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BESS 12/15/09

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BESS NEWS
BIOSYSTEMS * ENGINEERING * SOIL SCIENCE

Vol. 2 No. 16
December 15, 2009
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TOP STORIES:

Oakley Scholarship Announced

Congratulations BESS Graduates!

Photos from BESS Holiday Party

Funding Opportunities

BESS | **Students** | **Extension**

UTIA | **CASNR** | **Research**

Faculty Profile

We are pleased to welcome **DR. FRED TOMPKINS**, Distinguished Professor. Dr. Tompkins joins BESS under a special appointment by which he will teach classes and assist with research efforts.

Dr. Tompkins is no stranger to the BESS family. He earned his B.S. (1971) and Ph.D. (1974)at UT and joined the faculty of the then-Department of Agricultural Engineering in 1974. Dr. Tompkins became full professor in 1984 and was later named as the W.S. Overton Distinguished Professor in Engineering.

He served as department head from 1991 to 1994. His area of research and scholarship has been in machine design and equipment performance enhancement, especially off-road vehicles and field-going implements He is author or co-author of approximately 150 journal articles, archived papers, conference proceedings and technical reports. He received five college or university-wide awards for excellence in teaching, including the Allen and Hoshall Outstanding Teaching Award in engineering and the UT Alumni Association Outstanding Teacher Award.

In 1994, Dr.Tompkins began his service in the College of Engineering as Associate Dean for Academic Affairs and Student Services, and later as Associate Dean for Administration, Graduate Education and Research. In December 2001 he was named Interim Dean of the College of Engineering.

In 2003, Dr.Tompkins was named interim executive director of the newly formed University of Tennessee Research Foundation (UTRF) which was established by UT's Board of Trustees as a non-profit corporation to commercialize UT research and technology. For the last six years, he served as president and CEO of UTRF. Although he has stepped down from that role, he will work for the Office of the Executive Vice President/ Vice President for Research and be responsible for managing specific projects for the UT system.

He will begin teaching classes in Biosystems Engineering during the spring semester 2010. We look forward to his contributions to the success our programs. Welcome back, Dr. Tompkins!

--Darla O'Neill (as excerpted from TN Today archives)

From the Department Head:

The Fall 2009 semester concluded with Commencement Exercises on December 13, which was preceded two days before by the Hooding Ceremony for those receiving graduate degrees. We congratulate all degree recipients, especially those receiving degrees from BESS programs. A list of BESS graduates as they appeared in the commencement program is listed elsewhere in this newsletter. Other recent events of note include the return of Dr. Fred Tompkins to BESS as a Distinguished Professor (see story), and the establishment of a new undergraduate scholarship. The Oakley Upper-Cumberland Community Improvement Scholarship (see ***press release***) was established through a gift from W&O Construction Company, Inc. and its president, R. Louis Oakley. This scholarship is intended to provide support to students in one of four technology concentrations within the Environmental and Soil Sciences B.S. program. These concentrations include the new Construction Technology and Off Road Vehicle Technology concentrations, which join the existing Agricultural Systems Technology and Land Surveying Technology concentrations to form a suite of science/technology curricula for which we expect to see substantial enrollment growth. We are grateful for this scholarship gift as it will help us build these new programs. As this is the final newsletter of the year, we would like to wish all our students, faculty, alumni and friends a happy new year!

--Eric

THE UNIVERSITY of TENNESSEE UT INSTITUTE of AGRICULTURE

BE THE BESS YOU CAN BE

Please submit items to Darla O'Neill doneill1@utk.edu; Archived issues post to departmental website

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Congratulations, Graduates!

Undergraduate Degrees, Fall Term 2009:
Bachelor of Science in Biosystems Engineering
- **William Michael Nichols** *of Oakfield, TN*

Bachelor of Science in Environmental and Soil Sciences
- **Alan Davis Hargraves, Jr**. *of Helena, AR*
- **Jessica Dianne Johnson** *of Knoxville, TN*
- **Wayne Gibbons McGowan, IV** *of Covington, TN*
- **Leah Denise Soro** *of Knoxville, TN*
- **Robert Lynn Stewart** *of Hendersonville, TN*
- **Courtne' Elizabeth Yetter** *of Chattanooga, TN*

Undergraduate Degrees, Summer Term 2009:
Bachelor of Science in Biosystems Engineering
- **Mitchell Dixon Groothuis** *of Chattanooga, TN*
- **Chase Lee Shaver** *of Pikeville, TN*

Bachelor of Science in Environmental and Soil Sciences
- **Jonathan Tyler Ellis** *of Chattanooga, TN*
- **Brian Philip Lester** *of Wartburg, TN*

Special Congratulations to a Friend of the Department:
- **Cecil Burg Woody** *of New Tazewell, TN*
  Bachelor of Arts

News Release from http://www.agriculture.utk.edu/news/releases/2009/0911Constr

New UT Scholarship Established by W&O Construction to Benefit Plateau Area Students

A new scholarship at the University of Tennessee will benefit students from the Upper-Cumberland region thanks to a gift from W&O Construction Company, Inc. and President R. Louis Oakley of Livingston, Tennessee. The company recently established a $25,000 scholarship endowment to support students studying engineering technology concentrations within the Environmental and Soil Science major in the UT College of Agricultural Sciences and Natural Resources.

The Oakley Upper-Cumberland Community Improvement Scholarship will support students from Overton, Putnam, Cumberland and surrounding counties with an interest in a career in construction, off-road vehicle technology, agricultural systems or land surveying. "We are excited to be able to invest in our young people from this region in a way that will also benefit the construction industry," Oakley said. "This is a great opportunity to partner with the UT Institute of Agriculture to educate our young folks in a way that can benefit our communities."

The UT Department of Biosystems Engineering and Soil Science has introduced the new Construction Technology and the Off-Road Vehicle concentrations to complement existing programs in Agricultural Systems and Land Surveying Technologies. All four concentrations make use of the same core curriculum, and all include rigorous coursework in math, science and technology. The Construction Technology concentration also leads to a minor in Business Administration.

According to Dr. Eric Drumm, department head of Biosystems Engineering and Soils Science, by combining the two new concentrations with the two existing engineering technology concentrations, the programs will be more prominent and visible to students looking for career options in science and technology, yet not wishing to pursue engineering degrees.

The new Construction Technology concentration will provide a degree option that can lead to construction management opportunities in areas such as residential, agricultural, commercial, paving and excavation construction, and fills a need that should grow rapidly as the construction industry begins to rebound.

Drumm said scholarship recipients will be encouraged to participate in summer internships within the industry so that students are better prepared and have practical experience upon graduation.

"The Oakley Scholarship comes at a good time because we are beginning to recruit new students to the program," Drumm said. "We are thankful for the support from Mr. Oakley and W&O Construction, because scholarship incentives help us attract students and grow this new program."

UT hopes to award the first Oakley Scholarship as early as next fall and seeks to raise more than $100,000 in additional scholarship support from other industry leaders in the area. Drumm said the department is also seeking support for lecturer and/or adjunct faculty members to teach in the engineering technology concentrations.

W&O Construction is headquartered in Livingston serving clients in all parts of Tennessee with commercial, industrial, water and waste water management, utility, and insurance restoration work since 1962.

Alumni Update:

Congratulations to Adrienne Roach, M.S. BsET 2006, and current Ph.D. candidate in Food Science & Technology, has placed first in the Manfred Kroger Graduate Paper Competition. Her abstract was selected from 60 entries. Read more here: http://foodscience.tennessee.edu/spotlight/view/?id=25

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Holiday Party

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2010 Environmental Studies and Sciences Meeting

The **Association of Environmental Studies and Sciences (AESS)** is an independent faculty-and-student-based professional association in higher education, designed to serve the needs of environmental scholars and scientists who value interdisciplinary approaches to research, teaching, and problem-solving. Founded in 2008, the Association seeks to provide its members with the latest environmental information and tools to create better courses, strengthen research, develop more satisfying careers, harness the power of a collective voice for the profession, and enjoy each other's company at national and regional meetings. NCSE has helped to found AESS and NCSE Senior Scientist David Blockstein is on the AESS Council.

A major aim of AESS is to encourage interdisciplinary understanding of environmental science, policy, management, ethics, history, and all of the other vital contributions of traditional disciplines. From its beginning, the Association has been envisioned as a community of environmental scholars and scientists, not a confederation of disciplines. Fundamental to its members' embrace of higher education is the notion that broad advances in environmental knowledge require disciplinary, interdisciplinary, and transdisciplinary approaches to research and learning.

On behalf of the AESS Program Committee and Site Arrangement Committee, we are pleased to announce the launch of the **AESS 2010 Conference website**, which is being hosted temporarily by Lewis and Clark College. The conference will be held at Lewis and Clark College, Portland OR, June 17-20. For information on the conference, please visit http://www.lclark.edu/college/programs/environmental_studies/aess2010/index.php.

The theme for our 2010 AESS Conference is ***Many Shades of Green***. The theme reflects the growing diversity of the environmental movement and the spread of "green" thinking into new and more varied venues. A bewildering profusion of green ideas are working their way through global politics and discourse as new groups enter into — and challenge – – the traditional environmental movement. The term "green" can itself mean many things: corporations may label themselves green by adopting energy conservation, "carbon-friendly" products, and recycling/reuse strategies, while individuals and organizations may embrace widely differing green principles, ranging from eco-consumerism to eco-spirituality to eco-anarchism. Debates over technology, population, politics, equity, and regulation increasingly divide not just pro- and anti-greens, but greens themselves. We welcome proposals that engage with this proliferation of difference, contention, and innovation in green rhetoric and practice.

The AESS Program Committee is trying something new this year. We would like to provide an opportunity for the ESS community to help shape the organization of the 2010 AESS Conference at Lewis and Clark. To accomplish this bottom-up approach, we are breaking up the call for sessions and presentations into a two-step process:

Step 1: Call for session proposals (deadline Feb 1, 2010)

Step 2: Call for presentation abstracts (deadline Mar 30, 2010)

We strongly encourage members of AESS, prior to the February 1 session proposal deadline, to participate in the discussion forum on session ideas (explained in detail on the conference website) to explore possibilities for sessions, including paper presentations, workshops, panel discussions, roundtable/facilitated discussions, and field trips.

If you are not already a member of AESS, please consider joining. It's inexpensive: Professional $30, current student $15, current student with AESS mentor $10. For more information about membership, please visit www.aess.info.

Please do not hesitate to contact us if you have any questions. We look forward to seeing you all in Portland next June!

All the best,

Phil Camill
Chair, AESS Program Committee
Rusack Associate Professor of Biology and Environmental Studies
Program Director, Environmental Studies
Bowdoin College, Brunswick ME
pcamill@bowdoin.edu

Jim Proctor
Chair, AESS Site Arrangements Committee
Professor and Director, Environmental Studies Program
Lewis & Clark College, Portland OR
jproctor@lclark.edu

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Farragut High School Science Academy

Opportunities are available to mentor exceptional high school science students from the Farragut High School Science Program. These students are generally in honors and advanced placement courses. They can come to campus during their last time block and work for 4 to 8 hours a week in UT labs on a project and thereby gain exposure to the application of science. This is a great opportunity to encourage academically talented students to continue their studies at UT.

For more details, contact Jane Skinner, skinner@k12tn.net, or Kristin Baksa, baksak@k12tn.net, (865) 671-7130.

A Brief History
Farragut HS Science Academy
(Est 2006)

Following The Knox County Schools' emphasis on academic rigor, relevance and education partnerships, Farragut High School's Science Academy was conceived in 2006. It has recently seen a dramatic increase not only in participation of students, but also in active collaboration with faculty and staff at the University of Tennessee, the Oak Ridge National Laboratory (ORNL), and the Knoxville Zoo. The academy began as a simple practical-experience program placing students in ORNL labs with the leadership of Lee Riedinger, Associate Laboratory Director. But in 2007, Riedinger and FHS staff took it to UT Knoxville where they found enthusiastic partners in Dr. Lynn Champion, College of Arts and Sciences, and Dr. Masood Parang, College of Engineering. In the summer term of 2007, it became a full-fledged student research pilot program sponsored by UT, ORNL, and the Knoxville Zoo. Each student is paired with a mentor who guides the student in developing a research plan, conducting research, preparing an abstract, research paper, poster, and participating in a poster session highlighting the student's work. Additionally students attend professional engineering/science meetings, participate in STEM competitions, and attend monthly lectures presented at FHS by recognized scientists.

This program is unique because it offers research opportunities with top scientists to high school students enhancing their education by exposing them to expertise, technology, and sophisticated instrumentation that just is not found in high schools. While still in its initial phases, the program seeks to eventually extend the opportunities enjoyed by Farragut students to students at other local high schools.

"This is a trail that the Farragut leadership, teachers and students are blazing for the rest of our high schools," said Dr. Jim McIntyre, superintendent of The Knox County Schools. "The coordination with UT and the program design work accomplished by the Farragut High School staff has been exceptional. These are exactly the types of partnerships and opportunities for students that we would like to see more widely available across the school system as we work to achieve our vision of excellence for all children"

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Learning in 140 - Character Bites

by David Zax, October, 2009 issue of ASEE Prism, http://www.asee.org/prism/. © Copyright 2009 American Society for Engineering Education 1818 N Street, N.W., Suite 600 Washington, DC 20036-2479 Web: www.asee.org
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http://cgi.stanford.edu/~dept-ctl/cgi-bin/tomprof/postings.php

Twitter can improve teacher-student communication, in and out of class.

In most respects, Prof. Natasha Neogi's aerospace engineering class is like any other. It's a large, hour-long lecture-style course at the University of Illinois, Urbana-Champaign. But at the halfway mark, Neogi's class takes on a new twist. She invites her students to log on to Twitter - the "micro-blogging" service that limits messages to 140 characters - and write in with questions. Neogi sifts through the "tweets," in Twitter-speak, addressing the most common sticking point at the end of class.

Once widely dismissed as an instrument of vanity, Twitter is now showing up in serious places. Its citizen-journalistic role after last June's Iranian election was much celebrated; in May, a NASA astronaut became the first to tweet from space ("From orbit: Launch was awesome!!"). Bit by bit, Twitter is finding a role in education.

Of course, plenty of professors - engineering and otherwise - have long been using Twitter. They tweet about interesting links they've come across; they complain about their flight delays; they keep us updated on their cats. But there are also professors who, like Neogi, have begun to bring Twitter into the lecture hall or seminar room. And not simply to write, "I'm teaching a class right now." Rather, they've moved beyond the tweet-as-status model to harness the organizational, aggregating, and social possibilities of the technology, recognizing it as a potent educational tool.

In the spring of 2008, well before Twitter acquired its current prominence, Scott McDonald and Cole Camplese of Pennsylvania State University at University Park co-taught a course called "Disruptive Technologies in Teaching and Learning." They decided to experiment with the relatively new social networking tool, instructing class members to carry on a Twitter conversation - "essentially asking students to pass notes during class," as the Chronicle of Higher Education put it. Soon, the professors found the Twitter feed had emerged as a rich "back channel" where students discussed what interested them or puzzled them. The professors, meanwhile, kept an eye on the feed, getting a read of what concepts needed further explication.

Gordon Snyder, who directs the National Center for Information and Communications Technologies at Springfield Technical Community College in Massachusetts, has also experimented with the back channel. He assigned his class a "hashtag", Twitter-parlance for label to include in your tweets to make them easily searchable (they begin with the hash mark #). Students could thereby keep tabs on their neighbor's notes and thoughts and even revisit them using Twitter's search engine after class.

He also has found Twitter useful for getting a read on a room. Professors are familiar with the inscrutable sight of a lecture hall full of mute students. Are they listening? Understanding? Many professors have adopted "clickers," polling devices used to quiz students on a topic recently covered or to gauge students' opinions when venturing into politically sensitive subject matter. Snyder, whose center is funded by the National Science Foundation, considers Twitter a "modern and much more effective" clicker.

Of course, skepticism in academia remains the norm ("You mean as part of a class? Instead of students just wasting time?" a Massachusetts Institute of Technology official responded when asked for her take on Twitter). But Twitter evangelists have ready answers for skeptics. Does it erase a necessary distance between professor and student, eroding professional authority? That depends on your view, says McDonald: If you think, "'Well, I'm the teacher, and people just need to listen to what I have to say'... then Twitter is not useful for you." Does Twitter distract students? "I see it as a way to keep students engaged," says Snyder. Besides, some argue, students often are already using these technologies in class; professors are simply co-opting a tool that would otherwise serve as a distraction. "If you can't beat 'em, might as well join 'em," sums up Kathy Schmidt, director of the Faculty Innovation Center for the College of Engineering at the University of Texas - Austin.

Still, Schmidt is the first to acknowledge that "sometimes turning our classroom into an experiment, per se, is risky business." Professors should carefully consider what Twitter contributes before bringing it in, she says: "The pedagogy has to drive the reason for using the technology."

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Continued:

Danger of 'Parallel Discussions'

Punya Mishra, associate professor of educational psychology and technology at Michigan State University, notes that - despite his title - there is "no such thing as an educational technology." Rather, "there are various technologies, and instructors need to repurpose them for their own needs." Last year, Mishra tried integrating a micro-blogging service similar to Twitter into a graduate seminar, but "I felt two parallel discussions were going on, but they didn't pull together productively at the end." He spent the week considering what went wrong and then designated a block of time near the end of class for students to catch up on the contents of the micro-blogging feed. Afterward, the class reconvened to continue a newly enriched discussion. With this bit of thoughtful tinkering, micro-blogging proved useful.

Mishra followed that experiment with a more ambitious one: using Twitter to join students from different continents. MSU is located in Lansing, Mich., but also offers a master's degree for students in Plymouth, England. Mishra's online "distance" course has content similar to the one in Michigan, so his local class and its British counterpart have recently been Twittering using a shared hashtag. He praises Twitter for "this ability to connect people... The sense of community can be very useful and powerful."

But just because Twitter has found success in some classrooms doesn't mean it's right for all engineering educators. After all, most of the experiments have thus far been led by professors of educational technology or social media itself - hardly a neutral or representative sample.

One common concern is that Twitter currently isn't equipped to deal with engineering's lingua franca: mathematics. "It's hard to type funny symbols in Twitter," says Michael Webber, a UT Austin engineering professor. Though an advocate for new classroom technologies, he doesn't foresee using Twitter in courses heavy in equations and scientific formulas. "There's something organic about a concept flowing from your brain to your hand to the board, and from the board to their hand and their brain," he says. "Something about that process seems very valuable."

Should engineering educators shun Twitter as a teaching tool, there are still other uses. MIT's Nextlab, for one, has become a model of innovative Twitter use. By coupling micro-messaging with mapping technology, Nextlab has enabled Indian villagers to warn one other about floods and helped citizens of Caracas, Venezuela, to document crimes, locate them on a map, and share that information immediately with others.

If such innovative applications fail to interest engineers, Webber suggests that Twitter's social networking still might come in handy. For some tech-savvy but shy engineers, Webber notes wryly, it's "easier to get a date through e-mail or Twitter rather than normal mechanisms that humanity has developed over millennia."

* * * * * * *

NOTE: Anyone can SUBSCRIBE to the Tomorrows-Professor Mailing List by going to:
https://mailman.stanford.edu/mailman/listinfo/tomorrows-professor
--++**==--++**==--++**==--++**==--++**==--++**==--++**==
tomorrows-professor mailing list
tomorrows-professor@lists.stanford.edu
https://mailman.stanford.edu/mailman/listinfo/tomorrows-professor

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ASABE Career Fair Chair

This year the Agricultural Equipment Technology Conference (AETC) will be held in conjunction with the AEM conference in Orlando, Florida. On Monday, January 11th there will be a career fair session at the conference. All of the AEM participating companies have been invited to participate in the career fair. You can register for the conference on line at http://www.asabe.org/

Calling All Phi Beta Kappa Members

Jeff Kovac, President of the UT Knoxville Chapter of Phi Beta Kappa Society, is trying to collect names of all faculty and staff who are members of the Society so that their accomplishment can be recognized. Plans include developing a new web site for the Chapter which will include a roster of all faculty and staff members and their department or unit. The recent announcements on Tennessee Today have had a good response, but have probably not identified everyone. Therefore, we enlist your help in finding members of Phi Beta Kappa in your unit. Please have them complete and submit the on-line form at http://www.utk.edu/go/29. Questions? Contact Jeff Kovac at jkovac@utk.edu

Operation Wallacea - *Scientific Conservation Expeditions*

Operation Wallacea is a series of biological, social and conservation management research programs that operate in remote locations across the world including *Indonesia*, *South Africa, Mozambique, Peru, Honduras, Egypt, Cuba and Madagascar.* These expeditions are designed with specific wildlife conservation aims in mind; from identifying areas needing protection, through to implementing and assessing conservation management plans. What is different about Operation Wallacea is that large teams of university academics who are specialists in various aspects of biodiversity or social and economic studies are concentrated at the target study sites giving volunteers the opportunity of working on a range of projects. These large survey teams of academics and volunteers that are funded independently of normal academic sources have enabled large temporal and spatial biodiversity and socio-economic data sets to be produced, and provide information to help with organizing effective conservation management programs. Through our affiliation with St. Andrews University, students have the potential to earn 3-4 credits by completing a 4 week expedition. www.opwall.com.

IIASA Young Scientists Summer Program 2010

Summer Fellowship in Austria for Graduate Students in
Natural and Social Sciences, Math, Policy and Engineering

Each summer, the International Institute for Applied Systems Analysis (IIASA), located in Schloss Laxenburg near Vienna, Austria, hosts a selected group of graduate students, primarily doctoral, from around the world in its Young Scientists Summer Program (YSSP). These students work closely with IIASA's senior scientists on projects within the Institute's 3 theme areas. **Funding is available** to cover travel to IIASA and a modest living allowance.

APPLICATIONS DEADLINE: 18 JAN 2010; 2010 YSSP DATES: 1 JUNE - 27 AUGUST

WHAT IS IIASA AND WHAT ARE ITS PROGRAM AREAS?

IIASA is an international institution, supported by the U.S. and 15 other governments, engaged in scientific research aimed at providing policy insight on issues of regional and global importance in the following areas:

Energy and Technology

· Energy · New Technologies · Dynamic Systems · Integrated Modeling Environment

Natural Resources and Environment

· Land Use and Agriculture · Forestry · Evolution and Ecology · Atmospheric Pollution & Econ. Devt.
· Greenhouse Gas Initiative

Population and Society

· World Population · Risk and Vulnerability · International Negotiation · Population and Climate Change
· Health and Global Change Initiative

Detailed information about each program is on the IIASA Website: http://www.iiasa.ac.at/
An on-line application form, along with more information, is at http://www.iiasa.ac.at/yssp/register/
General Questions: Tanja Huber, YSSP Coordinator ysspsupport@iiasa.ac.at
U.S. contact: Margaret Goud Collins, Program Director for the U.S. Committee for IIASA
National Academy of Sciences mcollins@nas.edu

Northwestern University announces Master of Biotechnology Program

The Northwestern University Master of Biotechnology Program (www.MBP.northwestern.edu) provides interdisciplinary training to biologists, chemists, and engineers for careers in the biotechnology and pharmaceutical industries. Because of its extensive research component, the MBP is also appropriate for students who may wish to subsequently pursue a PhD or MD. The program can be completed in only 15 months and provides an opportunity for optional paid industrial internships (extends program to 21 months).

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Posted from: TOMORROW'S PROFESSOR(sm) eMAIL NEWSLETTER
http://cgi.stanford.edu/~dept-ctl/cgi-bin/tomprof/postings.php

"…below is a short piece on the development of a new book, Demystifying Dissertation Writing: A Streamlined Process from Choice of Topic to Final text, by Peg Boyle Single, Ph.D. Published by Stylus Publishing, LLC 22883 Quicksilver Drive, Sterling, Virginia, 20166-2102. ©2010 Peg Boyle Single."

Demystifying Dissertation Writing

by Peg Boyle Single, Ph.D.

A win-win. That is what I am proposing: a win-win. Far too many doctoral students leave graduate programs without completing their dissertations. Latest estimates put the number at just under 50%, with the humanities and the social sciences having higher attrition rates than the STEM (science, technology, engineering, and mathematics) fields. Faculty members are juggling jobs already overflowing with teaching, scholarship, research, service, and advising. And at a time when doctoral students may be most in need of support from and access to dissertation advisers and when the camaraderie of courses has passed, newly graduated Ph.D.s reported that their advisers were least available to them during the dissertation preparation and dissertation defense phases. So what is the solution? Or at least a solution?

I propose that all doctoral programs offer structured writing seminars. I do not mean research seminars or pro-seminars, where faculty members present their research. Although these are great professional development activities, they do not directly help students write and finish a dissertation. Nor am I talking about seminars focused on research or methodology, where students can discuss and conduct their dissertation research as part of the seminar. I am talking about seminars that focus on the writing process. On how to take useful notes, to prepare functional outlines that include references, to sit down every day and put fingers to the keyboard, to overcome writer's block, to revise adequately, and to know when to stop. I am talking about seminars that teach habits of fluent writing.

When I was a graduate student, I excelled in my courses. I was required to take two years of grueling coursework on psychological theories, research methodologies, and statistical methods. Although I excelled in my courses, I was still at risk for being ABD (all-but-dissertation) because I had no idea how to write a 100+ page manuscript about a self-directed research project. I could pull off writing course-length papers, but the dissertation was a whole different matter.

I was fortunate in that I met Robert Boice, an expert on academic writing and faculty development, and he agreed to facilitate a writing seminar for me and a group of graduate students. He also agreed to advise one last doctoral student before he retired, and that last doctoral student was me. Through him, I learned how to take notes in a way where I kept the purpose in mind, that is, using and citing the research to support my argument; I learned how to write in what he called "brief daily sessions" and give up my practice of writing only when I had ridiculously large blocks of time (and often an impending deadline); I learned how to turn off my internal critic and overcome my penchant for procrastination. Had I not met him, I may have completed my dissertation, but I truly fear that I may not have.

Because of my experience, I have spent the past fifteen years offering writing workshops and seminars to doctoral students and new faculty members and provided writing coaching to quite a number of academics. While teaching a dissertation writing seminar at the University of Vermont, I tried various writing books as required reading. Many of them are very good. But none of them served my purpose for the course. I wanted a book that emphasized the importance of working within a group setting and of sharing outlines and drafts, encouragement and accountability. So, I wrote it. Or at least I wrote outlines for each class. Then, when I taught the seminar the next year, I expanded and revised the outlines, and revised them again the following year. Before I realized it, I had written a book that could serve as the central text for a dissertation writing or proposal writing seminar or could be used by a group of students who informally met to support each other as they wrote their dissertations.

My book, *Demystifying Dissertation Writing: A Streamlined Process from Choice of Topic to Final Text* is practical, motivational, and yes, even at times comical. I address the nuts-and-bolts of writing a dissertation. I write at length about the importance of prewriting and how prewriting is the best antidote for writer's block. I provide explicit guides on how to use bibliographic programs to take useful notes and then sort and play around with the notes as you organize your dissertation. The book is focused on students in the humanities and social sciences, not because doctoral students in the STEM fields couldn't find a book like this useful, but because the context of working on the dissertation is different. Often students in the STEM fields have ready-made social support in the forms of more advanced doctoral students and post-docs who work in their lab. Also, advisers may be more available as they have a vested interest in and an investment in (often in the form of grant support) the research their students are conducting since often the students are working on one aspect of a STEM adviser's program of research. While this situation does occur in the humanities and social sciences, it is far less common.

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Continued…Demystifying Dissertation Writing

by Peg Boyle Single, Ph.D.

In Demystifying Dissertation Writing, not only do I teach writing techniques and habits of fluent writing, I also provide tips to doctoral students on how to work with their doctoral advisers. Among other suggestions, I coach them on how to prepare for meetings with advisers and how to use their advisers' time wisely. For instance, I suggest that when students submit either a chapter or their whole dissertation to their advisers for review, they also include an outline of their whole dissertation. I write:

By including the outline, you provide your adviser with a quick refresher on your project. It will also provide him or her with an efficient way to assess your progress. Remember that you are working on one dissertation while your dissertation adviser may be advising numerous students, along with working on his or her own writing projects, teaching courses, presenting at conferences, and serving on committees. Make it as easy as possible for your dissertation adviser to provide you with useful feedback and to think you are making great progress.

When I taught my seminar, the students got a "win." While I did not research this rigorously, I do know that the students who took my course tended to graduate six months to a year prior to the members of their cohort who did not take a structured writing course. Plus, I worked with many students who had been unengaged with their dissertations for a few years and they admitted they would have remained ABD had they not taken a structured writing seminar. Since I have been in graduate school, many more programs are offering writing seminars, and for this I am thrilled. And from exchanging anecdotal evidence, many of the faculty members in these programs state the same thing: The students finish quicker (that is, with reduced time-to-degrees) and more of them complete their degrees (that is, with reduced attrition rates).

Along with the students, the faculty members get a "win." As I mentioned earlier, faculty members have plenty on their plates. The demands of an academic job only seem to be increasing; especially during the current economic downturn, the external resources and supports seem to be decreasing. The many faculty members that I know really enjoy advising doctoral students. They find it stimulating and fun to interact with doctoral students on new projects and research. Although, many of them have confided in me that they just don't know what to do when they have a student who struggles with the writing process and misses writing deadlines, as many doctoral students do. So, when I started teaching my dissertation writing seminar at UVM, I was pleasantly surprised when the faculty members who were advising doctoral students made a point of contacting me to thank me for offering the seminar. They told me how much it was helping their students. They also shared that they were freed up to provide advice and direction on the dissertation topic and the methodology without also having to be a writing coach.

I would say that the faculty members who lead a writing seminar get an even bigger win. I wrote my book to help students with their writing and to facilitate the offering of such seminars. You can develop a seminar around the ten chapters in the book. Plus, if you decide to teach a dissertation writing seminar, I can assure you that it will be one of your favorite courses. The students are highly motivated to make progress on their dissertations. You get to learn from students passionate about their dissertation topics. They learn from one another and you will get to learn from them. The nature of the course seems to foster a spirit of collegiality and shared mission, with plenty of opportunities for good-natured ribbing and comic relief.

Ah yes, and the university benefits. Students are becoming increasingly savvy about choosing graduate programs. In addition, organizations are encouraging programs to publish time-to-degrees and attrition/completion rates. While I have never seen a research project addressing the outcomes associated with programs offering structured writing seminars (hum, a possible dissertation topic??), the anecdotal evidence weights heavily toward showing that students graduate more quickly and more of them graduate. So the university gains a "win" also. I am hoping that more doctoral programs will begin sponsoring dissertation writing seminars. Eventually, I am hoping that every program offers such a seminar. So, I guess I don't see it as a win-win after all. Rather I view it as a win-win-win for the students, the faculty members, and the university.

References

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Jaschik, S. (2007, July 13). Why and when Ph.D. students finish. Inside Higher Education. Retrieved from http://www.insidehighered.com/news/2007/07/17/phd.

Funding Opportunities

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Five-Star Restoration Matching Grants Program for Habitat Restoration Projects

The National Fish and Wildlife Foundation (NFWF) isaccepting applications for the Five-Star Restoration Matching Grants Program, which seeks to fund community-based wetland, riparian and coastal habitat restoration projects throughout the U.S.

A collaborative partnership of the NFWF, the National Association of Counties, the Wildlife Habitat Council, the U.S. Environmental Protection Agency, and corporate partners the Southern Company and Pacific Gas and Electric Company has made this opportunity possible. Accordingly, the partnership seeks applicants who work within a diverse collaboration of partners on their proposed projects as well.

Grants range from $10,000 to $40,000 and are available for both non-profit organizations and government entities.

The application deadline is February 11, 2010.

Click here to view additional information on NFWF's website (http://www.nfwf.org/AM/Template.cfm?Section=Charter_Programs_List&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=30&ContentID=14123).

Broadening Participation Research Initiation Grants in Engineering (BRIGE)

http://www.nsf.gov/pubs/2010/nsf10509/nsf10509.htm

NSF 10-509; *Replaces Document(s):* NSF 08-606

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time): February 25, 2010

The Directorate for Engineering (ENG) at the National Science Foundation offers a research initiation grant funding opportunity with the goal of broadening participation to all engineers including members from underrepresented groups and persons with disabilities in the engineering disciplines.

These grants are intended to increase the diversity of researchers in engineering disciplines to initiate research programs early in their careers, including those from underrepresented groups, engineers at minority serving institutions, and persons with disabilities.

By providing these funding opportunities, ENG intends to further broaden participation of engineering researchers who share NSF's commitment to diversity in the following ways:

Expand the population of role models who will interact with an increasingly diverse student population, the workforce of the future.

Increase the number of engineering researchers at minority serving institutions actively and competitively engaged in research as independent investigators, thereby creating new research opportunities for students from underrepresented groups and persons with disabilities.

Fund engineering research projects that use innovative ways to attract and retain members of underrepresented groups and persons with disabilities to careers in engineering.

Awards are for 24 months and are limited to a maximum of $175,000 total costs (direct plus indirect). Principal Investigators must be U.S. citizens or lawfully admitted U.S. permanent residents at the time of application; visa-holders are not eligible.

NSF PD-10-1491: Biotechnology, Biochemical, and Biomass Engineering (BBBE)

The Division of Chemical, Bioengineering, Environmental and Transport Systems, National Science Foundation, is soliciting applications for the Biotechnology, Biochemical, and Biomass Engineering (BBBE) program. This program deals with fundamental problems involved in the processing and manufacturing of products of economic importance by effectively utilizing renewable resources of biological origin and bioinformatics originating from genomic and proteomic information.

The BBBE program emphasizes basic engineering and biological research that advances the fundamental knowledge base that contributes to a better understanding of cellular and biomolecular processes (*in vivo*, *in vitro*, and/or *ex vivo*) and eventually to the development of generic enabling technology and practical application.

Quantitative assessments of bioprocesses and their rates at the levels of gene regulation and expression, signal transduction pathways, posttranslational protein processing, enzymes in reaction systems, metabolic pathways, cells and tissues in cultivation, and biological systems including animal, plant, microbial and insect cells, etc. are considered vital to the successful research projects in the BBBE program.

For detailed information about this opportunity please see the program description
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501024&org=NSF&sel_org=NSF&from=fund

Deadline for Proposal Submission to Agency: 3/3/2010

Extension News

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Journal of Extension Opportunities:

The *Journal of Extension* is a peer reviewed, professional journal that offers a publication venue to Extension faculty and staff. The Journal also seeks reviewers from the broad variety of Extension disciplines who can provide a quality review of submissions.

Joseph Donaldson serves as the UT liaison to the Journal. Below is the latest issue of the *Journal Extension* Report:

Journal of Extension Report

December 7, 2009

JOE is…

- A rigorous, high-quality refereed journal
  - Submissions are **double-blind reviewed** by one to three of 77 well-qualified peer reviewers
  - The five-year average **acceptance rate** is currently **32.4 percent**
- **Article submission has grown** over the past decade. In 1999 there were 144 submissions; in 2008, there were 279
- **Written, reviewed, and edited by Extension professionals** who want to share their successful educational practices, research results, scholarly opinions, resources, and challenges

JOE provides Extension professionals a…

- A place **to publish intellectual and creative work** that is validated by peers and communicated
- Forum for **emerging and contemporary issues** affecting Extension education
- Knowledge bank of peers' **best practices**
- Place to **learn about** the Extension **profession**
- **Clearinghouse of ideas** for tackling new assignments
- **Literature resource** for project ideas and grant proposals
- Mechanism for **sharing knowledge, experience, and "lessons learned"**

Visit JOE's redesigned Web site at www.joe.org...

- Over **2 million visitors** from around the world come to the Web site each year to read *JOE*, find out more about it, and learn how to write articles for refereed journals like *JOE*
- Many readers are **loyal subscribers**, and others discover the wealth of information available through Google, Yahoo, and other **search engines**
- The **reviews on the redesigned site** have been **very positive**: "KUDOS on the new format! Great job. Much more readable and navigable, and the articles print out much more cleanly."

JOE needs peer reviewers…

- Who represent Extension professionals from **different parts of the country** with backgrounds in a **variety of subject matters**
- Who are willing to **validate and support** Extension professionals' **scholarly work** through a critical and exacting review
- Who have **experience as published authors** and who have **breadth as well as depth of expertise**
- Who are ready and able to meet the standards and expectations outlined in ***JOE* FAQ #8** at http://www.joe.org/about-faqs.php#Q8

AgResearch News

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APLU Grant Reviewer Opportunities and National Program Leaders:

Opportunities for experience on review panels are available with the Association of Public and Land-grant Universities (APLU). If you'd like to be nominated to serve as a reviewer on a panel, please see Eric Drumm.

"Grant reviewers are selected from Land Grant faculties and their travel and per diem expenses are covered, as well as a small honorium. This sort of experience is an excellent professional development opportunity for new faculty, as it allows them to view and participate in the process, and in turn, for them to make their applications more competitive. If you have any questions, please feel free to contact me" -- *Wendy Fink*, Assistant Director, Food, Agriculture, and Natural Resources, APLU, (202) 478-6021 wfink@aplu.org; www.aplu.org

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UTIA News

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2010 Closing Schedule

Friday, January 1 - **New Year's Day**

Monday, January 18 - **Martin Luther King, Jr. Day**

Friday, April 2 - **Spring Holiday**

Monday, May 31 - **Memorial Day**

Monday, July 5 - **Independence Day**

Monday, September 6 - **Labor Day**

Thursday and Friday, November 25 and 26 - **Thanksgiving**

Friday, December 24 through Thursday, December 30 - **Winter Holiday**

Friday, December 31 - **New Year's Day**

The University of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services. All qualified applicants will receive equal consideration for employment without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, or covered veteran status.