

SPECTRUM

Virginia
Tech

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

<http://www.spectrum.vt.edu>

VOLUME 26 NUMBER 6 FRIDAY, NOVEMBER 14, 2003

Jones named interim director of Cooperative Extension

By Charlie Stott

Judith H. Jones, associate director of Virginia Cooperative Extension, has been named interim director, replacing Steven H. Umberger, according to Sharron Quisenberry, dean of the College of Agriculture and Life Sciences.

Jones, who is associate director for administration will also head up a nationwide search for a permanent replacement for Umberger, who has resigned and asked for a reassignment within Virginia Cooperative Extension. The search for a new director is expected to begin within a few weeks.

"I appreciate Dr. Umberger's dedication and service to Extension and the College of Agriculture and Life Sciences," Quisenberry said. Umberger led the development of an agency budget proposal, known as the Critical Staffing Initiative. The initiative is an effort to restore state

funding for positions and capabilities that have been lost due to recent budget reductions. Quisenberry said the initiative remains a priority not only for Extension, but also for the college's education and research missions.

"We're fortunate to have someone of Dr. Jones' experience and ability who can step in and provide strong leadership and vision for our Cooperative Extension programs across the state," Quisenberry said.

Jones said, "I will be working with our partners and stakeholders to get their input and to ensure that our programs continue to meet the needs of the people of Virginia. We have many unique and highly valuable educational programs. I will be working with our people here, at our sister institution, Virginia State University, and with our field faculty to continue these strong efforts. I will be supporting them so they can continue to do their jobs successfully."

Jones has more than 20 years of senior

administrative experience at Virginia Tech. She was director of affirmative action from 1982-89 and then became assistant vice provost for Virginia Cooperative Extension. In 1990, she was selected associate director of Extension for field operations and has spent the past seven years as associate director for administration.

She earned her B.S. degree from Radford University, an M.A.T. in higher-education personnel administration from Virginia Tech and her Ph.D. in higher-education administration from the University of North Carolina.

She also has served as a consultant and teacher for numerous private and public employers on personnel management, team building, effective communications, leadership, affirmative action and diversity. She is past president of the *Journal of Extension* Board of Directors and has served on many regional and national Extension committees.

Exemplary Department Awards announced

By Clara B. Cox, Liz Crumbley,
Jean Elliott, and Sookhan Ho

The Board of Visitors has announced that six departments and programs have been honored with University Exemplary Department Awards for collaborating across departmental boundaries to achieve common goals.

The departments of electrical and computer engineering (ECE), materials science and engineering (MSE), and physics received the top \$10,000 Exemplary Department Award. The Graduate Program in Science and Technology Studies received a \$5,000 award, and another \$5,000 award went to the Department of Foreign Languages and

(See EXEMPLARY on 2)

Board resolutions strengthen academic, administrative programs

By Mark Owczarski

At its quarterly meeting held November 3, the Virginia Tech Board of Visitors adopted several resolutions to strengthen academic and administrative programs.

Among the resolutions passed was one related to Virginia Tech's administrative responsibility for the Optional Retirement Plan and the Cash Match Plan. This resolution provided for several actions that follow up on the March 2003 approval by the Board of Visitors for Virginia Tech to "opt out" of having its faculty optional-retirement plans administered by the Virginia Retirement System. As part of that resolution, the university's Master Trust Agreement, which provides the legal framework for the university's Defined Contribution Retirement programs, and the university's investment-policy statement, were approved. A Defined Contribution Advisory Committee will be established to provide oversight of the retirement plans.

The approved changes will place the administration of faculty Optional Retirement Plans at the institutional level, will provide a more direct avenue for local input and oversight of the faculty optional-retirement plans, and will offer greater opportunities to shape these plans to meet the needs of Tech employees.

While many of the administrative practices will remain intact, there will be greater opportunities to work directly with the vendor/providers to assure greater accountability to the university and service to faculty members.

The board heard a report from the ad-hoc committee on the narrow-tailoring concept that reviewed race-conscious

(See BOV on 7)

Biomedical, public-health-sciences institute launched

By Jeffrey S. Douglas

Virginia Tech is putting a new kind of knowledge to work. In addition to its contributions to the agricultural and engineering sciences and information technology revolution, the university has been building capacity in human health and life sciences research for more than 25 years.

Now, Tech's steady rise in stature as a major life-sciences research center includes the creation of a new interdisciplinary research center known as the Institute for Biomedical and Public Health Sciences (IBPHS).

The new institute will lead in the development of cross-university research initiatives in the biomedical sciences, boost graduate education, and partner with an array of human health-related educational and governmental institutions on an ambitious quest to discover new ways to promote human health and well-being.

"The institute has been created to provide a catalyst for biomedical health researchers working in different departments and colleges at the university," said Mark McNamee,

(See BIOMEDICAL on 7)



PAYNE

Former religious-affairs director Payne dies at 87

By Paul Lancaster

religious-affairs director and friend to the Virginia Tech community for more than half a century, died Saturday, Nov. 8. He was 87.

"He was a man of conviction, a man of his times, and a man who loved his life here with the extended Virginia Tech family. We will miss him," President Charles Steger said.

Payne completed his divinity degree at Yale Divinity School in 1946. He and his wife, Virle, came to Virginia Tech that year as associate YMCA secretary, and he was ordained in the Blacksburg Baptist Church in 1947. He left in 1949 to work with the YMCA in Pittsburgh. After five years there, his YMCA work brought him back to the South, trying to ease the integration of blacks into universities. He returned to Virginia Tech in 1958 to succeed Paul Derring as secretary of the YMCA. He was appointed as assistant to the dean of students at Virginia Tech in 1964, and later served as counselor for religious affairs.

While he formally retired in 1981, he continued to serve the university as a friend, pastor and advisor. He participated in the dedication of dozens of buildings at the university, including Payne Hall, named to honor him in 1993.

(See PAYNE on 7)



Terascale participants, from left: Srinidhi Varadarajan, Kevin Shinpaugh, Glenda Scales, Jason Lockhart, and Pat Arvin. (J. McCormick)

Tech's supercomputer ranks number three

By Lynn Nyström

This weekend, visionaries and well-known leaders in the field of high-performance computing will congregate at the Phoenix Civic Plaza Convention Center in Arizona this weekend. Attending the conference, called SuperComputing 2003 (SC2003), is a group of newcomers to the Top 500 list of the world's fastest

supercomputers. But everyone at the conference will know about the group from Virginia Tech.

The university has been making international news for the past two months, ever since the computer world began reporting on August 29 on the Think Secret web site about the university's plan to build its own

(See TECH'S on 8)



President Charles Steger, left, and Provost Mark McNamee, right with departmental representatives, from left: David Clark, materials science and engineering; John Ficenec, physics, and Warren Stutzman, electrical and computer engineering. (M. Kiernan)



President Charles Steger, left, and Provost Mark McNamee, right with departmental representatives, from left: Andrew Becker, foreign languages and literatures, and Tarun Sen of Pamplin College of Business Graduate and International Programs. Also receiving a \$5,000 award was the Graduate Program in Science and Technology Studies. (M. Kiernan)

EXEMPLARY *Continued from 1*

Board, University Recognize Exemplary Departments

Literatures' French section and the Pamplin College of Business Graduate and International Programs. Provost Mark McNamee presented the awards.

The Office of the Provost established the awards in 1994 to recognize the work of departments and/or programs that maintain exemplary teaching and learning environments for students and faculty members. Each year, the Awards Committee selects a different focus for recognition.

"Collaborations among faculty members from different departments enrich the university's educational and research efforts. In recent years, such collaborations have become increasingly important since many new fields of study cross a number of disciplinary boundaries," said Ron Daniel, associate provost for undergraduate education, who oversees the Exemplary Department Awards program. "The Provost's Office is pleased to see such strong working relationships being forged throughout the university."

ECE, MSE and Physics

The top award recognizes a program that draws on expertise from three different departments, two in the College of Engineering and one in the College of Science. About five years ago, a group of faculty members in ECE, MSE, and physics initiated a collaboration aimed at strengthening Virginia Tech's academic and research programs in the related and increasingly important fields of microelectronics, optoelectronics, and nanotechnology. These colleagues realized that "it was essential to reinvent the way in which these subjects were taught and the manner in which we conducted research," said Robert Hendricks, professor of ECE and MSE and a leader in the collaboration.

With support from the Pratt Foundation and the Virginia Microelectronics Consortium, the faculty team and their departments established the Center for Microelectronics, Optoelectronics, and Nanotechnology (MicrON). "The departments have worked very closely to develop integrated, cross-disciplinary curricula and to establish central facilities that advance the research activities of faculty members throughout the university and foster interdisciplinary collaborations," said James Heflin, associate professor of physics.

The collaborative efforts of the

departments and faculty members associated with MicrON have resulted in significant advances in a short time. In 1999, the group won a National Science Foundation (NSF) grant that it has used to develop a curriculum consisting of more than 10 sophomore- to graduate-level courses spanning the fields of microelectronics, optoelectronics, and nanotechnology.

It also obtained funding to build and equip four teaching and research laboratories, including a semiconductor-fabrication cleanroom and a state-of-the-art metal-organic-chemical vapor-deposition lab for "growing" semiconductor wafers.

Faculty collaborations have led to a number of new research grants and projects, along with funding to support graduate students from several departments. Another major accomplishment is the development of a proposal for a minor in microelectronics engineering.

"We have a group of faculty members who, given the opportunity and the encouragement of the administration, came together in a cohesive team to make it all happen," Hendricks said.

Tech students have been the major beneficiaries of this collaboration. David Gray, who earned his bachelor's degree in ECE and master's in MSE and is now a Ph.D. student in MSE, has watched the program evolve. "I have seen a dramatic broadening of the scope of courses, a more diverse student body involved in the area, and a more complete personal understanding of the field," Gray said.

Graduate Program in Science and Technology Studies

One of the two \$5,000 awards went to a program that was founded in 1985. That program, the Graduate Program in Science and Technology Studies (STS), is a cooperative venture of STS faculty members and the departments of history, philosophy, political science, and sociology.

Additional participants come from such diverse disciplines as Appalachian studies, architecture, communication, English, geography, mathematics, teaching and learning, urban affairs and planning, and women's studies. STS graduate students also hail from a wide range of backgrounds, including the natural and physical sciences, engineering, numerous professional

disciplines, history, anthropology/sociology, political science, and philosophy.

Students in the program analyze the ways society affects the development and implementation of scientific and technological knowledge, as well as how scientific and technological pursuits affect people. "The students emerge able to identify and examine the social, cultural, historical, political, and intellectual contexts for understanding science and technology in today's rich and complicated world," said Valerie Hardcastle, STS program director.

The five-unit STS program has more than 100 graduate students enrolled at its Blacksburg and Northern Virginia campuses. STS boasts of a 100-percent placement rate for its graduates, whose career paths range from holding tenured positions at top research universities to forging technology policy with the Department of Defense to running historical archives at the American Association for the Advancement of Science. †

The STS program is active in both the public and university communities. "Choices and Challenges," an on-going theme-based public forum that examines the impact science and technology have on everyday lives and decisions, has been a premier outreach program for more than 20 years. It reaches about 25,000 people annually through its Public Broadcasting System features, the annual forum, and digital learning modules. STS graduate students help run the forum, prepare the broadcasts, create the learning modules, and then use these modules in their own courses.

In addition, STS graduate students teach a course to engineering undergraduates called Engineering Cultures, in which students learn how engineering is practiced in other nations.

The program also sponsors an on-going weekly speaker series and maintains an annual graduate-student conference on Science and Technology Policy funded by NSF. Last year, the Graduate Student Organization for STS received the University Student Leadership Award's Outstanding Achievement for an Organization Award.

Foreign Languages and Literatures/ Graduate and International Programs

The second \$5,000 award recognizes an effective instructional project. The French section of the Department of Foreign Languages and Literatures in the College of Liberal Arts and Human Sciences and the Pamplin College

of Business Graduate and International Programs developed an instructional project that promotes interdisciplinary learning and cross cultural experiences.

The two programs cooperated to win a Title VI grant from the U.S. Department of Education. This project is an outgrowth of a successful five-year working relationship between Virginia Tech and the highly regarded French *grande École Institut National des Télécommunications*.

Along with this international partnership, the collaboration has helped improve study-abroad programs that combine the study of international business with the study of foreign language and culture. Courses have been created and expanded, and a lecture series on international business has been launched.

"Faculty members from Pamplin and the French program have worked together to plan and evaluate study-abroad programs where our students learn how differences between countries affect business practices and perceptions," Pamplin Dean Richard E. Sorensen said.

Sharon P. Johnson, assistant professor of French; Richard L. Shryock, associate professor of French; and Robert T. Sumichrast, former associate dean of Graduate and International Programs in the Pamplin College, have led this collaboration between the programs.

"The dual degree curricular initiatives provide our students with a world-class education. We believe that the undertakings can serve as a practical model for the internationalization of other units at the university," said Jerry Niles, dean of the College of Liberal Arts and Human Sciences.

Aside from providing a model enabling language faculty members to work with faculty members from professional schools, the collaboration has established a structure that enables students to demonstrate what they know and can do with language in their professional fields. It addresses needs of learners who are knowledgeable in business content but who are learning to become proficient in a language. It also helps students who specialize in French to study business-content courses in that language.

Additional grants are being pursued with the goal of winning designation for Virginia Tech as a U.S. Department of Education Center for International Business Education and Research.

Bixler, Bostian named alumni distinguished professors by board

By Jean Elliott and Liz Crumbley

Jacqueline Bixler, professor of Spanish in the College of Liberal Arts and Human Sciences, and Charles Bostian, a professor of electrical and computer engineering in the College of Engineering, have been appointed alumni distinguished professors by the Board of Visitors.

The rank of alumni distinguished professor is reserved for select faculty members who have made long-term and outstanding contributions to the instructional program of the university, thus influencing the lives of generations of alumni.

Bixler, a faculty member at Virginia Tech since 1980, has been continually lauded as a superb teacher and scholar. She has earned international recognition from her peers and the overwhelming gratitude and affection of

her students and colleagues. Bixler has been the recipient of the university's prestigious Alumni Award for Teaching excellence, the Diggs Teaching Scholar Award, and four Certificates of Teaching Excellence. She is also a member of the Academy of Teaching Excellence.

Innovative in her approach to teaching, Bixler successfully coaches students to move beyond their self-imposed limitations. Her success in working with students regardless of major has led many students in other disciplines to double major or minor in Spanish, adding language to their crowded schedules because she has turned them onto the richness of Spanish language, culture, and literature. Recently, Bixler became coordinator of the master's program in area studies, expanding the number of students enrolled in the option and

formalizing the program structure.

Bixler has earned international respect for her scholarly work in Latin American theatre. She is particularly known for her work on Emilio Carballido, Mexico's leading playwright of the 20th century.

Bostian has been a leader in forging the university's pre-eminent wireless-communications program since joining the faculty in 1969. For 16 years, he headed the Satellite Communication Group, and in 1993 he became the founding director of the Center for Wireless Telecommunications.

A member of the Academy of Teaching Excellence and a recipient of the Wine Award for Teaching Excellence, Bostian has taught more than 4,000 students in electrical-engineering courses. During his teaching career,

Bostian has initiated courses in radio-wave propagation and satellite communications, as well as an honors course in telecommunications. He is the co-author of the most widely used textbooks in both satellite communications and radio-frequency design.

Bostian also has directed numerous graduate students to completion of their master's degrees and doctorates and has served as principal investigator on research projects totaling \$5.8 million in funding.

Before his appointment as an alumni distinguished professor, Bostian held the Clayton Ayre Professorship of Electrical and Computer Engineering. He is a fellow of the Institute of Electrical and Electronics Engineers and the Institute of Electrical and Electronics Engineers.

PERSONNEL SERVICES INFORMATION

Authorized Closings and Designation of Emergency Personnel

In preparation for the winter season, Personnel Services is providing fact sheets to remind supervisors and employees of the university's policy on closings and to facilitate departmental identification of employees identified as "emergency personnel." Supervisors are requested to share the fact sheets with all employees in their departments.

Identification of Emergency Personnel

Supervisors should complete the emergency-personnel roster. Once completed, employees should be informed and a copy posted of the roster and any emergency communication plan where employees have easy access. The emergency-personnel roster may be updated as appropriate during the year. Do not return the roster to Personnel Services.

Department heads should develop a communication plan for employees to

follow for emergency situations. In doing so, managers should anticipate the needs of essential operations, especially those of employees with alternate work schedules (i.e., shift work and weekends); organize a telephone tree; and share detailed instructions to ensure adequate coverage and clear communications.

This is particularly important when the identification of emergency employees is contingent upon the circumstances of the closing and are, thus, subject to change.

When Virginia Tech Remains Open During Inclement Weather

Supervisors should encourage employees to share information with their supervisors about the roads they must

travel and the distance from home to work so management is aware of potential hazards that could keep them from reaching their place of work in inclement weather. If employees find themselves in situations where they feel their safety may be compromised, they are strongly encouraged to make reasonable and rational choices when deciding whether to come to work or stay home when the university remains open. These decisions must, however, be communicated with the supervisor as soon as possible.

Non-emergency personnel who anticipate transportation difficulties due to inclement weather conditions when the university remains open are urged to seek permission from supervisors to shorten their normal work shift through the use of

accrued leave. Supervisors should make every effort to accommodate these requests.

Employees who do not report to work as scheduled must charge time missed to annual, compensatory or overtime leave, sick, or leave without pay as appropriate, unless the supervisor can adjust the hours of work in the same work week to make up for the missed hours. Supervisors may also allow employees up to a maximum of one hour past the start of their normal shift to report to work.

Information on closings may be found in Policy 4305, Authorized Closings, available on the university web site at <http://www.policies.vt.edu/4305.pdf>.

For more information, contact Lou Ann Phipps at 1-7784 or e-mail laphipps@vt.edu.

Natural-resources program addresses federal staff shortage

By Meredith Long, Public Affairs intern

The 35- to 50-percent projection of government employees (1.6 million full-time workers) in the natural-resources profession retiring within the next several years has prompted the College of Natural Resources to focus its Northern Virginia program to meet the upcoming educational needs.

"In addition to a major expansion of distance-learning offerings, we are starting a master's in natural resources to meet the technical brain drain quickly coming with many retirements in the nation's capital, which is the headquarters for federal and many non-profit natural-resource agencies," said David Trauger, director of Virginia Tech's natural-resources program at the Northern Virginia campus.

"The timing is perfect to grow our program," he said, "and students are recognizing the local opportunities that are available. Our hallmark is flexibility, so we can tailor the program to meet specific needs of the mid-career student."

Trauger, who is in his third year as program director, said, "Our courses focus on sustainable development in urban environments and sustainable management of natural resources on adjacent rural lands."

The program offers a master of forestry and now a master of natural resources, as well as a certificate of graduate study in natural resources, which is often the best way for a working professional to start.

With an enrollment of 63 students during the spring of 2003, the program has grown rapidly since its establishment in 1997 and is expected to reach 150 soon. Trauger sees the Northern Virginia campus as very different from the Blacksburg campus. "We have some students who have just received their undergraduate degree, but most of our students are older adults who have either been working in or are moving over into the profession," he said.

Trauger works with each student individually to design a course plan to meet his or her needs and expectations. "Offering this program in the capital region where it is needed makes a difference in teaching and research," Trauger said. The D.C. area continues to be one of the most rapidly developing areas in the United States.

"A large percentage of these students will be transitioning from other disciplines, which is good for the profession. Conservation issues are complex and finding solutions will require all disciplines," said Trauger, who spent 32 years with the Department of the Interior's

U.S. Geological Survey and Fish and Wildlife Service.

Teaching, research, and outreach are the main interests of the program with a focus on sustainable natural resources in rapidly urbanizing environments. Courses address the complexities of ecological issues related to land and natural resources in rural-urban transitional environments in Northern Virginia. The Natural Resources Program is located in close proximity with the related Virginia Tech programs in urban and regional planning, landscape architecture, and public administration and policy.

"A new partnership with the USDA's Forest Service and Virginia Tech's College of Natural Resources and its Institute for Distance and Distributed Learning will have global impact on developing the next generation of natural resources leaders," Trauger said. "In the next three years, we will have the best professors and courses in the nation on the distance learning website."

Trauger has been working with the Renewable Natural Resources Foundation and the American Association for the Advancement of Science, which held a conference in October on Personal Trends, Education Policy, and Evolving Roles of Federal and State Natural Resources Agencies.

Virginia
Tech

VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY

Spectrum, a faculty-staff tabloid, is published each Friday during the academic year, with the exception of certain holidays, exam weeks, and the summer. Copy deadline is noon Friday. No advertising is accepted.

Spectrum is a non-profit publication of the Office of University Relations: Lawrence G. Hincker, associate vice president for University Relations; Mark Owczarski, director of news and information.

Editor

John Ashby, 1-6961

Interim News Bureau Manager

Ada Hatzios, 1-8508

Production Manager

Melinda Shaver, 1-8524

Business Manager

Paula Vaught, 1-6333

Letters to the editor and questions for "Ask *Spectrum*" should be addressed to the editor, 102 Media Building, Virginia Tech, Blacksburg, VA 24061.

Electronic Spectrum. <http://www.spectrum.vt.edu>

Virginia Tech does not discriminate against employees, students, or applicants on the basis of race, color, gender, sexual orientation, disability, age, veteran status, national origin, religion, or political affiliation. Anyone having questions concerning discrimination or accessibility regarding the programs described in this newspaper should contact the Equal Opportunity Affirmative Action Office: 540-231-7500 (v), 540-231-9460 (TTY).

ACTIVITIES

EVENTS

Friday, 14

Pay Date for Faculty and Staff Members.

TA Event, 11 a.m. to 1 p.m. and 3 to 5 p.m., Owens Banquet Hall: "Creating Connections: Building Community and Identity through Diversity."

YMCA Crafts Fair (Through 11-16).

TA Event, 8 p.m., Squires Studio Theatre: "Hamlet, Prince of Denmark."

Saturday, 15

"Pets with Santa Pictures," 9 a.m. to 3 p.m., room 125 VMRCVM: Domestic pets only; no exotics.

Football, 1 p.m.: At Temple.

TA Event, 2 to 5 p.m., Christ Episcopal Church: "Creating Connections: Building Community and Identity through Diversity."

TA Event, 2 p.m., Squires Studio Theatre: "Hamlet, Prince of Denmark." (Through 11-16).

Music Event, 8 p.m., Blacksburg Presbyterian Church: University Symphonic Choir/Blacksburg Master Chorale Joint Concert.

Monday, 17

Women in Mathematics Career Day, 9:15 a.m. to 12:30 p.m., Math Emporium.

University Council, 3 to 5 p.m., 1045 Pamplin.

Tuesday, 18

Faculty Senate, 7 to 9 p.m., 32 Pamplin.

Music Event, 8 p.m., Squires Old Dominion Ballroom: Symphonic Wind Ensemble Concert.

TA Event, 8 p.m., Squires Studio Theatre: Hamlet, "Prince of Denmark." (Through 11-21)

Wednesday, 19

On-campus Bloodmobile (Through 11-20).

"With Good Reason," 7:30 p.m., WVTF.

Music Event, 8 p.m., Squires Haymarket Theatre: University Jazz Ensemble Concert.

Thursday, 20

Staff Senate, noon, 1810 Litton Reaves.

Friday, 21

William Preston Society Weekend.

Saturday, 22

Football, TBA: Lane Stadium: Boston College.

Tuesday, 25

Diversity Awareness Workshop, 9 a.m. to noon, DBHCC conference room F.

Wednesday, 26

"With Good Reason," 7:30 p.m., WVTF.

Thanksgiving Holiday. University Closes at Noon.

Thursday, 27

Thanksgiving Holiday.

Friday, 28

Thanksgiving Holiday.

Saturday, 29

Football, TBA: Lane Stadium: UVa.

DECEMBER

Monday, 1

Pay Date for Faculty and Staff Members.

University Council, 3 to 5 p.m., 1045 Pamplin.

Wednesday, 3

VTU, 7:30 p.m., Burruss auditorium: Moscow Boys Choir.

Friday, 5

VTU, 8 p.m., Burruss auditorium: Lonestar.

SEMINARS

Friday, 14

MCBB, 12:20 to 1:10 p.m., Fralin auditorium: Jacky Snoep, University of Stellenbosch, South Africa.

Geosciences, 3:30 p.m., 4069 Derring: Stephen Marshak, University of Illinois-Urbana-Champaign.

MSE, 3:30 p.m., 100 Hancock: TBA.

Philosophy/STS, 4 p.m., 225 Major Williams: Alan Chalmers, University of Pittsburgh.

Monday, 17

Geosciences, 3:30 p.m., 4069 Derring: David Bowen, AAPG.

Biochemistry, 4 p.m., 223 Engel: Ken F. Jarrell, Queen's University, Canada.

Thursday, 20

Statistics, 3:45 p.m., 409 Hutcheson: Bruce Weir.

Friday, 21

Geosciences, 3:30 p.m., 4069 Derring: Gary Ernst, Stanford.

MSE, 3:30 p.m., 100 Hancock: Feiming Bai, Todd Heil.

Friday, 28

MCBB, 12:20 to 1:10 p.m., Fralin auditorium, Edward Wojcik.

DECEMBER

Monday, 1

Biochemistry, 4 p.m., 223 Engel: Jake Tu.

Thursday, 4

Statistics, 3:45 p.m., 409 Hutcheson: Tom Boucher.

Friday, 5

MCBB, 12:20 to 1:10 p.m., Fralin auditorium, Debbie Nickerson, University of Washington School of Medicine.

MSE, 3:30 p.m., 100 Hancock: TBA.

BULLETINS

Diversity Awareness Workshop session set

There will be an open session of the Diversity Awareness Workshop Tuesday, Nov. 25 from 9 a.m. until noon in Donaldson Brown conference room F for individuals interested in participating.

'Hokies for Hungry' food drive conducted

For the third consecutive year, the employees of Information Systems and Computing (ISC) and employees of Communication Network Services (CNS) are collecting food items for the annual "Hokies for the Hungry" food drive conducted by the Marching Virginians band. On Friday, Nov. 21, two band members will join ISC and CNS employees to accept the food contributions on their behalf.

In addition to the efforts of the employees of ISC and CNS, the Marching Virginians are asking fans to bring canned food items to the final home football home game with Boston College. The band has a goal of one food item per seat in Lane Stadium. For more information, call 1-7925.

Women in Mathematics: Career Day scheduled

Virginia Tech faculty members, students, and alumnae will join approximately 250 young women Monday, Nov. 17, for an intergenerational, multimedia, mathematical celebration. Sixth graders from 21 area schools have been invited to participate.

Women in Mathematics: Career Day at Virginia Tech will begin at 9:30 a.m. with a welcome session at the Math Emporium, featuring Beville Watford, associate dean for academic affairs in the College of Engineering, and John Rossi, head of the Department of Mathematics. From 9:50 to 11:05 a.m., students will participate in two 35-minute sessions and then break for a pizza lunch. From 11:50 a.m. to 12:25 p.m., students will participate in the final session.

For more information, contact Susan Anderson (1-8041), e-mail anderson@math.vt.edu, or mail c/o Mathematics Department, 0123.

Phonebook, Campus Directory recycling begun

A labeled collection box for phonebook and *Campus Directory* recycling has been stationed, as in past years, adjacent to the other Virginia Tech Recycling bins, in the southwest corner of the Overflow Lot (immediately west of the Duck Pond). The collection box will remain in this location through the end of February, 2004. Recycle only phonebooks and *Campus Directories* into the appropriate collection box.

Local calls extended to Pulaski

Telephone calls placed to Pulaski, Virginia, (440, 980, and 994 exchanges) from Blacksburg and Christiansburg are now local calls. The Pulaski local calling area concurrently now includes Blacksburg and Christiansburg. Telephone calls from

the Virginia Tech campus can be completed by dialing "9" and the seven-digit telephone number. Customers no longer have to dial 10 digits to reach numbers in these areas.

More information is available at <http://www.cns.vt.edu/html/news/pulaski.html> or by contacting Communications Network Services at 1-6460.

Faculty Women's Club to meet

The Virginia Tech Faculty Women's Club Luncheon will be November 19 at noon at the Sheraton Four Points Hotel. The program, "Irish Rebels in Virginia 1790—1820," will be presented by Katharine Brown, director of research and collections at the Museum of American Frontier Culture in Staunton.

VTFWC membership is open to women and wives of administration, instructional, research and Extension faculty and staff members. Retirees, wives or widows of retirees, and mothers and mothers-in-law of faculty and staff members are welcome.

The purpose of the VTFWC is to provide social and intellectual activities to its members, to promote Virginia Tech, and to offer scholarship opportunities to deserving students. Members participate in interest groups, day trips, and luncheons featuring diverse speakers.

For more information, contact Carol Sorensen at 951-1247.

The next issue of *Spectrum* will be December 5.
Happy Thanksgiving.

Grant raises awareness about violence against women

By Clara B. Cox

The U.S. Department of Justice has awarded Virginia Tech's Women's Center and the university's Office of Judicial Affairs a \$300,000 grant, renewing an earlier Violence Against Women Act (VAWA) grant to raise awareness on campus about sexual assault, relationship violence, stalking and cyberstalking. The first VAWA grant for two years was received in 2001; the renewal will extend it to 2005.

"Over the past two years, we have made great strides to help end violence against women at Virginia Tech through awareness training for faculty and staff members and via theatre productions for the campus and local communities. We continue to facilitate presentations for classes, residence halls and

various organizations," said Maureen Lazar, victim services outreach coordinator for the Women's Center.

"We also continue to work at increasing the number of cases adjudicated both on and off campus," she said.

According to Lazar, the grant has allowed the university to reach 1,700 students and members of the faculty and staff via the theatre productions and 30,000 professors, staff members, students, and families of students through the distribution of information.

"Over the past two years, more than 150 students, faculty and staff members have come to the Women's Center for counseling services, and our Stop Abuse web site, which went on line in September 2002, has attracted more than 6,800 visits. We are excited that we have an

additional two years to expand upon these numbers," Lazar said.

Lazar expressed appreciation to "those individuals both on and off campus who have collaborated with us, guided us, and supported all of our efforts to this point. We look forward to future collaborations to help end violence against women here at Virginia Tech."

She also asked the campus community to provide suggestions for and/or feedback on programs that will help end violence against women.

Information about VAWA programs is available on the Women's Center web site at <http://www.womenscenter.vt.edu> and the stop-abuse web site at <http://www.stopabuse.vt.edu>.

Economic-development programs assist communities

By Susan B. Felker

When Virginia Tech graduate students travel to Appomattox this semester, they will not be studying Civil War battlefields. Rather, they will be examining operations of town departments by invitation of local officials.

These unusual excursions are part of a Virginia Tech service-learning course, "Performance Measurement and Benchmarking (PMB) for Local Government," taught by Office of Economic Development faculty member Chad Miller in collaboration with the university's Center for Public Administration and Policy (CPAP).

The course emphasizes service-learning opportunities for students and expands the university's technical-assistance and community-development efforts, which are key components of Tech's 2001-2006 Strategic Plan.

"The effort to provide economic development assistance to Virginia communities is an important element of the university's land-grant mission," said Ted Settle, director of Tech's Office of Economic Development (OED), which is part of Outreach and International Affairs. "But clearly our students and faculty members benefit as well by learning from communities about their specific needs and about the changing economic picture in the commonwealth."

Miller modeled the course upon the successful "International Market Planning Program," a course/project offered in the Pamplin College of Business. Instead of an export plan for a business, the student teams in the business course provided a thorough examination of local government. Said Miller, "this gives students an opportunity to take the advanced learning they receive in their graduate coursework and apply it in a local government and community context. In this way, both the community and students get to benefit from the interaction."

Communities pay a small fee that covers transportation, course materials for students, and other overhead expenses. In previous semesters, students worked with local governments in Smyth, Pulaski and Nelson counties.

During the spring semester of 2003, Miller and the student team worked in Nelson County and produced a 64-page report that offered analysis and benchmarking of county-government operations in three departments. Nelson County officials had approached Virginia Tech in 2002 about providing assistance with planning development and improving operations. A predominately rural area centrally located between the cities of Charlottesville, Lynchburg and Staunton, Nelson County has an economy based on agriculture and natural resources, with a growing tourism industry stimulated by the successful Wintergreen Resort.

Richard Zody, a professor in Virginia Tech's department of urban affairs and planning (UAP), conducted a strategic planning session for the county's board of supervisors in 2002 that led to development of a new comprehensive plan. County officials then turned to Tech for guidance in how to most effectively implement the plan.

Once the student-led study was completed, Nelson County arranged for Miller and OED faculty member John Aughenbaugh to provide a day-long training program on the PMB for most of its local government departments. This training will enable the county government to implement the recommendations that the students made and give the departmental staff the training needed

(See *ECONOMIC-DEVELOPMENT* on 8)

Nanoscience and technology important focus for researchers

By Susan Trulove

Since President Bill Clinton announced "a major new national nanotechnology initiative" in 2000, researchers at Virginia Tech have made important advancements, the Board of Visitors learned at its recent meeting.

A nanometer is about the size of 10 atoms. Nano-scale materials offer new or enhanced mechanical, electronic, magnetic, optical, solubility, and spatial-resolution properties. "Scientists are following nature's example in assembly of materials atom by atom. It's very efficient," said Robert Porter, research program development manager and Virginia Tech's representative on the steering committee of the state-wide nanotechnology initiative, INanoVa. An oft-cited example of the potential of nanotechnology, including by Clinton, is replacing the capacity of today's room-sized supercomputers with a molecular device the size of a sugar cube.

However, the fact that materials behave differently at the molecular and sub-molecular level than they do in bulk means that many applications will come only after basic research to understand and predict the properties and functions of nano-scale materials and devices.

Materials Science and Engineering Department Head David Clark and Physics Department Chair John Ficenec told the board that, having received significant funding and begun work in such fields as

biomedicine, electronics, and materials, the university's nanotechnology initiative is being "ramped up."

"Our goal is to position Virginia Tech to compete for multi-million dollar grants," Clark said. He told the Board of Visitors that the focus for nanotechnology research at Virginia Tech is biomedicine, defense and homeland security, electronics and information technology, and energy and environment applications.

"The university has a solid foundation and a significant portion of the science and engineering faculty oriented to the nanotechnology revolution," Ficenec said. "We have made significant contributions. Now, with searches under way in the Colleges of Engineering and Sciences for 12 additional faculty members who will be doing nanoscience and technology research, Virginia Tech is well-positioned to be a leader in nanotechnology."

Chemistry Professor Harry Dorn is a nanoscience pioneer. When a new form of carbon, a hollow molecule named after architect Buckminster Fuller, was discovered in the 1986, Dorn and other scientists world-wide began to try to put atoms inside of it. In 1999, Dorn reported in *Nature* that he and his post-doctoral fellow, Steven Stevenson, had discovered a method for inserting metal atoms inside of fullerenes, creating a novel family of molecules and the architecture for a new field of chemistry.

Since 1999, Dorn has received more than \$435,000 in research funding—\$222,000 from NASA, and his filled fullerenes are now being

developed by Luna nanoMaterials of Blacksburg as improved MRI reagents. The next goal for scientist around the world was to enable fullerenes to travel through the blood stream.

Last year, Dorn's Ph.D. student Erick B. Iezzi developed the first organic derivative of a fullerene. He figured out how to attach an organic group to the carbon molecule, bringing fullerenes a step closer to biological applications, such as the delivery of medicine or radioactive material to a disease site. Iezzi received a \$20,000 Graduate Fellowship from the American Chemical Society to continue his work.

Clark told the Board of Visitors that the benefits that accrue to the university as a result of leadership in nanotechnology research include national and international prestige; enhanced ability to recruit outstanding faculty members; more applications from doctoral students wanting to study nanoscience and technology and affiliated fields; more research funding, which supports students, pays for equipment, and provides overhead for university research space, including labs where undergraduate and graduate students gain experience; new knowledge for the scientific community, education, and public use; and intellectual properties that offer the potential of technology transfer, spin-off businesses, new products, and reinvestment in research.

"Nanotechnology is the next scientific epoch. Its impact will be pervasive. We are on the cusp of a new age," Porter said.

Mussel researcher awarded Meritorious Service Award

By Hilary Fussell, Public Affairs assistant

Richard J. Neves, professor of fisheries and wildlife science in the College of Natural Resources, has been awarded the Meritorious Service Award from the U. S. Department of the Interior in recognition of his outstanding contributions to the U.S. Geological Survey in the conservation of freshwater mussels in North America.

Previously honored by The Nature Conservancy for his fruitful pioneering efforts, Neves established one of the first and most influential research and training programs on freshwater-mussel biology and conservation. His work, which has

documented the status of many species of mussels and other aquatic invertebrates, led to the discovery of the life cycles, intermediate hosts, and reproductive processes and triggers for 18 species of freshwater mussels. After discovering the fish host species for the intermediate life stages of several mussel species, Neves developed laboratory-culture techniques, and hatchery techniques for propagating 11 species.

Neves also pioneered the concept of conservation refugia (areas unharmed ecologically that provide goal habitats) for imperiled mussels, and using holding ponds and hatcheries as temporary, long-term holding

places for mussels facing such threats as pollution and invasive zebra mussels. Such hatcheries have become integral parts of strategic conservation plans for freshwater mussels. State and federal hatcheries are now holding and propagating several endangered mussels using techniques and facility designs developed by Neves.

A faculty member of the College of Natural Resources since 1978, Neves continues to teach and research the biology and conservation of freshwater mussels, endangered aquatic species, restoration and recovery of aquatic ecosystems, and propagation of endangered mollusks.

Science Outreach Co-op and Museum partners with researchers

By Susan Trulove

The Virginia Tech Museum of Natural History is gone but its outreach program is not. In fact, as the Science Outreach Co-op and Museum (SOCM), the emphasis is on cooperation, said Director Michael S. Rosenzweig.

As a center under the Office of the Vice Provost for Research, "Our mission is to be a bridge between university researchers and the public, especially the K-12 community. In particular, we are available to add value to research proposals. When researchers need to include an outreach piece in a proposal to a funding agency, we will provide the public outreach expertise," Rosenzweig said.

For example, M.A. Saghai Maroof, professor of genomics in the crop and soil environmental sciences department, is one of the participants in a multi-institutional NSF grant (\$2.5 million) for a comparative genomics project—to compare DNA-sequence information of several legumes, including soybean. As the outreach portion of the project,

SOCM is preparing kits that K-12 teachers can use to teach plant biology so students know how to recognize different types of plants at the character level. SOCM will also train the teachers on how to use the kits, which will meet Virginia Standard of Learning (SOL) requirements, and will help arrange tours to Saghai Maroof's genomics laboratory. The center's share of the grant is \$22,000.

"The public-outreach component of the proposal, including SOCM, was important to the attention the proposal received from reviewers," Saghai Maroof said. "Working with outreach personnel enabled us to provide a proven, professional public-education product."

The NSF is placing increasing emphasis on education, outreach, and diversity, says Research Program Development Manager Robert Porter. "And it's not just a sidebar. As of a year ago, if you don't have a 'broader-impact' piece in your proposal, it will be returned without being reviewed."

He said that until 1997, the criterion for

research was "intellectual merit." Then the "broader-impacts" area was added. "For example, NSF wants to see integration of education with research, involvement of under-represented groups, benefits to society, and enhancement of the research infrastructure at your university," Porter said.

For the past 13 years, in addition to outreach, the Virginia Tech Museum of Natural History managed more than a million specimens and prepared exhibits. But education was always a major activity, Rosenzweig said. "With Llyn Sharp as assistant director and education specialist, we directly served 20,000 people a year."

In addition to local schools, the museum worked with teachers state wide through conferences, in-service training, continuing education, summer camps, weekend camps, classroom programs, and such educational packages as the Save our Streams (SOS) program, Model Inquiries into Nature in the Schoolyard (MINTS), and other educational kits (listed at www.socm.vt.edu/erc.html)

correlated to SOL requirements.

"SOCM hopes to help this network of educators access other Virginia Tech programs and we will continue to link Virginia teachers to national environmental science curriculum programs, such as GLOBE and Project WET," Rosenzweig said.

"We've been working with teachers and researchers all along, but not under this model of collaboration with researchers."

The collections have returned to the administration of their home departments, or to the Virginia Museum of Natural History in Martinsville. From SOCM'S new headquarters on the second floor of Derring Hall, Rosenzweig and Sharp will expand in-service teacher training and loans of hands-on kits coordinated to the SOL's, but helping faculty members qualify for sponsored research, by including outreach in their proposals, is a priority," Rosenzweig said.

For proposal support, contact Rosenzweig at ruppia@vt.edu or 1-5360.

EMPLOYMENT

The following classified positions are currently available. Position details, specific application procedures/position-closing dates may be found on Personnel Services web site <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.

CLASSIFIED POSITIONS

FULL TIME

Food-service positions available.
1st Baker, 000996H, PB 2, Student Programs.
1st Cook, 002131H, PB 2, Student Programs.
Administrative Support Specialist, 007627B, PB 3, Engineering.
Anesthesia Technician, 002998M, PB 4, VTH.
Anesthesia Technician, 008097C, PB 4, VTH.
Assistant Manager, 000526H, PB 3, Student Programs.
Biochemist, 008207K, PB 3, VBI.
Budget/Contracts Coordinator, 007325S, PB 4, VTTI.
Cash Office Specialist, 002803H, PB 2, Student Programs.
Executive Chef, 007008H, PB 4, Dining Services.
Financial Analyst Senior, 002169F, PB 4, University Controller.
Fire Protection Technician, 000192G, PB 4, Physical Plant.
Furnishings Manager, 007291H, PB 3, Student Programs.
Housekeeping Supervisor, 000609H, PB 2, Student Programs.
Housekeeping Supervisor—Utilities Special Projects Crew, 001077H, PB

2, Student Programs.
Housekeeping Worker, P04000H, PB 1, Student Programs.
HVAC Installation/Repair Technician, 000634F, PB 3, Physical Plant.
Interdisciplinary Studies Staff Support, 008211B, PB 3, Interdisciplinary Studies.
Lab Specialist, 008224M, PB 3, FWS.
Lab Specialist Sr., 002465B, PB 4, MME.
Laboratory Specialist, 007439M, PB 3, Biochemistry.
Medical Technologist, 002651C, PB 4, VTH.
Office Assistant, 000582H, PB 2, Student Programs.
Painter, 008161H, PB 3, Student Programs.
Personnel Assistant, 007862M, PB 3, CALS.
Plumber Steamfitter, 001767F, PB 3, Mechanical Utilities.
Plumber Steamfitter, 001844F, PB 3, Physical Plant.
Powerline Worker, 006524F, PB 3, Facilities.
Small Animal ICU Technician, 008095C, PB 4, VTH.
Staff Architect, 008079F, PB 5, University Architect.
Student Services Assistant, W023621G, PB 3, Graduate School.
Technical Communicator, 008225S, PB 4, VTTI.
Telefund Administrative Supervisor, 001421S, PB 3, University Development.
Telefund Coordinator, 007628S, PB 3, University Development.
Trades Utilities Master Mechanic, 002272F, PB 4, Physical Plant.
TV Producer/Director, 002357A, PB 4, VBS.
Unit Manager, 007961H, PB 5, Student Programs.

PART TIME

Coordinator, Note Takers/Readers, W023620S, PB 3, SSD.
Dairy Technician, W023622M, PB 2, Dairy Science.

Educational Technologies Specialist, W023602M, PB 3, CVM.
Health/Activity Assistant, W022916B, PB 3, ADS.
Laboratory Specialist, W023550M, PB 3, CVM.
Laboratory Specialist, W023608B, PB 3, Chemistry.
Public Relations Assistant, W023546H, PB 3, Student Programs.
Quarry Mason, W023368F, PB 3, Physical Plant.
Radiologic Technologist, W022238M, PB 3, Schiffert Center.
Receptionist/Office Assistant, W023612K, PB 2, VBI.
Research Assistant, W023614M, PB 4, Horticulture.
Trades/Utilities Helper, 020219H, PB 1, Student Programs.

OFF CAMPUS

Clinical Supply/Biomed Technician, 008215M, PB 2, EMC.
Director of Internal Audit, CCCCC, PB 0.
Director of Nursing, 002178M, PB 4, EMC.
Nursing Shift Supervisor, 002996M, PB 2, EMC.
Operating Room Technician, 000542M, PB 2, CVM.
Operating Room Technician, 008144M, PB 2, CVM.
Program Support Technician, CCCCC, PB 0, VTF.
Radio News Anchor/Producer/Reporter, 002323S, PB 4, WVTF, UR.
Student Enrollment Assistant, 002089B, PB 3, NVC.
Veterinary Technician, 006669M, PB 4, EMC.
Wildlife Worker, 006643B, PB 2, Biology.

FACULTY POSITIONS

INSTRUCTIONAL

Department of Sociology. Assistant to Associate Professor. Criminology, nine-month position. Contact: Donald Shoemaker, 0137.

Department of Sociology. Assistant to Associate Professor. Sociology of Health, nine-month position. Contact: Michael Hughes, 0137.
Department of Fisheries/Wildlife Sciences. Assistant to Associate Professor. Marine Resources Modeling. Contact: Eric Hallerman, 0321.

NON-INSTRUCTIONAL

Virginia Bioinformatics Institute. Faculty/Research. Immune Systems Simulation Programmer. Contact: Human Resources/Hiring, 0477.
Virginia Bioinformatics Institute. Research Associate in Microfluidics and Mass Spectrometry Specialist. Contact: Human Resources/Hiring, 0477.
Materials Research Institute. D. G. Baird Research Scientist. Contact: Laurie Good, 0344.
Fralin Biotechnology Center. PREP Coordinator/Project Associate. Contact: Erin Dolan, 0346.
Department of Forestry. Research Associate. Forest Soils/Hydrology. Contact: Harold Burkhart, 0324.
Director, Virginia Tech Roanoke Center. Contact: Jane Swan, 0132.
VCE. Extension Agent. Crop/Soil Sciences. Cumberland, Prince Edward/Buckingham Counties. Contact: Charlie Stallings, 0437.
VCE. Extension Agent. Agriculture/Natural Resources. Albemarle County. Contact: Charlie Stallings, 0437.
VCE. Extension Agent. Family/Community Services. City of Petersburg. Contact: Eleanor Schlenker, 0437.
VCE. Extension Agent. Agriculture/Natural Resources, Environmental Horticulture. Fauquier County. Contact: Judith Jones, 0437.
VCE. Extension Agent. 4-H Youth Development. City of Virginia Beach. Contact: Robert Ray Meadows, 0437.

University researchers get NSF grant to develop archaeology digital library

By Sookhan Ho

A research team from Virginia Tech and Case Western Reserve University has received a National Science Foundation grant to develop a digital library for archaeology.

Edward Fox, professor of computer science, and Weiguo "Patrick" Fan, assistant professor of accounting and information systems, will serve as the technical sub-contractors on the project, which has received an initial one-year grant of about \$56,000 from the NSF, with another \$330,000 expected over the next two years.

Archaeological data are currently scattered across various intranet and web sites, and new information is constantly being unearthed from active excavation sites, Fan said. "It is quite a challenge for archaeologists to manage the process of archiving and disseminating data."

The proposed digital library, he said, "will, for the first time, enable archaeologists, humanists, and social scientists to gather, preserve, and publicize historical and real-time data for research, education, and public information in a timely and universally accessible fashion."

The library will focus on ancient Near Eastern studies and will have as its core components two electronic tools that the researchers will develop: DigKit and DigBase.

DigKit would be a field tool for collecting and recording data during surveys and excavations. Details from the primary records compiled on a site, for example, could be shared immediately among excavations via a laptop, Fan said. "It would turn any dig site into an open repository, part of a growing network of archaeological archives."

Data from various sources, whether excavation sites or web sites, would be collected and archived in DigBase. DigBase would be an

enormous catalog, Fan said, with "one-stop shopping" services that would allow users to not only search and browse, but eventually to also query primary records, rate and review artifacts, and receive responses tailored to the user's particular interests, much like with consumer-product web sites such as Amazon.com or Epinions.com.

Fox has led work over the last five years on the "5S" (societies, scenarios, spaces, structures, and streams) approach to developing digital libraries and other types of information systems. "Building upon a formal mathematical framework, this effort hopes to make it easy to construct powerful and usable systems that can handle a wide variety of applications," Fox said. "If 5S can help in the field of archaeology, with all its complexities, then certainly it should be of benefit for many, many other domains."

During development, the digital library will be housed in a server at Case Western Reserve's University Library, where Joanne Eustis, who holds a Ph.D. from Virginia Tech, serves as director and James Flanagan, principal investigator for the grant, is professor emeritus.

When completed, the digital library will move to Vanderbilt University's Electronic Tools and Ancient Near Eastern Archives, which is supported by an academic consortium that includes Virginia Tech. Fan, who will help design and implement the library's system architecture, said the library will make "real-time archaeology possible, allowing us to understand past lives and processes in a very timely fashion."

As the library will be open to the general public, not just scientists, he said, it may also foster the development of a larger and more diverse community of those interested in archaeology.

Virginia Tech Magazine described him as "as a good listener, perhaps from the many years of counseling individuals and advising campus leaders. He listens intently, hoping to hear a thought that solidifies his own perceptions, or that will shed light on others."

Omicron Delta Kappa, the honorary leadership society, established the Alfred C. Payne Service Award to honor him for his work.

Payne published two books compiled from thousands of his prayers: *A University at Prayer*, and *A Community at Prayer*.

by the Ad Hoc Committee on Revisions to the Board of Visitors' By-laws was approved to amend the Board of Visitors' by-laws. Among these amendments is to require a minimum of three working days be given board members to review amendments or additions to agenda items for its meetings. Other updates and clarifications to the by-laws were approved to conform to statutory changes and earlier board resolutions.

Resolutions were also approved to formally adopt the restructuring and renaming of academic units, recognize Exemplary Department Awards, and increase wages to graduate assistants by 2.25 percent in the 2003-04 academic year.

The board approved the appointment of two faculty members as alumni distinguished professors: Jacqueline Bixler, professor of Spanish in the College of Liberal Arts and Human Sciences, and Charles Bostian, a professor of electrical and computer engineering in the College of Engineering. Emeritus status was granted for six university professors and administrators.

Tech recognized for disability-friendly practices

By Mark Owczarski

Virginia Tech has been recognized for excellence in providing disability-friendly practices toward people with disabilities.

At an awards ceremony held on campus October 29, university administrators were presented with the Disability-Friendly Business Award from the Virginia Department of Rehabilitative Services and the Virginia Business Leadership Network. The university was recognized for its efforts in actively

recruiting persons with disabilities in its workforce and for making the campus accessible to employees and students with disabilities.

Delegate David Nutter and Muriel Flynn, an employment specialist in the university's Personnel Services office, accepted the award on behalf of the university.

Virginia Tech joined a list of more than 80 businesses state-wide that have gone beyond

(See *RECOGNIZED* on 8)

Owczarski named news, information director

By Ada Hatzios

Mark Owczarski, former director of communications programs at Syracuse University, has been named director of news and information at Virginia Tech.

In his new position, Owczarski will provide leadership for Virginia Tech's media-relations program and oversee the development of the university's web site.

Owczarski had served as director of

communications programs at Syracuse University since 1998. In that position, he oversaw the university's national media-relations program and several specific strategic-communications projects. From 1994 to 1998, he was director of college relations at Guilford College in Greensboro, N.C., and held media relations and publications positions at the State University of New York at Stony

(See *OWCZARSKI* on 8)

BIOMEDICAL

Continued from 1

university provost and vice president for academic affairs. "To advance scientifically and remain competitive, we must inspire and support collaborative efforts that unite researchers from across our university and beyond its walls."

IBPHS is the second major collaborative research institute formed by Virginia Tech in the past year. The Institute for Critical Technology and Applied Science (ICTAS) was created in 2002.

The new institute is designed to create a highly interactive intellectual environment for scholars and scientists from different areas and promote their success by increasing opportunities to compete for major funding from agencies such as the National Institutes of Health, according to Professor Janet Rankin of the Department of Human Nutrition, Foods and Exercise, and the institute's first interim director.

"This institute should build upon some of our current strengths and assist us in taking our research to a level where we are a major player in the biomedical and health research areas," Rankin said.

Rankin is directing the unit in concert with a stakeholder committee that consists of the deans of the four colleges that are principally involved with the new institute: Lay Nam Chang of the College of Science, Sharron Quisenberry of the College of Agriculture and Life Sciences, Gerhard Schurig, interim dean of the Virginia-Maryland Regional College of Veterinary Medicine, and Greg Brown of the College of Natural Resources. The leadership team, working closely with a nucleus of faculty researchers serving on a Faculty Scientific Council, will oversee the development of all aspects of the institute, including the initial programmatic emphasis.

Some of the institute's key operating strategies are to encourage communication and collaboration among current faculty members, provide support and coordination for multidisciplinary grants, and fund cluster-hires in collaboration with departments, she said. She said the institute will work closely with departments and colleges to insure that benefits are realized at all levels. The institute will also benefit from collaboration with external partners, including Wake Forest University, the Edward Via Virginia College of Osteopathic Medicine, and the Carilion

Biomedical Institute.

Initially, the institute will concentrate on two core areas: infectious diseases and immunology; and food, nutrition and health.

Several vaccine-development programs are under way in the Center for Molecular Medicine and Infectious Diseases (CIMMID), where several researchers are developing a new generation of genetically modified vaccines to protect animals and people from infectious diseases ranging from brucellosis to tularemia. CIMMID is also where Schurig and colleagues developed the RB-51 brucellosis vaccine, now considered the global "gold standard" of control.

Sponsored research in the area of immunology and infectious diseases has tripled from slightly more than \$2.3 million in 2000 to current funding of more than \$7 million in 2003, according to Schurig. Increased federal funding for bioterrorism-related research since the 2001 terrorist attacks has created fertile funding opportunities for increased work in this area, he said.

Similarly, the university has vast experience and faculty depth in the broad area of food, nutrition and health (FNH), according to Rankin. The overall goal of this program is to enhance human health through the consumption of improved foods and physical activity. Faculty members at the university are involved in the development of new genetic strains of crops and animals to improve disease resistance or other characteristics related to production.

Obesity is a national problem, and Tech has significant resources to bring to bear upon the issue, Rankin said. The institute may also look at programs designed to protect the nation from agro-terrorism. Possible approaches include work on the development of pathogen-resistant foods, improved processing, and surveillance systems for better tracking of infection outbreaks.

For now, IBPHS will occupy temporary facilities in the university's Corporate Research Center. But plans call for the institute to become physically integrated with a major life-sciences facility that will be constructed adjacent to the emerging Virginia Bioinformatics Institute and Litton-Reaves Hall.

Programmatic work is already under way at the research institute that is expected to play a major role in helping Virginia Tech attain its goal of becoming one of America's top-30 research universities.

PAYNE

Continued from 1

Upon that dedication, Virginia Tech's Board of Visitors recognized him for bringing to the university "the very model of spiritual care and generosity through his ecumenical love for our students, and his steadfast belief in the essential goodness of all those with whom he worked."

Although retired, "Al frequently dropped by to swap stories about working with students," said Ed Spencer, assistant vice president for student affairs. A 1995 profile in

BOV

Continued from 5

programs at the university. The committee reported the university's admissions process is compliant with the recent U.S. Supreme Court rulings and guidelines established by the Office of the Attorney General of the Commonwealth of Virginia, but that the university may have to modify privately funded scholarship and fellowships programs that are restricted to or express a preference for certain races or ethnic groups.

Continued work is needed to determine the impact of excluding race or ethnicity from the Multicultural Academic Opportunities Program (MAOP) selection criteria, and the university will continue to comply with federal grant requirements while federal sponsoring agencies modify their programs to comply with recent legal changes.

To facilitate further university community input on this issue, the committee held a campus open forum on the university's review of race-conscious programs on November 10.

In other actions, a resolution introduced

Former business school Dean Herbert Mitchell, 86

By Sookhan Ho

Herbert Hall "Bill" Mitchell, 86, the founding dean of Virginia Tech's business school, died October 30 in Tuscaloosa, Ala.

Mitchell, received a Ph.D. in economics from the University of North Carolina, Chapel Hill, in 1954, and taught at several universities before accepting the position of chairman of the Department of Business Administration at Virginia Polytechnic Institute in 1960. In 1961, he was appointed dean of the newly established business school, which had 28 faculty members and 823 students.

Mitchell served as dean for 20 years, during which time the business school became a college in the university and named its

building in honor of Robert B. Pamplin, a 1933 business graduate who later became chairman and chief executive officer of Georgia-Pacific Corporation. The college was renamed the Pamplin College of Business in 1986.

Mitchell was a member of the board of the American Assembly of Collegiate Schools of Business and served as its president in 1978.

Mitchell was named dean emeritus upon retirement in 1981. He returned to the University of Alabama, where he had received his bachelor's and master's degrees and had worked as an assistant dean, to serve as dean of the College of Commerce and Business Administration until 1986.

Vice President Emeritus Robert C. Heterick Jr., 67

Robert Cary Heterick Jr., vice president emeritus at Virginia Tech, died November 7. He was 67.

Heterick began a 33-year career at Virginia Tech in 1959 teaching in the Department of Civil Engineering. In 1968, he was named director of the University Computing Center. Under his leadership, Virginia Tech became one of the nation's leading universities committed to computing and among the many products developed in the computing center was the Virginia Tech Library System (VTLS).

In 1973, Heterick joined the College of Architecture and Urban Studies as professor and director of the Design Automation Laboratory. He remained associated with the College of Architecture for more than 10 years, serving as head of the building constriction and chair of the environmental

design and planning doctoral program. He also served as assistant dean of research.

In 1985, he joined the Department of Management Science in the Pamplin College of Business. In 1985, he was named vice president for information systems with responsibility for computing, campus networks, the campus library, university printing and other university departments. Under his leadership, the first phase of the Andrews Information System building in the Corporate Research Park was completed and the university installed one of the most comprehensive voice, video, and data systems in all of U.S. higher education.

After retiring from Virginia Tech in 1991, Heterick was named president and CEO of Educom, a Washington-based professional association.

Heterick received his bachelor's degree in civil engineering, a master's degree in structural engineering and a Ph.D. in engineering from Virginia Tech.

In lieu of flowers, contributions may be made to the Robert C. Heterick Jr. Scholarship Fund (872866), care of Virginia Tech, Office of University Development, 201 Pack Building, Blacksburg, Va., 24061 or visit <http://www.GivingTo.vt.edu>.

STUDENT DEATH

Chad Franco Vignola, a sophomore in the Pamplin College of Business.

ECONOMIC-DEVELOPMENT

Continued from 5

to conduct PMB programs on their own.

As the final component of Tech's outreach efforts in Nelson County, Aughenbaugh and Richard Moorefield, an economic-development specialist formerly with Outreach Program Development at Tech conducted a full-day economic-development planning seminar for the board members of Nelson County's Industrial Development Authority in July. The seminar emphasized the roles, responsibilities and opportunities the board has and how it may make a positive impact on the county's economic future. In August, Aughenbaugh and Moorefield also assisted the Industrial Development Authority in producing its strategic plan for the future.

RECOGNIZED

Continued from 7

the legal compliance of the American with Disabilities Act and embraced the talents that people with disabilities contribute to the workplace and to the community. Launched in 2002, the Disability Friendly Business Program acknowledges Virginia's businesses that have instituted and promoted practices toward the employment, independence and customer service to persons with disabilities.

The award ceremony was held in observance of October's National Disability Employment Awareness Month.

OWCZARSKI

Continued from 7

Brook from 1989 to 1994. Owczarski has been recognized for professional achievement by both the Council for the Advancement and Support of Education and the Syracuse Press Club.

Owczarski received his bachelor's degree from the S.I. Newhouse School of Public Communications at Syracuse University and a master's degree from the School of Education at Syracuse University.

Green Garden Cafe offers inexpensive dining

By Rebekah Spence

An inexpensive dining experience on campus that also helps support student classes is available to members of the campus community.

The Green Garden Cafe, located in the third-floor atrium in Wallace Hall, is an extension of the Department of Hospitality and Tourism Management. It provides hands-on experience preparing students for the real world of food sanitation and preparation.

Students in hospitality and tourism and well as some students majoring in human nutrition, food and exercise are required to take a four-credit course on purchasing, preparation, service, and management of a large-quantity food-service operation. Gail Perrotta, food-services manager of the Green Garden Cafe, said the main focus is on food safety and sanitation.

The Green Garden Cafe offers both dine-in buffet and take-out menus. The menus are available on the Department of Hospitality and Tourism Management web site.

Currently, students at the cafe are offering a Thanksgiving special turkey feast on Wednesday, Nov. 19. Faculty and staff members who make reservations of four or more people will receive a 10-percent discount, making the price only \$5.95 per person.

After students are finished with the course, they will be trained and certified in the Hazard Analysis and Critical Control Points health code as well as familiar with the Virginia food health codes. They are graded on food presentation, quality, standards, and ability to take corrective measures in questionable situations with food-critical control points.

In addition to the student program, the Green Garden Cafe will be offering catered parties from December 4 through 19. These parties will be catered by Perrotta, a pastry chef and graduate of Johnson and Wales University Culinary Program in Providence, Rhode Island. Perrotta is accompanied by Nicolas Graf, who is a Swiss chef with five-star hotel experience and training, and a Ph.D. student in the Department of Hospitality and Tourism.

CVC WINNER

Brenda van Gelder, director of the E-corridors Program was last week's winner in the Commonwealth of Virginia Campaign (CVC) weekly prize drawing. She won a fern donated by the Horticulture Department. At the end of its third week, Virginia Tech was almost half way to its \$225,000 goal, with over \$100,000 being pledged.

In addition to individual contributions, departments may also raise money as a team. The Motor Pool raises money by offering candy for contributions at their counter. As employees come in to the office they have an opportunity to take a piece of candy and make a contribution to the CVC. The change adds up and last year this activity raised over \$40.

CVC pledge cards will be accepted until December 5.

TECH'S

Continued from 1

supercomputer. Editor Nick dePlume reported Virginia Tech had placed a "large order of dual-2GHz G5's to form a cluster." The next day, dePlume ran a second story, citing a source that said the 1,100 clustered personal computers were "estimated to be one of the five fastest supercomputers in the world."

DePlume's source was correct. At SC2003, the news will become official. Virginia Tech will rank as the number-three supercomputer on the Top 500 list, behind Japan's Earth Simulator and ASCI Q, the Los Alamos National Laboratory's dedicated weapons computer. Jack Dongarra of the University of Tennessee, who also holds an appointment at Oak Ridge National Laboratory, compiles the list and released it on a web site, <http://www.netlib.org/benchmark/performance.pdf>, on November 5.

Dongarra, interviewed by the *Richmond Times Dispatch*, said the "notable aspect" of Virginia Tech's supercomputer "is the \$5.2-million price for all that computing power. What's surprising is the price/performance for the machine."

Hassan Aref, dean of the College of Engineering and a former chief scientist for the San Diego Supercomputer, said the \$5.2 million represents approximately one-tenth the average cost. The cost of Japan's supercomputer is apparently not public record,

but experts have suggested numbers that range from \$350 million to \$1 billion.

In terms of the speed of the Tech supercomputer, it can theoretically handle a potential 17 teraflops, or 17 trillion operations per second. Currently, its designers have recorded 10.28 teraflops.

As the cluster was being built, the university named Srinidhi Varadarajan, an assistant professor of computer science in the College of Engineering, the director of the Terascale Computing Facility. Jason Lockhart, also of the College of Engineering, and Kevin Shinpaugh of Information Technology were named associate directors. Glenda Scales, assistant dean for research computing and distance learning, College of Engineering, and Pat Arvin, associate vice president for information technology, provided the overall direction for the project.

For three months Arvin and Scales held weekly meetings with the university's key players for the project. Lylah Sartin, the Computing Center's facilities manager, was critical in moving the project forward, handling elements ranging from arranging the preparation of the facility to procurement issues.