford, but must hold a PhD and be approved by the chair (e.g., a professor from UC Berkeley)
- Oral Exam
  - Tests command of field and confirms fitness for scholarly pursuits
  - Defense of your dissertation
- Dissertation submission

MS Milestones

- Program Proposal
  - During 1st quarter consult advisor on course plan
  - Determines additional training needs and readiness for research
- MS Thesis
Transfer Credits for PhD

- Refers to graduate courses taken at another institution (i.e., outside of Stanford).
- Up to 45 quarter units of previous graduate work from accredited institution outside of Stanford or previously completed at Stanford may apply toward your 135 units.
- One semester unit equals 1.5 quarter units
  - E.g.: 4 semester units = 6 quarter units
- At least 33 of the 45 quarter units should be equivalent to Stanford courses (exact match not required)
  - 12 quarter units can be “non-parallel” credit, which includes:
    - Courses without Stanford equivalents
    - Research or thesis courses
    - Independent study courses
- Wait until at least your second quarter to decide whether to transfer external credit
Enrollment

- 10 units each quarter of regular academic year (fall, winter, and spring)
- Students must enroll in at least 8 units to be in full-time student status, regardless of visa status
- Focus on Area and field of concentration courses
- MS Students should enroll in Energy 361 for research units
- PhD students should enroll in Energy 363 for research units
- DO NOT enroll in 285A-G research group
- Energy 801/802 is only for students in TGR status (this is a special registration status once student complete all of their course and unit requirements). Please do not enroll in 801 or 802 unless you’ve been approved for TGR.
TGR (Terminal Graduate Registration)*

- This is a special status for students who have satisfied the unit and course requirements.
- MS students must have at least 45 units on the transcript; PhD students must have at least 135 and reading committee.
- Students must file for TGR the quarter prior to TGR quarter (if you want to advance to TGR in winter, you must file in autumn).
- Students in TGR status are no longer enrolling in courses, only Energy 801 (for MS) or 802 (for PhD) for zero units.
- Graduate tuition drops to about 1/3 of the regular tuition rate.

Grad Quarter Registration*

This is another special status for students who only needs to complete the thesis in order to graduate. Students may petition for grad quarter only once (in the last quarter of program) if all course/unit and milestone (including oral defense for PhD students) requirements are satisfied. Tuition for grad quarter drops down to $100. Petition must be filed the quarter prior to grad quarter status.

*Both TGR and Grad Quarter status require petition and approval from the registrar. Please see student services manager for petition process.
Department Funding

- Covers 10 units of tuition and a salary stipend for Autumn, Winter, Spring
- Pay Periods: Autumn 10/1-12/31; Winter 1/1-3/30; Spring 4/1-6/30
- Students are paid twice a month on 22\textsuperscript{nd} (for first day of month to 15\textsuperscript{th}) and 7\textsuperscript{th} (for 16\textsuperscript{th} to last day of the month)
- Please refer to fingate.stanford.edu if you have specific payroll or tax questions
- Students are responsible to monitor their own bill and to make sure that payments are posted by the University deadline
- All students must complete an I-9 form
Stanford Profile System (CAP)

- University-wide profile system (https://profiles.stanford.edu/)
- Profile categories include: contact info, lab affiliations, education, work experience, current research, publications, and more.
- Entries in your CAP profile page will be also reflected to:
  - “People” section of the School of Earth Sciences website
  - “People” section of the ERE website (new version)
  - “People” section of your research group website (some groups)

- Basic setting has been made for your page.
- **Your responsibility** to maintain your profile page and keep it up to date!
Current Research and Scholarly Interests

My research is in energy system modeling and optimization, focused on CO2 emission control in electric power generation. I apply formal optimization techniques to designing power generation systems that have CO2 capture. The work has focused on the optimal design and operation of an ‘energy park’ -- a facility consisting of electric power generation facility with a combination of coal, natural gas, and renewable generation -- implementing CO2 capture. Computational optimization techniques are used to determine facility design and dispatch algorithmically.

A major finding is that CO2 capture operating economics can be improved substantially by varying plant dispatch in response to changes in energy prices and renewable generation. This improvement in operating economics in turn has important effects on optimal facility design.

More generally, I have academic or professional interests in optimization, energy, computing, and earth/environmental science.

Lab Affiliations

- Adam Brandt, Environmental Assessment and Optimization (8/1/2012)
- Louis Durlofsky, Stanford Center for Carbon Storage (8/1/2011)
- Louis Durlofsky, Smart Fields Consortium (9/1/2009)
Charles A KANG
Ph.D. Student in Energy Resources Engineering

Contact Information
Email: cakcak@stanford.edu
Office: Green Earth Sciences 065, 367 Panama St., Stanford University, Stanford, California 94305

Internet Links:
- Homepage

Honors and Awards
- Henry J Ramey Award for Outstanding Research, Department of Energy Resources Engineering, Stanford University (2014)
- Illich-Sadowsky Interdisciplinary Graduate Fellowship, Stanford University (2012 - Present)

Professional Organizations
- Member, Student Chapter Secretary (2012-2013), Society of Petroleum Engineers (2009 - Present)
- Member, International Association of Mathematical Geosciences (2013 - Present)
- Reviewer, Thermal Science (Vinca Institute) (2014 - Present)

Education
- MS, Stanford University, Energy Resources Engineering (2011)
- BS, UC Berkeley, Engineering Physics (2009)

Work Experience
- Development Intern, Ascend Analytics (6/2012 - 8/2012)
Travel and Reimbursement

You are required to…

Before the trip
1. Submit Travel Fund Application & Student Certification Form signed by advisor before making arrangements.
2. If combining with other Stanford business, personal business, etc. - Talk with Yolanda/Thuy before making arrangements.
3. Make travel arrangements. Pay by yourself or check out Department Travel credit card from Joleen/Eiko.
   - Airfare – Coach class, lowest fare available, NO travel insurance.
   - Lodging – Shared rooms are required whenever possible.
   - Rental Car – Only if other transportation is not available. NO rental insurance within the U.S.

During the trip
4. KEEP ALL RECEIPTS and boarding passes!!!
5. Max. $50/day for meals. NO per diem. NO alcohol.

After the trip
6. Submit your receipts with the conference program promptly. After 60 days, it will be considered taxable and reported to the IRS.
Purchasing

Purchasing -- Two Methods to Purchase (under $5,000)
- Check out purchasing card from Eiko or Joleen to purchase lab supplies, office supplies, or other items related to your research (anything not travel related)
- If a vendor will not accept the credit card, get a written quote from vendor for the item(s) and submit to Joleen or Eiko. They will do a purchase order for payment.
- Receipts are required for all purchases. Either bring them back with the purchasing card or email them to Eiko (erutherford@stanford.edu) or Joleen (jpcastro@stanford.edu)

Purchasing ($5,000 and over)
- Any purchases $5,000 and above require a Purchase Order. Requests will need to go through Thuy or Yolanda for review and approval. They will submit a request to Stanford’s Procurement Dept to generate a Purchase Order.
Quick Tips: Job Search & Interviewing Etiquette

Don’t:

- Make a site visit if you have no intention of accepting a job offer from the company you are visiting. Even if the visit is already planned, it is better to cancel than to proceed with it if your mind is already made up.

- Continue interviewing/negotiating after you have accepted another job offer.

- Change your mind after you’ve accepted a job (except if circumstances have changed significantly).
Job Search & Interviewing

Do:

- Keep companies informed.
- Discuss your job prospects/options with your advisor or other ERE faculty members. They can give you tips on communicating and negotiating with companies.
- Maintain very high ethical standards in your interviewing and negotiating. Your behavior reflects not only on you, but also on future ERE students and the reputation of the Department.
Event Protocol

- Guests first in meal lines.
- Take one serving, to ensure that there is enough food for all attendees.
- Leave the vegetarian options for the vegetarians.
- If the event is hosted by another research group or Department, wait until you are invited to take food. If you are not invited, ask before taking.
- Clean up after yourself. Trash and recycling bins are always provided.
ERE Community
General Etiquette

General expectations for respectful behavior:

- Respect others values and beliefs, even if they differ from yours.
- When planning an event or outing, try to be inclusive (e.g., including non-alcoholic beverages at “Friday Beer”).
- Be respectful to your officemates (e.g., if someone is studying, try to keep noise to a minimum).
- Your officemate’s desk is their personal space.
Additional Resources

- Student Handbook (available under internal resources)
- Reimbursement and purchasing forms (available under current students)
- University Student Affairs (Registrar’s office forms)
  http://studentaffairs.stanford.edu/registrar/forms/grad
- Student Services Center
  http://www.stanford.edu/group/studentservicescenter
- Vice Provost for Graduate Education
  http://vpge.stanford.edu
- Graduate Academic Policies and Procedures
  http://gap.stanford.edu
- Bechtel International
  http://icenter.stanford.edu/
- Wellness Network at Stanford
  https://wellness.stanford.edu/