

ADVANCE-NEBRASKA E-NEWS VOL. 1, NO., 6; 26 JANUARY 2009

HAPPY CHINESE NEW YEAR!



Please feel free to forward, opt out, or provide feedback via email to: advance2@unl.edu.

Please forward any items (announcements, new or classic papers, funding and job opportunities) to advance2@unl.edu.

Thanks to contributors: Mindy Anderson-Knott, Kim Hachiya, Julia McQuillan, Susan Poser, Joy Roberts.

A. Announcements

1. Note Date Change for COACH Workshop: **March 2**: deadline for registration (*required*): Feb. 16
2. ADVANCE-Nebraska **Speakers**, Spring Semester 2009
 - a. This Wednesday, January 28, Brown Bag luncheon w/ADVANCE-Nebraska director Mary Anne Holmes: *The Why and Hows of ADVANCE-Nebraska*. No registration necessary. City Union, room to be posted.
 - b. March 12, Dr. Kimberly Espy, Associate Vice Chancellor, Office of Research: Paths to Success Luncheon (free). REGISTRATION REQUIRED so we'll have enough forks this time! Deadline: March 9. Email advance2@unl.edu.
 - c. April 29: Dr. Heidi Schellman, Northwestern University and Fermi Labs: Paths to Success Luncheon (free). REGISTRATION REQUIRED. Deadline April 27. Email advance2@unl.edu.
3. Dr. Tracy Frank, Department of Geosciences, Nebraska Women in Science keynote speaker, February 20, Holiday Inn-Downtown, Lincoln.
4. February Forum, annual event hosted by UNL's Center for Math & Science Education to honor UNL women junior and senior students in STEM; February 10, 2009, Cornhusker Hotel.
5. Call for Speakers for ADVANCE-Nebraska's Speaker Series.

B. New Papers on Work-Life Balance, Gender Equity, The Pipeline

1. From Robert Drago: review of "Getting to 50/50" (50/50 effort in parenting)
2. Rejecting the Academic Fast Track; from *Inside Higher Education*
3. Rethinking Scientific Pedagogies: Sue Rosser (Ga Tech) and others weigh in on how teaching methods retain (or do not retain) women students.

C. Jobs

Mid-career faculty position: Close Professorship in Electrical Engineering at U-Wash; closing date Feb. 1.

D. Miscellaneous: Engineering Focus

1. Educating Engineers: Carnegie Foundation Report
2. Outreach Strategies from U-Wash to Recruit Female High and Middle School Girls.

A. ANNOUNCEMENTS

1. COACH WORKSHOP MARCH 2

Sign up now for the COACH workshop, March 2 (all day: this is worth making arrangements to cover your class[es] to attend). Topics are: the *Art of Strategic Performance* (this includes 'negotiation') and *Strategies for Leading Change*.

You must pre-register! Email advance2@unl.edu or call Jill Hochstein, 2-3304. **Deadline for registration is February 16.**

2. ADVANCE-NEBRASKA SPEAKERS, SPRING SEMESTER 2009

- a. **January 28, Wednesday**, ADVANCE-Nebraska Director **Mary Anne Holmes**: "*The Why and Hows of ADVANCE-Nebraska*" – co-sponsored with the Women's Leadership Coalition. Brown Bag Luncheon, registration not required. City Union; room posted on kiosks.

UNL received a \$3.8 million grant in September, 2008, from the National Science Foundation ADVANCE program to increase the number of women faculty in science, technology, engineering, and mathematics departments. Come and hear what the plans are, why UNL applied for this grant, and how UNL will benefit from it.

- b. **March 12**, Dr. Kimberly Espy, Associate Vice Chancellor, Office of Research: Paths to Success Luncheon (free). REGISTRATION REQUIRED so we'll have enough forks! City Union, room TBA.

Dr. Espy is on the faculty of the Department of Psychology at UNL. Her research focuses on identifying the antecedents of learning, attention, and behavioral disorders in medically at-risk populations, including those born prematurely, those exposed to substances of abuse during pregnancy, and those exposed to toxicants in their environment. In 2001, Dr. Espy received the Rita G. Rudel Award for Pediatric Neuropsychology and Developmental Cognitive Neuroscience. In 2005, she received the Early Career Award from Division 40 (Clinical Neuropsychology) of the American Psychological Association, and also was selected as a Fellow of the same division.

- c. **April 29**: Dr. Heidi Schellman, Northwestern University and Fermi Labs: Paths to Success Luncheon (free). REGISTRATION REQUIRED. Email advance2@unl.edu.

Professor of Physics at Northwestern University and a board member of the Fermi Lab, PhD, University of California at Berkeley, Alfred P. Sloan Fellow, Outstanding Junior Investigator, Department of Energy, Fellow of the American Physical Society. Free lunch! Registration is required (advance2@unl.edu). Come and hear how Dr. Schellman navigated a successful career in physics.

3. DR. TRACY FRANK, DEPARTMENT OF GEOSCIENCES

is this year's Nebraska Women in Science keynote speaker: "*Science as a career: A geologist's perspective*." Friday, February 20, Holiday Inn Downtown.

The 11th Annual Nebraska Women in Science Conference hosts junior- and senior-level high school girls from the region and introduces them to a variety of science, math, and technological career paths. <http://www.unl.edu/scimath/>

3. FEBRUARY FORUM, TUESDAY, FEBRUARY 10, 2009

Cornhusker Hotel. Dr. Kristi Ambroz, Director of Reagent Product Development & Manufacturing at LI-COR Biosciences of Lincoln will be the keynote speaker.

[February Forum](#), an annual event coordinated and hosted by the University of Nebraska–Lincoln's Center for Science, Mathematics and Computer Education, has been recognizing outstanding undergraduate women since 2005. Initially created as a symposium in 1977 by the Chapter of the Graduate Women in Science (GWIS), the forum has grown into a campus tradition to honor outstanding junior and senior women majoring in scientific fields. Her presentation will be: *How to get your dream job in science, when you don't know what that is!*

<http://scimath.unl.edu/csmce/febforum.php>

5. CALL FOR SPEAKERS FOR ADVANCE-NEBRASKA SPEAKER SERIES, 2009-10

ADVANCE-Nebraska will provide funding and arrange logistics for **your favorite high-profile woman scientist** to visit campus, give a disciplinary talk in your department, and an informal "Paths to Success" talk at our free luncheon series (well, not free for the speaker, who will 'sing for her lunch').

This is a great opportunity for you to bring in potential letter-writers for tenure and/or promotion, colleagues, great role models, dynamic disciplinary speakers. These folks have schedules that fill up fast, so let us know **by spring break** and we can begin to make arrangements for these visits for the next academic year. The speaker series runs the life of the grant, until 2013. Email advance2@unl.edu or call Jill Hochstein at 2-3304 and ask for **Paths to Success** funds.

IN ADDITION to the Paths to Success speakers, ADVANCE-Nebraska has funds to bring rising stars to UNL and showcase the campus. These visitors could become recruits to applicant pools for future positions (even those we are only dreaming of today). The aim of this program is to broaden the applicant pool by letting potential candidates see what a live-able town Lincoln is, and what a supportive campus UNL is. Email advance2@unl.edu or call Jill Hochstein at 2-3304 and ask for **Showcase Visit funds**.

B. NEW PAPERS ON WORK-LIFE BALANCE, GENDER EQUITY, THE PIPELINE

1. FROM ROBERT DRAGO: REVIEW OF "GETTING TO 50/50"

I just finished a new book called "Getting to 50/50" by Sharon Meers and Joanna Strober (2009, Bantam, \$16.32+shipping at amazon.com), and recommend it highly. Although we have excellent academic books on shared care couples (e.g., Risman, Deutsch), this book provides the first real 'how-to' guide to shared care. It helps that both of the authors have been through successful attempts to reach 50/50 with children in tow, and their knowledge of the literature is both broad and deep. But what really makes the book effective is that they interviewed hundreds of shared care couples, and asked for their advice.

Much of the book concerns the real and perceived barriers to achieving 50/50, with a lot of focus on that pivotal time when even the most egalitarian of couples tend to falter -- childbirth and infancy. But a lot of it also concerns the importance of constant negotiations both in the workplace and in the home. They also devote a fair amount of space to the issue of working mother (and father) guilt that Ellen Galinsky highlighted in *Ask the Children*, because they believe that guilt doesn't help much of anyone... And they also highlight something which makes incredible sense once you hear it: the men in these couples really care about the women's careers. If you know someone interested in 50/50, get them this book!

2. REJECTING THE ACADEMIC FAST TRACK, FROM *INSIDE HIGHER ED*:

Disturbing results from a survey conducted by Mary Ann Mason (author of *Do Babies Matter in Science?*; Dec 3 issue of ADVANCE E-news) and colleagues of 8300 doctoral students in the University of California system. They found that 84% of women and 74% of men are somewhat or very concerned about the family friendliness of their future employers. Only 46% of male students, and 29% of female students, believe that faculty jobs at research institutions are family-friendly. *The shift away from academic careers is even greater in the sciences.*

Role models make a difference on student perceptions: when there are women on the faculty with children, 46% of female doctoral students said that research institutions are family-friendly. But only 12% of female doctoral students felt that way when there were no or few women on the faculty with children.

Read the whole report: <http://www.aaup.org/AAUP/pubsres/academe/2009/JF/Feat/maso.htm>

The Article in *Inside Higher Ed*: <http://www.insidehighered.com/news/2009/01/15/family>

3. RETHINKING SCIENTIFIC PEDAGOGIES: GEORGIA TECH AND ROCHESTER IT WEIGH IN

Association of American Colleges and Universities, "On Campus with Women" website, features Sue Rosser of Georgia Tech and other authors who demonstrate new pedagogies in science and engineering classes that are increasing recruitment and retention of female students. A "civic engagement" component is key to several of these strategies. Read more at:

http://www.aacu.org/ocww/volume37_2/

C. JOBS

The Electrical Engineering Department at the University of Washington seeks an outstanding individual to fill the recently endowed **Donald W. and Ruth Mary Close Professorship in Electrical Engineering** focusing on the delivery and distribution of electric power.

THE IDEAL CANDIDATE will be a mid-career EE faculty in the field of Electric Power with an emphasis in one or more of the following areas:

- Sustainable energy systems
- Smart grids
- Microgrids
- Electrical energy storage
- Advanced automation (reliability and efficiency)
- Environmentally-based operation and optimization
- Renewable energy devices (solar, wind, tidal, etc.)

The candidate should have an interdisciplinary background and would be expected to interact with the new College of the Environment as well as other departments in the College of Engineering and other colleges in the University. It is anticipated that the appointment will be at the level of Associate or Full Professor with Tenure, commensurate with the applicant's qualifications.

UW HAS THE HIGHEST LEVEL of federal funding of all public universities, and the second highest among all universities in the nation. The Electrical Engineering Department currently has 36 tenure track faculty (28 men / 8 women). External research expenditures of the department in 2007-2008

were over \$13M (see www.ee.washington.edu). The department is committed to outstanding teaching, research, and service.

PLEASE SUBMIT YOUR RESUME, list of publications, statement of research and teaching interests and goals, and the names and addresses of at least five references on our website:

<http://www.ee.washington.edu/facsearch/>. Applications will be accepted until February 1, 2009, or until the position is filled. For any administrative issues related to the search, please contact Sarah Espe (assist_to_chair@ee.washington.edu).

THE UNIVERSITY OF WASHINGTON is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. The University of Washington is the recipient of a 2006 Alfred P. Sloan Award for Faculty Career Flexibility and a 2001 National Science Foundation ADVANCE Institutional Transformation Award to increase the advancement of women faculty in science, engineering, and mathematics (see www.engr.washington.edu/advance). The University of Washington is an Equal Opportunity, Affirmative Action Employer and is responsive to the needs of dual-career couples.

D. MISCELLANEOUS: ENGINEERING FOCUS

1. EDUCATING ENGINEERS

The Carnegie Foundation issued a new report by Sheri D. Sheppard, Kelly Macatangay, Anne Colby and Wm. M. Sullivan: *Educating Engineers: Designing for the Future of the Field*. These pedagogic reforms are expected to increase recruitment to and retention of women in engineering.

The authors begin with the premise that although engineering schools aim to prepare students for the profession, they are heavily influenced by academic traditions that do not always support the profession's needs. They recommend that professional schools, because they are responsible for the preparation of practitioners, should aim for an increasingly integrated approach to the formation of students' analytical reasoning, practical skills, and professional judgment.

Their study of U.S. undergraduate engineering education began with an overarching question: do the components of the undergraduate curriculum work together as cohesive, effective preparation for today's professional engineering practice?

- Where in their educational experience do students acquire and develop each dimension of professional expertise: engineering knowledge, skills of practice, and the understanding and commitment expected of today's professional engineer?
- How, if at all, do the traditional components of the engineering curriculum—engineering science, laboratory, and design courses—map onto these aspects of professional expertise?
- How is this learning accomplished, and who among faculty and staff is responsible for each of these dimensions? Who, if anyone, is charged with ensuring that the continuity necessary for the students' developmental trajectory is maintained?
- What counts as evidence that students are in fact moving toward competence in engineering knowledge, skills of practice, and understanding and commitment? What are the important markers of this progress, and how is such progress assessed?

Some of these strategies are summarized on the OCWW website "Rethinking Scientific Pedagogies", item B.3., above (http://www.aacu.org/ocww/volume37_2/)

Order the book: <http://www.carnegiefoundation.org/publications/pub.asp?key=43&subkey=770>

Executive Summary: http://www.carnegiefoundation.org/dynamic/publications/elibrary_pdf_769.pdf

2. OUTREACH STRATEGIES FROM U-WASH TO RECRUIT FEMALE HIGH AND MIDDLE SCHOOL GIRLS.

Based on the successful MIT Women's Initiative (<http://web.mit.edu/wi/>), University of Washington's College of Engineering has developed our own outreach program entitled the UW Women's Initiative (<http://uwwi.org>). With both programs, women Engineering students give presentations and lead hands-on activities about engineering to groups of high school and middle school girls.

With the support of a grant from the Engineering Information Foundation, the UW Women's Initiative has put together a set of web pages for other Colleges of Engineering to start their own student-run outreach program. It is located at: <http://www.engr.washington.edu/uwwi/>

Please feel free to explore these web pages. If you have any feedback, we'd love to hear it -- the contact address is uwwi.engr@gmail.com.

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