**A Statement on State Budget Reductions**

By Charles W. Steger, president

The recession and its impact on the state’s budget have dealt the citizens a severe blow. We understand the problems facing our elected leaders and their limited choices in addressing reductions of state revenues. Nonetheless, these decisions will have a significant impact on our students and their families.

After the additional cuts announced Tuesday, the University Division (the educational component of the university), will see its baseline appropriation of $185 million reduced by a grand total of $52.4 million. If we were to absorb all these cuts without a tuition increase beyond that already planned for FY 04, we would be forced to eliminate about 300 jobs within this division. This is in addition to the 144 jobs already lost in the Round 1 reductions.

We could see the reduction of some 16 percent of class sections or about 690 course offerings per year. Students will need longer to graduate resulting in another form of increased cost for students and families. Buildings will go without repair. Sponsored research, which helps pay for graduate education and stimulates the economy, will decrease by as much as $23 million. The research impact alone is estimated to create a loss to Virginia’s economy of $68 million.

Virginia Cooperative Extension and Virginia Agricultural Experimental Station will lose $11.6 million of their total state appropriation of $61 million, including the cuts announced Tuesday night. The VCE and VAES have no offsetting revenue streams, so they are faced with eliminating about 147 positions in the current fiscal year in addition to the 106 positions lost in the earlier reduction. Many programs for producers, citizens, and communities will be eliminated.

Today the university’s state appropriation stands at $61.5 million less than this time last year. By the second year of the biennium, Virginia Tech’s state appropriations will have been reduced about $71 million or about 27 percent from its FY 02 level. With such rapid losses of state support, universities will have no choice but to become ever more dependent on tuition revenue. The public has come to expect a certain level of quality from Virginia’s highly regarded colleges and universities. Most importantly, they expect faculty members in the classroom. We will strive to keep it that way.

Virginia Tech is again faced with tough choices: drastically reduce faculty and staff employment, limit enrollment, or implement some form of tuition increase. We plan to take a mid-year tuition increase to the university Board of Visitors for review in November. We have not yet determined the amount, but we know that it can offset the blow. We understand the problems facing our elected leaders and their limited choices in addressing reductions of state revenues. Nonetheless, these decisions will have a significant impact on our students and their families.

"The grant from Intel, a technology leader, represents an investment in Virginia Tech’s capabilities and vision," said Sam Albinino, director of Corporate and Foundation Relations at Virginia Tech. "The award allows us to establish a unique, student-centered, discovery-based course in an emerging technology area."

Midkiff, DaSilva, and Chen proposed the development of a new course in wireless and mobile-system design. The course will be available to traditional students at the Blacksburg campus and to practicing professionals enrolled in graduate and continuing-education programs in northern Virginia. The course is innovative because it is multidisciplinary and will involve the study of all system aspects from wireless links to mobile-application software. Rather than (See STATEMENT on 3)

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**Crystallography lab to provide interdisciplinary research support**

By University Relations interns Courtney Ware, Carey Mosier and Hillary Fassell

The departments of Chemistry and Geological Sciences have agreed to pursue interdisciplinary crystallographic research in the Virginia Tech Crystallography Laboratory.

Through an agreement with Oxford Diffraction Ltd., the Crystallography Laboratory has added a second diffractometer that will give researchers and students a unique opportunity to develop new experimental techniques to solve scientific problems.

X-ray crystallography is a technique that has existed for nearly 100 years. The technique works by shining a beam of X-rays onto the crystal of the material. Due to its symmetry, the crystal will then scatter the X-rays in a characteristic pattern, and this can be recorded and interpreted to determine the structure and geometry of the molecules in the crystal. This is of great interest in chemistry, physics, biology, and geology, where a knowledge of molecular and atomic structure allows the properties of a material to be both understood and tailored.

"Crystallography has always been interdisciplinary in nature," said Ross Angel, research professor in crystallography in the Department of Geological Sciences. "All crystallographers use the same techniques to address the relationship between structure and function in fields ranging from materials and electronic engineering, through chemistry and geology, to biology and medicine. The establishment of the Crystallography Laboratory reflects this. We now have the ability to share instruments and expertise. We are exploring fundamental concepts in chemistry by applying techniques developed in the geosciences, and we will provide a focus and vehicle for interaction between faculty and research programs across the entire breadth of the university community."

The Xcalibur-2 diffractometer was funded by a National Science Foundation (NSF) grant to Carla Sleighbodnick and Larry Taylor from the Chemistry Department. It joins Xcalibur-1, which was purchased in 2001 by Nancy Ross and Angel of the Department of Geological Sciences. Together, these two diffractometers allow experiments to be performed routinely to temperatures as low as 10 Kelvin and to pressures as high as 10 GPa (100,000 atmospheres).

"We see ourselves as a regional facility for the scientific community," Sleighbodnick said. "Eleven colleges and Universities in Virginia, North Carolina and Tennessee will send their samples to us to be measured. Next summer we will host a workshop, sponsored by Oxford Diffraction, to bring students from these universities to Blacksburg to train them in the use of the new equipment for their own research projects."

The Crystallography Laboratory will also house undergraduate and graduate courses in crystallography, improving the education of students by exposing them to a broader range of scientific applications and by giving them hands-on laboratory experience. Faculty members and students will also collaborate with the company in the development of new techniques and technological advances.

For more information, go to http://www.crystal.vt.edu, or call Angel or Sleighbodnick at 1-7974.
Women in Mathematics: Career Day scheduled

Virginia Tech faculty members, students, and alumnae will join approximately 250 young women Wednesday, Nov. 13, for an intergenerational, multi-media, mathematical celebration.

Sixth-graders from 20 area schools have been invited to participate. The eighth annual Women in Mathematics: Career Day at Virginia Tech will begin at 9:30 a.m. with a welcome session at the Math Emporium on University City Boulevard in Blacksburg, featuring Bevlee Watford, associate dean for academic affairs in the College of Engineering, and John Rossi, head of the Department of Mathematics. From 10 a.m. to 11:30 a.m., students will participate in two 40-minute sessions (described below). From noon to 12:40 p.m., students will interact with the Career Day panel. From 12:45 p.m. to 1:25 p.m., students will participate in the final session.

The four sessions are as follows:

1. “Math and Computers Are Everywhere,” led by Terri Bourdon, will provide hands-on activities to investigate computer graphics in such varied fields as science, art, and electronics.

2. “Explorations of Math and Art through Tessellations,” facilitated by Gwen Lloyd and Virginia Tech mathematics-education majors, will enable students to create their own tessellation designs on the computer.


4. “Mathematics as a Career,” led by Mary Alice Conner, will provide an overview of career paths in mathematics.

Traffic and parking changes for Homecoming, football game

The annual Homecoming Parade will be Saturday, Oct. 19 from 9 a.m. to noon. Traffic will be closed along the parade route, which travels down the north side of the Mall then along the Drillfield ending at Burruss Hall. On Friday all parking along the north side of the Mall will be restricted to new parking only. All vehicles must be removed from the north side of the road by 10 p.m. Friday or be subject to towing. Parking will return after the parade on Saturday.

Football Traffic and Parking Changes

The following parking and traffic changes will take place today and on Saturday, Oct. 19 for the home football game. This information is also valid the following two weekends for the next two home games on October 26 and November 2.

On Fridays before games, the following lots and roads will be restricted to no parking after 5 p.m. and all vehicles must be removed from these lots and roads by 10 p.m. Friday or be subject to towing: Litton-Reaves/Waller lots (located off Washington Street and Duck Pond Drive), Coliseum lot (located off Washington Street and Spring Road); the gravel lot located behind the Jamerson Center; stadium lot; Track/Field House lot; tennis-court lot (on Washington Street beside the Coliseum); Vet-Med lot (north side only); EHSS lot (located off Tech Center Drive); Maintenance lot (located off Southgate Drive) Engel/Creatham lot, Price lot, Davidson lot (only the section parallel to West Campus)
More than 300 graduate students complete GTA Workshop program  

By Julie Kane  

Reflecting upon the two-day GTA workshop held August 19 through 20, a student wrote, “I was very touched with the amount of effort that went into getting us in the system. Everyone has been really helpful.” That observation was reiterated many times by other students.  

A total of 368 students attended the twelfth annual Graduate School’s GTA (graduate teaching assistant) Workshop. Of that number, 320 completed the program and will receive one credit for GRAD 5004.  

At the beginning of the workshop, students were welcomed by President Charles Steger who told the audience that GTA’s are a crucial part of the university and that they are addressed by dean of the Graduate School and vice provost for graduate studies, Karen DePauw.

“An important role of graduate education is in preparing the future professoriate and TA training,” she said. “I am planning to facilitate a collaborative initiative that includes the intersection of the TA training program, ‘Preparing the Future Professoriate,’ and faculty development.”

To address the space problem of previous years, Donald McKeon, director of ESL/GTA training, said the normal three-day program was reduced to two days so that all of the plenary sessions could be conducted on the first day in Owens Dining Hall, a much larger facility.

“The two-day format may be continued in the future,” McKeon said. “The three-day workshop was a bit too prolonged and many departments want to provide orientations for their own TA’s before the school year gets under way.”

Among the subjects presented during the two-day workshop were oral presentations, interactive learning, lecture preparation, grading techniques, teaching labs, digital imaging, the latest developments in information technology, writing across the curriculum, university policies for students, course design, time management, and information concerning students with disabilities. An essential component of the course was an overview of university support services.

Provost Mark McNamee concluded the workshop. “GTA’s are important to the instruction of the university,” he said. “To increase the quality of our programs, GTA’s must be well trained and positively motivated. To continue the efforts made by this workshop, every day in the classroom or laboratory should be a learning experience. We encourage and appreciate the role of mentors to GTA’s and additional advice from professors and students throughout the year.”

Students gave high marks when ranking the workshop. The highest ratings were given for its organization (3.74 out of a possible 4.0), and students felt the presenters showed concern for GTA’s needs (3.73). Most students rated the programs useful (approximately 3.5).

One student said, “There were lots of issues brought up I had not even considered before the workshop, and now I feel better prepared for them.” The GTA workshop originated as part of Research and Graduate Studies’ “Training of the Future Professional” program, involving both GTA training and research career preparation.

The following classified positions are currently available. Position details, specific application procedures/position-closing dates may be found on Personnel Services’ website at http://www.ps.vt.edu. Positions are also listed on the Job Line, a 24-hour recorded message service. For information on all job listings, call 1-5300. Some positions include state benefits. Positions with numbers beginning with “W” are hourly and do not include state benefits. Individuals with disabilities desiring assistance or accommodation in the application process should call by the application deadline. Closing date for advertised positions is 1 p.m. Monday. An EO/AA employer committed to diversity.

The public will be charged $5 for parking on campus during football games. This only applies to those who do not have a valid Virginia Tech parking permit. The lot used by the public is B-lot.

Blackburg Transit (BT) will run buses on all normal routes for the weekend. All home game days will be fare-free for BT. Off-campus public parking is available at three locations in the town of Blacksburg. BT football shuttles will run to the stadium three hours before game time from the parking lot by Blacksburg High School and from the new Blacksburg Middle School at 15-minute intervals. They will continue to run for two hours after the game. Public parking will also be available at the old Blacksburg Middle School. There is a $5 charge for parking in the community lots.

Handicap parking will be available in the center section of B-lot (located behind Whittemore Hall). Signs will be posted for guidance to that area. Handicap shuttles will transport persons from this lot to the stadium before, during, and after the game.

For more information, call Parking Services at 1-3200 or, after regular business hours, the University Police Department at 1-6411. For information concerning reserved Hokie Club lots, call 1-9963.
By Jeffrey S. Douglas
A faculty member in the Virginia-Maryland Regional College of Veterinary Medicine was honored individually and Virginia Tech was honored institutionally by the Mid-Atlantic Region of the American Cancer Society during its Fifth Annual Regional Awards Celebrations.

John Robertson, professor, Department of Biomedical Sciences and Pathobiology, was awarded a Regional Award of Merit for his leadership in establishing several collaborative research, educational, and development programs between the college, the university, and the American Cancer Society.

Robertson leads the Center for Comparative Oncology, an emerging cancer-research center within the VMRCVM that seeks to develop improved treatments for cancer by studying cross-species similarities and differences in tumor development. The center is also working to foster awareness and collaboration among a number of Virginia Tech scientists who are conducting cancer research.

Robertson has made numerous presentations on cancer to various committees and organizations within the ACS and led efforts to create a more productive research and development relationship between the American Cancer Society and Virginia Tech. He organized a Student Cancer Day for veterinary students in the VMRCVM that was co-hosted by the ACS and he also organized the 22nd Annual American Cancer Society Seminar for Cancer Researchers in Virginia. He has also been very active with the ACS’s “Relay for Life” program.

The university was also honored with a regional Collaboration Award for helping advance the mission of the American Cancer Society. That award was made in recognition of an Institutional Research Grant in the area of comparative oncology that the ACS has funded in the VMRCVM for the past three years.

The award also recognizes work conducted by Charles Baffi, associate professor, Department of Teaching and Learning, and his graduate students for collaborating with the American Cancer Society and the National Collaborative Evaluation Fellows Project to critically examine and recommend improvements for ACS programs like “Active for Life,” “Reach to Recovery,” and “Road to Recovery” programs.

Finally, the award recognized the successful “Relay for Life” program that was recently presented for the first time at Virginia Tech. Led by Brian Montgomery and Virginia Tech’s Student Government Association, the program raised $50,000 for the ACS.

American Cancer Society recognizes VMRCVM researcher

By Allian Miller
By all accounts, Thomas J. “Stonewall” Jackson’s childhood was that of a shy and lonely orphan—a nearly friendless introvert deprived of family love and rarely afforded the opportunity to live the life of an inquisitive, growing boy.

But Jackson matured to become one of this nation’s great military strategists and leaders—reviled by his troops, trusted by his superiors, and admired even by his adversaries.

The influences that guided this transformation from reticent boy to confident commander are explored in Stonewall Jackson’s Book of Maxims, compiled and edited by James I. Robertson Jr., alumni distinguished professor of history and executive director of the university’s Virginia Center for Civil War Studies.

According to Robertson, the maxims—Jackson’s self-selected principles of personal conduct and self-improvement—were recorded by the general in a small blue-marbled notebook over a five-year period, starting in 1848, and are largely drawn from the collective practical and philosophical teachings of others who influenced Jackson’s life, including Lord Chesterfield, John Bunyan, Joel Parker, O.S. Foster, George Winfred Hervey, and, most significantly to Jackson, the Bible.

But the notebook disappeared after Jackson’s death in 1863. More than 120 years later, in the course of researching Jackson so he could write a biography of him, Robertson uncovered the notebook while examining other materials in the Davis Collection of Civil War manuscripts at Tulane University. Robertson put the maxims on hold while he completed his research and wrote the biography—Stonewall Jackson: The Man, The Soldier, The Legend—which earned numerous awards.

With that work, which critics called the definitive biography of Jackson, behind him, Robertson turned his attention to publishing the maxims. In his new book, he presents the maxims in full and precisely as written by their original author. They cover five primary categories: choice of friends, rules of conversation, guides for good behavior, motives to action, and politeness and good breeding.

The author accompanies each maxim with supplementary commentary about such things as the origin of the adage, quotations that parallel Jackson’s statement, and the manner in which the maxim was reflected in Jackson’s day-to-day life.

“Jackson died after one of his own men shot him during the Battle of Chancellorville, and while the cause that he served, fought, and ultimately died for did not prevail, the true measure of the man lies in how he lived his life and in understanding the values and principles that guided his daily conduct,” Robertson said.