

From the Department Head...

The third week in February was National Engineers Week, which is among the oldest of America's professional outreach efforts to increase understanding and interest in engineering and technology careers and improve diversity in the future engineering workforce. It was begun 1951 by the National Society of Professional Engineers (NSPE), and is now sponsored by a formal coalition of more than 100 professional societies, major corporations and government agencies.

One of our Alumni, **BRADY LEWIS** ([see story here](#)) was selected as a one of the "New Faces of Engineering" who are young engineers who have shown outstanding ability and promise. He was spotlighted in USA TODAY as well as the National Engineers Week web blitz. Please let us know of significant events in your lives or the lives of your former classmates such that we can share it with our friends and alumni. Dr. Willie Hart was the first to find Brady highlighted in USA TODAY.

Congratulations to Brady!

---Eric Drumm

Staff Profile



Meet David R. Smith, Research Associate II

David Smith has been part of BESS since early 2001. He has a degree in Electrical Engineering from UT and an Associates Degree from Nashville State Technical Institute.

Along with the ability to work magic with many electronic devices (including recalcitrant fax machines and printers), David's strengths include excellent customer service talents. While his current "customers" are fellow co-workers and BESS students, David takes pride in assisting anyone needing his help. Primarily, David supports the Sensors & Controls Group as well as graduate and undergraduate students with electrical engineering efforts, including circuit design, testing, fabrication and deployment.

Some favorite projects have included work on Al Womac's boom sprayer electronics, as well as a project for Fabio Miranda, who received his PhD in 2003. It was a proprietary auto-irrigation project for resource conservation that Fabio was able to take back to Brazil.

One of David's most often used pieces of equipment is an Oscilloscope (pictured above), which is an instrument that measures properties of electronic circuits. This assists him in designing and troubleshooting circuits for sensors, controls, motors, and other electronic systems. After design and initial prototyping, a "schematic capture and routing" program is employed to create a series of CAD/CAM files which are used to fabricate the actual circuit boards. David has a "board machine" which can take this type of file and create/print a circuit board.

Currently, David is working on a Biosystems Engineering Senior Design project developing an auto Roll Over Protection System (ROPS). The circuit will control motors and actuators which will extend & retract the ROPS on a tractor, based on the students' criteria.

David enjoys working in the University system more than in previous industry jobs because he likes the intellectual environment, the larger variety of projects to work on, and the bonus of having good people to work with as colleagues.

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BESS ALUM BRADY LEWIS RECOGNIZED BY NATIONAL ENGINEERS WEEK FOUNDATION

National Engineers Week Foundation has presented the New Faces of Engineering, and **BRADY LEWIS**, a UT Biosystems Engineering graduate, is one of 14 engineers from across the country recognized by the Foundation this year.

The Foundation's announcement reads "Today's engineers are working to solve issues on a global scale. They dream big and love what they do... The New Faces of Engineering program highlights the interesting and unique work of young engineers and the resulting impact on society. Young engineers two to five years out of school are the focus of this recognition program." Brady was nominated for this recognition by the American Society of Agricultural and Biological Engineers (ASABE).

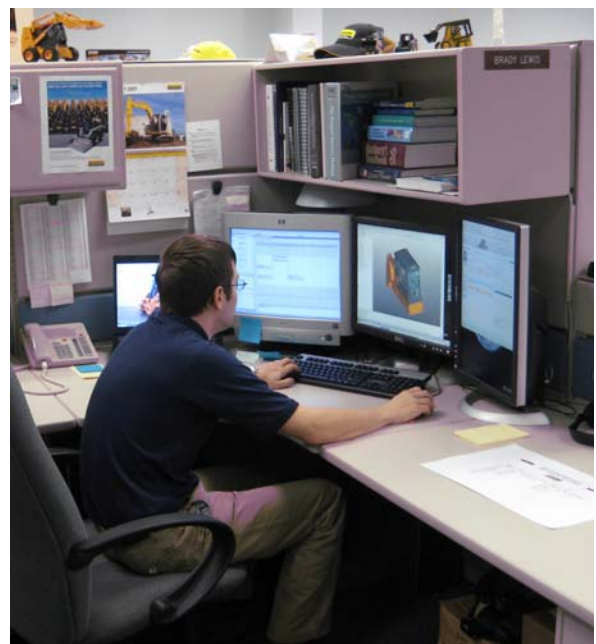
Brady came to UT from Tipton County, TN. He graduated Summa Cum Laude with a BS in Biosystems Engineering in May of 2005, and went on to earn an MBA from Southwestern College – Winfield KS. He is employed by Case/New Holland America in Wichita, KS. After working in several areas as part of a training program, Brady is currently part of the new product engineering group. He is also still active in ASABE, in the Traction and Tractive Effort technical committee.

During his tenure at UT, Brady won the Freshman Marlay A. Sharpe Award, took first place in the 15th Annual Collegiate Agricultural Discussion Meet, participated in the Honors Program, and was active in the UT student chapter of ASAE (now called ASABE). In Brady's senior year at UT, he was selected from members of the national chapters to serve as the President of the ASAE International Council of Preprofessionals. Fellow classmates knew Brady as a good friend, quick to learn, and always willing to help explain difficult lessons to classmates.

We are proud of Brady, and congratulate him on this accomplishment. It is sure to be only one of many to come.

The full announcement for Brady can be read on line at:

<http://www.eweek.org/site/Engineers/newfaces2009/lewis.shtml>



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Letting Scientists Off the Leash By [Stephen Quake](#) (Stanford University)

I thought I would start this blog by describing what life is like for a **scientist at a modern research university**, and the more general consequences for science and creativity.

I spend much of my time teaching, although only a small fraction of that is in the classroom. The majority of my teaching is with the **graduate students and postdocs** who have joined my group to learn hands-on science the model to keep in mind is apprenticeship, like in a medieval guild. We work together to advance the frontiers of knowledge, and I try to help them develop intellectual independence and a sense for how to develop their own creative research program.

This talented group of people are the actual hands in the lab doing experiments (it has unfortunately been a while since I have had the time to do experiments with my own hands; typically these days I am more involved in helping debug problems and analyze data, and writing up the results - and writing grants, of course).

Where does the money come from to pay for our science? Mostly from the federal government your tax dollars at work and non-profit foundations. Income from grants written by professors is the single largest contribution to the Stanford University budget (the second largest is endowment income, and student tuition is a distant third). Stanford has an enormous endowment (\$17 billion before the market crash) but applies it in a heavily leveraged manner in other words, they tend to use it to prime the pump and not to support ongoing research programs.

When a university hires a professor, they typically agree to provide a start-up package to support that professor's research over the first few years, after which the professor must seek external funding. This funding is needed to buy research supplies, pay stipends and tuition for graduate students, and even to support the salary of the faculty member. In fact, the university rarely pays the full salary of the professor depending on the department, the professor must find between 25 percent and 75 percent of his or her salary from outside grants.

It strikes me as one of the ironies of modern life that professorial faculty, who by and large lean to the left politically, accept such a brutal free-market approach to their livelihood. If they can't raise grants to support their research every year, they won't get paid. So not only do they have to worry about publish or perish, it's also funding or famine, in the very real sense that without a grant there might not be food on the family dinner table!

It's almost like a small business each faculty member is essentially running an enterprise for which he or she must find revenue (grants), manage finances, balance the books and pay expenses like salaries, tuition, rent and even taxes to the university for the space used.

Such a system does not come without its own perils. It is not so easy to ask our young scientists to think out of the box when a significant portion of their salary (and mortgage payments) depends on guaranteeing a steady source of funding. Consequently, professors become highly attuned to the institutional priorities of various funding agencies often at a cost to their own creativity and desired research directions.

Science at its most interesting is provocative, surprising, counter-intuitive and difficult to plan and those are very difficult values to institutionalize in an organization or bureaucracy of any size. I have seen my own grant proposals get chewed up and rejected with comments like "typically bold, but wildly ambitious," and wondered why it is wrong to be ambitious in one's research but perhaps that is a conclusion fully consistent with science by committee.

Fortunately, at key points in my career I lucked into special awards when conventional funding was not available. These awards from the David and Lucile Packard Foundation, the National Institutes of Health and the Howard Hughes Medical Institute - all represented turning points in that they allowed me to pursue ideas that were rejected as too crazy by the ordinary grant process. These include using discoveries from my basic research in single molecule biophysics to develop a new kind of DNA sequencer, plunging into the world of prenatal diagnostics by inventing a non-invasive alternative to amniocentesis and inventing microfluidic plumbing devices for biological applications as diverse as protein crystallography and single cell analysis.

So it is working out O.K. for me for now but there are many more creative scientists out there than there are special awards. In economic terms, I worry about the "opportunity cost" not only of the ideas not pursued and discoveries not made, but also of the time spent trying to convince very conservative review panels to fund one's research each minute spent writing or administering grants is a minute that wasn't spent thinking deep thoughts about the frontiers of knowledge.

You may have noticed that one of my lifelines actually came from the N.I.H. an agency not known for taking risks. I could write pages about the last presidential administration's disastrous approach to science. However, for whatever reason (and I suspect it was dumb luck: the exception that proves the rule) George W. Bush appointed an N.I.H. director who was both visionary and an adept leader Elias Zerhouni. Dr. Zerhouni changed the process for awarding grants, which had become inbred and conservative. Among other steps, he created a series of special awards for "Pioneers" and "Innovators" to fund highly risky research, and it is one of these that I was the recipient of.

As we think about how to heed President Obama's call to "put science back in its rightful place," I wonder if this should also be the time to rethink the basic foundations of how science is funded. Could we stimulate more discovery and creativity if more scientists had the security of their own salary and a long-term commitment to a minimal level of research support? Would this encourage risk-taking and lead to an overall improvement in the quality of science?

As we consider the monumental challenges facing our generation **climate change, energy needs and health care** and look to science for solutions, it would behoove us to remember that it is almost impossible to predict where the next great discoveries will be made and thus we should invest broadly and let scientists off their leashes.

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*Though UT is still in the process of evaluating joining AG*IDEA, it's worth noting for the faculty that the consortium exists. Their web site has information about the programs below:*

CALL FOR PROPOSALS FOR FACULTY TRAVEL FOR AG*IDEA PLANNING GRANTS

The Agriculture Interactive Distance Education Alliance (AG*IDEA) was formed at the 2008 NASULGC meetings in Washington, DC, and is an affiliate of Great Plains IDEA. Through AG*IDEA, member institutions from across the United States will be able to participate in distance education programs and/or courses in agricultural and related sciences. There are currently 28 universities that are members of AG*IDEA or are in the process of becoming member institutions (www.agidea.org).

Funds from a USDA Challenge grant have been earmarked to support program development. The expectation is that faculty will collaborate with colleagues at other member institutions to develop collaborative academic programs. With this in mind, faculty at participating institutions are invited to apply for funds for faculty groups to travel and plan academic programs to offer through AG*IDEA. Up to \$1,000 in travel funds will be provided for each faculty member for teams including up to 8 faculty members. Faculty can be from any institution that is a member of AG*IDEA or is in the process of joining.

A short proposal (up to 3 pages) should be submitted that includes the following:

- Name of academic program being planned
- Reasons that this program would benefit by being offered through Ag*IDEA
- List of collaborating faculty and their institutions
- Dates of travel and destination of meeting
- Preliminary plans for the program.

In addition, emails from collaborating faculty expressing their participation and support of the project should be attached. Proposals should be electronically submitted to Jean Bertrand (jeanbert@uga.edu). Travel grants will be available on a first-come first-serve basis. Proposals submitted prior to **September 1, 2009** will receive priority. Complete details of the procedures for establishing new academic programs through AG*IDEA can be found in the Great Plains Policy and Procedures Manual, Appendix B.8 (<http://www.gpidea.org/alliance/ResourceCenter/P&PManual.pdf>).

Agricultural Interactive Distance Education Alliance (AG*IDEA)

An Affiliate of the Great Plains Interactive Distance Education Alliance (Great Plains IDEA)

The Agricultural Interactive Distance Education Alliance (AG*IDEA) was formalized on March 6, 2008. The Agricultural Interactive Distance Education Alliance began when the Colleges of Agriculture at Iowa State University, Kansas State University, University of Missouri and the University of Nebraska began working together on collaborative programs and affiliated with the Great Plains Interactive Distance Education Alliance (Great Plains IDEA) in November 2006.

Under the leadership of Dr. Paul Vaughn, University of Missouri, the vision for moving the four-state alliance to a national alliance was approved by the Great Plains IDEA Board of Directors in November 2007. Dr. Vaughn met with peers from other institutions to develop the plans to create AG*IDEA which included developing the bylaws and coordinating and facilitating meetings. Dr. Vaughn chaired a question/answer panel with Ruth Williams and Deb Wood from the Great Plains IDEA at the meeting held on March 6, 2008. Following the discussion, it was voted by those in attendance to formalize AG*IDEA. The bylaws were approved giving each institution signing the "Intent to Join" form a representative to the AG*IDEA Board of Directors and creating the AG*IDEA Executive Committee composed of the Chair, Vice Chair/Chair Elect, Secretary, Treasurer and three Members-At-Large. On June 16, 2008, the AG*IDEA Executive Committee met and voted to have the AG*IDEA Board of Directors meet in November 2008 at the NASULGC conference and to hold their annual meeting on March 5 and 6, 2009 during the annual APS/ACOP/AASCARR joint meeting. The following program areas were reviewed:

Current Programs: **Ag Mechanization** (undergraduate course sharing with Iowa State University, Kansas State University, University of Missouri and University of Nebraska)

Food Safety and Defense (graduate certificate with Iowa State University, Kansas State University, University of Missouri and University of Nebraska)

Grassland Management – being developed (graduate certificate with Kansas State University, Oklahoma State University, South Dakota State University, North Dakota State University of Missouri and University of Nebraska)

Future Program Areas:

Ag Communication	Ag Education*	Ag Leadership	Animal Breeding*
Biobased Materials	Environmental Science	Floriculture	Horticulture/HortTherapy
Integrated Resource Mgmt	Precision Agriculture*	Poultry Science*	Seed Science*
Soil Science	Swine Science		

*Indicates and Administrative Liaison has been assigned.

A website has been developed, www.agidea.org as an information resource for AG*IDEA.

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INSTRUCTORS/MENTORS NEEDED FOR UPWARD BOUND PROGRAMS:

The Office of Pre-College Enrichment Programs would like your assistance in identifying faculty and teaching assistants who would be interested in working with our programs during the summer of 2009. Currently, we have three programs which host a combined total of 130 students during the summer: TRIO Math and Science Center, Academic Enrichment Upward Bound, and Pre-College Upward Bound. With over 20 years of experience on UT's campus, our programs are dedicated to working with highly motivated high school students from economically disadvantaged families where neither parent holds a bachelor's degree. TRIO Math and Science Center students have career and educational goals in the science, technology, engineering, and mathematics fields, while Academic Enrichment Upward Bound and Pre-College Upward Bound programs serve students whose career interests are not limited to the STEM fields.

All three projects simulate a college-like environment for participants through our residential summer programs. Students live in University dormitories, take classes throughout the day, and participate in a variety of cultural and academic activities throughout the evenings and weekends. MSC also requires students to conduct scientific research with mentors, with the finished project to be presented at the Annual Scientific Poster Symposium.

At this time, we are searching for exceptional instructors and research mentors for our summer component. Subjects include varying levels of science and math, English and research writing, foreign languages, computers and technology, ACT/SAT test preparation, and several electives. Research mentors for the Math and Science Center are needed in a variety of science, technology, engineering, and mathematics fields. In addition to the experience of teaching motivated high school students, this program is an excellent way to expose students to your academic departments on campus. Many of our students have pursued their post-secondary education at The University of Tennessee.

Our summer teaching dates have been set for June 15th -July 9th. I am attaching descriptions of both the instructor and mentor positions for you to distribute to potential applicants. I greatly appreciate your assistance in spreading the word about our programs. If you or your colleagues have any questions, comments, or concerns, please don't hesitate to contact me at (865) 974-4466 or lacampbe@utk.edu . lacampbe@utk.edu

---Leigh Ann Elkins, Project Director, Math and Science Center, 1914 Andy Holt Ave., 25 HPER Bldg., 865-974-4466

REMINDERS:

Later this spring the Department of Defense (DoD) anticipates publishing a Broad Area Announcement (BAA) for its **National Security Science and Engineering Faculty Fellows (NSSEFF)** Program. This program offers significant research funding, with Fellows potentially receiving up to \$600K annually for 5 years. It also offers an opportunity for Fellows to participate on DoD advisory boards and brief senior DoD officials. Here is a link to **last year's** BAA: <http://www.nps.edu/research/WorkingWithNPS.html> (See BAA # NPS-BAA-08-005 and its amendments).

Since the timeline for submitting white papers last year was less than 6 weeks from publication of the BAA, we wish to give faculty advance notice of this upcoming opportunity so that they may have more time to prepare. Last year's NSSEFF research areas of interest are on pp.17-19 of the 2007 DoD Research & Engineering Strategic Plan, http://www.dod.mil/ddre/doc/Strategic_Plan_Final.pdf and we anticipate that these areas are likely to remain the same this year. We also anticipate that there will be no limit on the number of white papers that UT may submit.

Note that in 2008, the first year for the NSSEFF Program, DoD selected only 12 fellows from over 300 applicants. Since the program is so competitive, this year we are offering faculty the opportunity for 2 senior military officers to review their white papers and provide feedback before the papers must be submitted to DoD. Both gentlemen are UT alumni, have recently retired from the Army and Marine Corps respectively, and possess substantial research and development program expertise. We believe they would be a good resource for helping faculty prepare more competitive papers.

If faculty members wish to take advantage of these officers' review, they should submit white papers to **Bill Dockery**, dockeryb@utk.edu, no later than **Fri, 20 March**. If more papers are received than we could reasonably ask the officers to evaluate in a relatively short time, we will do an internal assessment to determine which papers to give them. Please note that review by the officers is **not** a DoD or UT requirement to submit a white paper under the NSSEFF BAA. We will send a notice once the BAA is published, along with any submission guidance as needed.

---Jada Huskey, Research Coordinator, College of Engineering, 865-974-8360, jhuskey4@utk.edu

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REVISED EXTENSION PUBLICATIONS POLICIES AND PROCEDURES MANUAL

The Extension publications manual has not been updated in quite some time. It does not accurately describe procedures now in use. Also, it does not include policies on for-sale publications.

Wanda Russell has been leading an effort to update the manual and address its shortcomings.

Attached for your review and comment is the [draft revision of the manual](#).

Please also share it with Extension faculty and other appropriate people in your unit for their review.

Please send all comments and suggestions to me by close of business on **March 27**. Comments using the comment/editing features of Word are preferred.

Please let me know if you have questions.

Thanks,
George

George F. Smith
Interim Assistant Dean

TAAA&S MEMBERS - CALL FOR PAPERS FOR 2009 APPLIED RESEARCH AND EXTENSION EDUCATION POSTER SESSION / AWARD PROGRAM

From: David Bilderback, Chair Professional Excellence Committee

Subject: Call for Papers for 2009 Applied Research and Extension Education Poster Session / Award Program

It's time once again to have your work showcased in the Applied Research and Extension Education Poster Session at the 2009 NACAA Annual Meeting and Professional Improvement Conference. Please find attached a PDF file which includes the Call for Papers for the Poster Session and instructions for submitting abstracts and a Word document which includes the General Application Form. Also, you can find this information in the January 2009 issue of *The County Agent* magazine.

Dr. George Smith has once again offered up to \$400 per poster for up to 10 posters accepted to the NACAA meeting. **However, this money is contingent on the 2009-2010 budget, so because of the tight budget, the dollars per poster and/or the numbers of posters receiving funding may be reduced.** If there is a change in support I will let you know as soon as possible. This money can be used for producing the poster (printing, laminating, etc.) and travel to the meeting. The 10 posters will be selected based on the order the abstracts are received. **All submissions must be made following the on-line process at <http://ncaa.com/awards/apps/poster.php>**

To be qualified for the money Dr. Smith has offered, send me an email when you submit on-line to dbilderb@utk.edu. The email should contain your abstract. The email will allow me to know the order in which the abstracts are received.

Please have your General Application Form and abstract submitted On-line by **March 15, 2009.**

David Bilderback, Area Specialist- Farm Management
University of Tennessee Extension
Greene County
204 North Cutler Street
Greeneville, TN 37745
(423) 798-1710

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2009 COLLEGE OF GRADUATE SCHOOLS/UNIVERSITY MICROFILMS INTERNATIONAL DISTINGUISHED DISSERTATION AWARD

The 2009 College of Graduate Schools/University Microfilms International Distinguished Dissertation Award Committee is requesting nominations for the 2009 competition in the field of Biological and Life Sciences. Only one nominee from each institution will be accepted. Initial screening will be handled by an appointed committee in the Graduate School. When the applicant has been selected, you will be notified and the nomination will be forwarded to the Council of Graduate Schools Dissertation Committee. After review, a small number of finalists will be selected and the Dissertation Committee will review their complete dissertations. Winners will be notified prior to December 3.

The nominee must meet the criteria stated below:

1. The recipient must have received the doctorate between July 1, 2007 and June 30, 2009, and degree must be confirmed by the Vice Provost and Dean of the Graduate School.
2. The original work must represent an unusually significant contribution to scholarship in the field.
3. Methodological and substantive quality will be judged.

This award consists of an honorarium of \$2,000 and a certificate of citation to be presented at the annual meeting of the Council of Graduate Schools. It will be held December 2 -December 5 in San Francisco, California. Most travel expenses for the award recipients will be paid by the Council of Graduate Schools.

Please send the nomination materials below to Gay Henegar, 111 Student Services Building by **April 3, 2009**:

1. Nomination form.
2. An abstract (not to exceed 10 pages double spaced on 8 ½ X 11" of your dissertation. In addition, appendices containing nontextual material, such as charts and tables, may be included. Each page needs to bear your name and to be numbered.
3. Letters from three referees selected by you, evaluating the significance and quality of your work. One letter is to be from your dissertation supervisor, another from a member of your dissertation committee, and the third from a person of your choice.

Please do not send materials directly to the Council of Graduate Schools. The Graduate School appointed committee will select one applicant to represent the University and forward six copies of the nomination, abstract, and letters of reference to the Council of Graduate Schools.

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3rd DRAFT

 **Extension**

**Publications
Policies and Procedures
Manual**

Definitions of Extension Publications

All Tennessee Extension peer-reviewed materials are classified and issued in one of the following numbered series:

1. **Extension Publication (PB)** — a booklet, manual or curriculum printed for general distribution or for specific audiences within the general public. Generally eight pages or longer.

- A. Requires submission to reading committee for peer review (normally three content specialists and the senior publication editor.) If the publication is intended for a youth audience, the peer review committee should include a state 4-H youth development staff member.
- B. After peer review comments are sent to author, the department head must approve publishing of the material.
- C. Normally developed as a fee-based item unless supported by grant, gift or departmental funds. If fee-based, listed on the Extension e-Marketplace Web site for sale of printed material; e-Marketplace fees and sales tax should be included in the price.
- D. Print version stored and distributed by the Ag Campus Publications & Services office.

For adult audiences:

- A. Also posted on Extension publications Web site for no-charge on-line viewing/download.
- B. Listed in Extension publication catalog.

For youth audiences:

- A. Posted on the Extension 4-H Web site for no-charge on-line viewing/download.

2. **Special Publication (SP)** — smaller publications, charts, posters and other program materials for general distribution or for specific audiences within the general public. Generally shorter than eight pages.

- A. Requires submission to reading committee for peer review (normally three content specialists and the senior publication editor.) If the publication is intended for a youth audience, the peer review committee should include a state 4-H youth development staff member.
- B. After peer review comments are sent to author, the department head must approve publishing of the material.
- C. Print version stored and distributed by the Ag Campus Publications & Services office.

For adult audiences:

- A. Also posted on Extension publications Web site for on-line viewing/download.
- B. Listed in Extension publication catalog.

For youth audiences:

- A. Posted on the Extension 4-H Web site for on-line viewing/download.

3. **Web Publication (W)** — educational/informational materials that exist only in electronic format.

For adult audiences:

- A. Requires submission to reading committee for peer review (normally three content specialists and publication editor).
- B. After peer review comments are sent to author, requires approval by department head.
- C. Posted on Extension publications Web site.
- D. Listed in Extension publication catalog.

For youth audiences, Web publications are developed and published differently:

- A. Requires submission to reading committee for peer review (normally a subject-matter specialist, a member of the 4-H youth development staff and the senior publication editor).
- B. After peer review comments are sent to author, requires approval by both the author's department head and administrative approval by the 4-H youth development department.
- C. Posted on 4-H youth development Web site, under Projects.

4. **Newsletter** — material designed for targeted audiences, produced on a regular schedule (quarterly, semi-annually, etc.)

- A. Does not require peer review.
- B. Requires approval of department head for initial issue; handled routinely thereafter.
- C. May be printed, electronic or both.
- D. Normally numbered by volume (year), then issue number.
- E. Not listed in Extension publication catalog.

5. **Extension Form (F)** — administrative forms, record books, enrollment cards, certificates, report forms and all other forms for general or limited distribution.

- A. Requires approval of department head.
- B. Stored and distributed by department or Ag Campus Publications & Services office.
- C. Not listed in Extension publication catalog.

Assignment of Numbers

One of the publication editors (Wanda Russell or April Moore) in Marketing & Communications will assign all numbers for printed and electronic peer-reviewed materials. State printing numbers (based on account numbers) are also requested from the Graphic Arts Service on-line system by the publication editor as part of the publishing production process. The state printing number must appear as a part of the indicia (EEO statement) on the outside cover of all printed Extension materials

UT Extension faculty and staff also produce a variety of non-numbered materials. These are developed by faculty and staff as needed to meet program needs. Some of these include:

Programs and Brochures — designed for limited distribution; may be tied to events.

- A. Do not require peer review.
- B. Stored and distributed by the department.
- C. Not listed in Extension publication catalog.

Authorship Guidelines

All numbered Extension educational publications (PBs, SPs and Ws) should have an author's name listed prominently in the publication, either on the inside cover or within the first pages of text. If more than one person authored the material, the senior author should be listed first, others following, grouped by departments if possible.

For new publications, the current author(s) should be listed.

For reprints, the following categories apply:

- If the author is still on staff, no changes.
- If the author has recently left or retired, the author's name will continue to be used until the material is revised. A current contact person may be added to the publication if needed.

For revisions, the following categories apply:

If the previous author has left or retired, the new author may review the existing material and revise it.

- *If the revision is minor*, both the new author revising the material and the previous author will be listed as authors. The previous author's credit will be after the current author, and may include either "former" or "Emeritus" if applicable, and may also include "Originally written by" if applicable.
- *If the changes are major*, the new author(s) who are revising the material will be listed as author(s) (not the original author). The original author will be acknowledged separately on the inside front cover or other appropriate position as the original author of the material. A major revision also requires review by a new reading committee.
- A determination of whether revisions are major or minor will be made collectively by the author(s), the senior author's department head and the senior publication editor.

A corresponding author may be identified for a publication if one or more of the authors are not connected with the University of Tennessee, or if they are students who may have left the university.

Procedure for Peer-Reviewed Manuscripts

The use of sophisticated word processing and desktop publishing software has allowed each Extension author to create documents that look quite professional, including a variety of photographs, graphic elements and images. However, this creates a problem when the material is submitted to a committee for peer review.

It is very difficult, and in some cases impossible, to make editorial changes and suggestions on a document that has already been formatted – often single-spaced, in columns and with graphics inserted into the copy. The reviewers have no room to write comments and questions.

An additional problem: In some cases, documents submitted for peer review have already had design/layout and illustrations added. When peer review is completed, and authors make changes based on reviewers' comments, the layout and perhaps the images must also be revised, creating additional work (and expense) for the author, the editor and the designer.

Accordingly, all authors submitting materials for peer review should prepare their manuscripts in the following manner:

1. Text should be double-spaced.
2. Text should not be set in columns, unless required by tables included in the manuscript.
3. Indicate in the text where photos and illustrations should be placed in relation to text, but do not insert and wrap text around them. Images should be sent either separately or at the end of the document, with figure numbers/captions noted for each.
4. Prepare tables as you wish them to look, but please use no smaller than 8-point type.
5. Place only one space after a period.
6. Do not type text in all caps. Use caps and lowercase instead.
7. The preferred style used by UTIA is Associated Press. Authors may purchase the current AP stylebook at the UT bookstore to use as a reference.

Procedure for Approval and Printing Extension Publications (PB), Web Publications (W) and Special Publications (SP)

1. The senior author submits a master copy to his/her department head for peer review. (*See procedure on previous page.*) The author may submit recommendations for reading committee members (usually three persons) to review the material. If a proposed manuscript is for a 4-H audience, the reading committee should include one 4-H Youth Development staff member and/or one regional program leader. The Marketing and Communications senior publication editor is a standing fourth member of all reading committees for editorial review.
2. The department head reviews the manuscript and the suggested reading committee members. If approved, a copy of the manuscript is forwarded (hard-copy or electronically) to each member of the reading committee, with a letter requesting each member to review the manuscript for appropriateness and content. Normal time for peer review is one month. After their review, reading committee members reply with a letter outlining their comments and suggestions to the department head and author, and send the revised (marked) manuscript to the author.
3. After all comments by the peer reviewers have been received, the author decides which changes he/she wishes to incorporate into the manuscript. Author and department head discuss the manuscript. If the department head approves publication of the material, decisions are made regarding format (print, or electronic, or both). If the material is to be printed, the author initiates a printing authorization form (ADMF-76), which can be found online at <http://www.utextension.utk.edu/resources/forms/ADMF-76.htm> The author completes the top third of the form; the department head completes and signs the middle portion of the form, authorizing expenditure of printing funds. The department head may request estimated printing costs prior to his/her approval. (*A publication editor from Marketing & Communications may assist in obtaining cost estimates.*)
4. The manuscript, any accompanying images and the completed printing authorization form (ADMF-76) are sent to a publication editor in Marketing and Communications.
5. The author(s) meet with a publication editor to discuss printing/production needs. Both hard copy and electronic copy of the material are provided to the editor, along with photos, suggestions for illustrations, etc. The editor completes the final section of the printing authorization form and signs it. A copy of the signed form is returned to the senior author for his/her records.
6. The publication editor assigns a PB/SP/W number if the manuscript is new, and performs a final edit. The editor applies for a state printing authorization number from the UT Graphic Arts online system, based on the account number and account name provided by the department. (This number will appear on the finished publication, immediately above the EEO statement on the back cover.) The project is assigned to a graphic artist for layout, design and illustration. The artist works directly with the senior author to design/revise the material.

7. When the designer completes a publication design, the senior author receives a PDF "first proof" copy, usually by e-mail, along with an approval sheet. **It is the responsibility of the author to proof the material for typos and other necessary changes.** Changes should be noted in red. After proofing, the author returns the proof and the approval sheet to the graphic designer handling the job.
8. After the author's corrections have been made, the senior author receives another, "final" proof copy to verify that all needed changes and corrections have been done. **This is the author's last chance to make changes prior to publication.** The final proof is merely verification that the corrections have been made; no new revisions or additions should be made to the final proof.
9. After final author approval, the designer sends the approved electronic file to Graphic Arts. The publication editor completes the Graphic Arts paperwork and sends it, along with a hard copy of the material, to Graphic Arts for publishing. A copy of the Graphic Arts job order is sent to the author so he or she is aware the publication production has been completed and the job is being printed. The publication editor and the Web designer in IT also place the electronic version of the pub on the Extension publications Web site.
10. When printing is completed and copies are delivered to the Publications and Services unit, the publication editor will notify the author(s), the department head(s) and appropriate administrators, sending a copy of the publication to each. The publication editor will also e-mail all county and regional Extension offices, notifying them of the publication's availability, including any limits on copies or if a publication is for sale. If a publication is Web-only, author, department head, administrators, county and regional staff will also be notified by e-mail of the publication's availability on the Web. *(Reprints do not require notification — they are for re-stocking purposes only.)*
11. **Note:** When revising or reprinting an existing publication (PB, W or SP), authors should check with a publication editor to determine if the Marketing & Communications office has an electronic copy of the material. Many publications are several years old and may not exist in electronic format. The material will then have to be scanned or retyped by the author.

Procedure for Approval and Printing Extension Newsletters, Programs and Brochures

1. All newsletters, programs and brochures, while not requiring peer review, must follow all other procedures outlined below. Current printed newsletters are quarterly issues, with material due approximately the first of December, March, June and September. For distribution and printing efficiency, any additional printed newsletters should follow this schedule. For new electronic-only newsletters, authors should check with an editor in Marketing and Communications to work out a specific schedule for production.
2. Existing newsletters, programs and brochures are prepared by the author. If materials are to be printed, budget approval must be given by the department head. A hard copy and an electronic copy are sent directly to the publication editor for editing and production. The average time for production (including editing, layout, proofing and corrections) is two weeks. Printing requires additional time — at least two weeks for newsletters, usually a week for quick-copied items.
Please allow adequate time for production and printing.
3. All materials (*except subsequent issues of an established newsletter*) should be accompanied by a printing authorization form (ADMF-76), signed by the author and the department head. The publication editor will also sign the form, and return a copy to the author. The form is available online at <http://www.utextension.utk.edu/resources/forms/ADMF-76.htm>
4. If a program is a repeat from last year with minor changes (and was prepared in Marketing and Communications), please contact the appropriate publication editor to check if the information is on file. If so, you will be advised how to prepare the manuscript for production. If not, the material should be submitted (*both hard copy and electronic copy*) just as any other publication, including a printing authorization form.

For-Sale Publications Guidelines

UT Extension is a non-profit organization. We do not sell publications to make a profit. Rather, the purpose is to enhance or expand our educational programming beyond what we can do with appropriations, grants, gifts and contracts.

The decision to sell a publication and the amount to charge for a publication are determined on a case-by-case basis by the author(s) and the senior author's department head in consultation with a publications editor. These decisions should be guided by the following points.

1. Printed publications more than eight pages long that are not intended for limited resource audiences and that are not supported with grants, gifts or revenues generated from fees will be sold at a price that recovers costs.
2. A publication should be priced to recover printing, handling and shipping costs, sales tax and e-Marketplace fees. No overhead or development costs should be included.
3. To determine a ballpark estimate for the unit price of a publication, calculate the following:
(Cost of printing x 2) + shipping + 15% (includes sales tax & e-Marketplace fee)
4. Publications paid for with grant, gift or contract funds can be sold if the purpose is to accumulate funds for future reprinting. Permission to sell publications should be included in the grant, gift or contract agreement.
5. County Extension offices will pay 50 percent of the sale price of a publication for use in their educational programs. Cost should be recovered through user-fees for the programming.
6. Specialists and the author(s) of a publication will also receive a 50 percent discount. Money received from sales will be credited to the senior author(s) unit. Shipping costs, sales tax and e-Marketplace fees will be paid by the senior author(s)' unit.
7. Extension programs are open to all regardless of individual ability to pay. Provisions should be made for low-income individuals who may not be able to afford to buy for-sale publications.
8. All for-sale publications will be available from the Extension publications Web site, where they may be downloaded and printed for free.