ASPIRES projects enhance research, scholarship

By Susan Tradove

Research and Graduate Studies (RGS) has announced the fifth round of ASPIRES recipients. ASPIRES stands for A Support Program for Innovative ESearch Strategies. Support from the Provost’s Office and RGS provided $1.2 million to support faculty members’ programs in amounts ranging from $6,365 to $72,077. Winning proposals also included funding from departments, colleges, and other sources.

“By providing funds for research infrastructure enhancement, the intent is to increase a faculty member’s success rate in competing for external support, and by providing funds, for example, for the purchase of research materials and the collection of research data, to enhance a faculty member’s scholarship,” said Gene Brown, associate provost for RGS program development.

Panel member Jerry Niles, associate dean of the College of Human Resources and Education, said of the selection process, “All proposals received a fair hearing. The context in which proposals are reviewed helped reveal their strengths. I enjoyed my participation, which I attribute to the quality of the proposals, the diligence of the panel, and its leadership, which values research from all disciplines. It is through this kind of exchange that I think we enrich our academic culture at Virginia Tech.

“When faculty members ask me whether they should apply to ASPIRES, I will tell them yes—if they can write a good proposal (because the competition is stiff and the review rigorous) that demonstrates the value of the idea, the quality of the method, the promise of sustainability, and the support of their department and college,” Niles said.

Since RGS established ASPIRES in 1996, the university has invested more that $7 million through the ASPIRES program. In the period between 1996 and 1999, ASPIRES recipients have reported that this funding has resulted in the production of nearly 700 publications based on their research and has resulted in external sponsored research in the amount of $62.5 million, which is more than 10 times the amount of the university’s $5.9-million investment.

“We are particularly pleased to be able to support faculty members’ research and initiatives,” said Len Peters, vice provost for research and dean of the graduate school. “The results prove that these individuals are savvy. They know what needs to be done and how to do it. The result is a university with significant strengths to offer students and sponsors.”

The guidelines for this year’s ASPIRES program can be found at www.rgs.vt.edu/aspires/. For more information about ASPIRES, contact Brown at 1-5410 or ebrown@vt.edu. From 130 proposals, 38 were funded, as follows (listed alphabetically by department):

1. Roger L. Simpson of aeronautics and ocean engineering received funding for an argon ion laser for a cascade tunnel laser-Doppler velocimeter.
2. Edward J. Smith, Eric A. Wong, and Paul Siegel, animal and poultry science (APSC), for development of genomic reagents for un

(See PROVOST on 8)
Ten Residential and Dining Programs (RDP) staff members recently earned ServSafe® Food Protection Manager Certification. They include Gary Allen, Chad Brodkin, Eric Cartwright, Terry Gadd, Lori Greiner, Crystal Hollins, Barbara McGuire, James Surface, Linda Wheeler, and Mary Ann Williams. The ServSafe® training program educates participants about preventing food-borne illness, reducing liability risks, lowering insurance costs, and improving food quality. The program is recognized by the International Food Safety Council.

Professor of Forestry Bob Shaffer and his graduate student Tal Roberts won a Forest Resources Association (FRA) Southeastern Technical Division Award for technical writing. The award was presented at the Southeastern Technical Division’s meeting in Asheville, N.C. for their technical release, “Injury Rating for Forest Operations.” Shaffer’s study was a follow-up to a larger FRA-funded Virginia Tech study of injuries on mechanized logging operations in the state. The Forest Resources Association Inc. is a nation-wide, non-profit trade association responsible for issues related to the safe and efficient harvest and transportation of forest products from the woods to the mill. FRA members include the nation’s pulp and paper mills, wood dealers, independent logging contractors, and forestry-equipment companies.

Richard E. Schmidt, professor of turfgrass ecology, received the Fred V. Grau Turfgrass Science Award in November. The award was presented at the annual meetings of the American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America in Minneapolis. Schmidt has conducted research in conditioning grasses to tolerate shade and recognizes significant career contributions in turfgrass science. The award was presented at the annual meetings of the American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America in Minneapolis. Schmidt has conducted research in conditioning grasses to tolerate shade and recognizes significant career contributions in turfgrass science.

W. Lee Daniels, professor of crop and soil environment sciences, has been named a first-place recipient of the U.S. Environmental Protection Agency’s 2000 National Wastewater Management Excellence Award in Biosolids Research. He was recognized as a key member of a joint American Polish team that successfully negotiated and reclaimed nuclear waste in Poland. Portions of three Superfund cleanup sites in the United States are being using the biosolids methodology development by Daniels’ team.

Kriton Hatzios, director of the Virginia Agricultural Experiment Station in College of Agriculture and Life Sciences, will be named a fellow in the American Society for the Advancement of Science at that organization’s annual meeting in San Francisco in February. Members of the association are elected to fellow status when their efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished.

Paul Knox, university distinguished professor and dean of the College of Architecture and Urban Studies, has been bestowed honorary membership in the Virginia Society of the American Institute of Architects (VSAA). This honor recognizes individuals who are not eligible for membership in the society but have rendered distinguished service to the profession of architecture or to allied arts and sciences within the domain of the society. Also, Knox co-edited Design Professionals and the Built Environment, An Introduction, published by John Wiley & Sons, Ltd.

Ed Dorsa, associate professor in the industrial design program, was elected by the Industrial Designers Society of America as the Northeast District Educational Representative. Representing the 11 schools of the district, he will sit on the society’s education committee and co-chair the district’s yearly conference for professionals, educators, and students.

Mike O’Brien, professor of architecture, has been elected president of the Architectural Research Centers Consortium, Inc. (ARCC). ARCC is an international association of architectural research centers committed to the expansion of a research culture and supporting infrastructure in architecture and related design disciplines. O’Brien will be charged with strengthening the connections between ARCC and the Association of Collegiate Schools of Architecture, the American Institute of Architects, and the Institute for Architecture Research.

Y.A. Liu, the Frank C. Vilbrandt professor of chemical engineering, received the National Friendship Award from the State Council of the People’s Republic of China in an awards ceremony held in Beijing in December. The award recognizes Liu as one of the top 40 international experts and professionals among more than 10,000 working in China during 2000. He was cited for helping the Chinese petrochemical industries with technology development and engineering training from 1992 to 2000.

Annamalai Annamalai, assistant professor of electrical and computer engineering at the Alexandria Research Institute (ARI) in northern Virginia, has received one of the highest honors offered by the Institute of Electrical and Electronics Engineers, Inc. (IEEE). Annamalai won the 2001 IEEE Leon K. Kirchmayer Prize Paper Award for a paper on his work in the field of power electronics and information technology. Portions of three Superfund cleanup sites in the United States are being using the biosolids methodology development by Daniels’ team.

The Center for Excellence in Undergraduate Teaching (CEUT) and University Office of International Programs (UOIP) have announced the winners of the 2001 summer faculty fellowships. They are Don G. Creamer (educational leadership and policy studies) for “Researching the Foundation of the Modern Cooperative Movement.” The grants will support faculty travel abroad to further research projects and curriculum development. A total of $32,500 was awarded.

Harry L. Haney Jr., the Garland Gray professor of forestry, was presented the 2000 Public Service Award by the Association of Consulting Foresters of America Inc. at its annual meeting in Charlotteville. The award recognizes his outstanding service to the public, forest landowners, the forestry profession, and consulting foresters in promoting sound forestry through public education.

Pamplin College of Business Dean Richard E. Sorenson served as one of three judges last fall for the first annual Torch Award for Marketplace Ethics, organized by the Better Business Bureau of Western Virginia. The award recognizes Western Virginia companies “that maintain a solid commitment to conducting their business practices in an ethical fashion.” The winners were Virginia Variety Transfer Inc., Funk’s Jewels, Boxley Company, and Kroger Mid-Atlantic.

Carrie Eartman, assistant professor in the Department of Human Nutrition, Food, and Exercise, received $3,500 from the American Dietetic Association Research Experiences Practice Group 2000 for the First Author Published Paper Award. The paper, “A comparison of bioimpedance methods for detection of body cell mass change in HIV infection,” was published in the Journal of Applied Physiology in March 2000.

Briana Mihalik, head of the Department of Hospitality and Tourism Management, was awarded the 2000 Executive of the Year award (EOY) by the New River Valley Chapter of the International Council of Hotel, Restaurant, and Institutional Foodservice Executives. Mihalik was nominated by Sandy Graham, his administrative assistant, and selected by a special EOY committee.

Several faculty members and students from the Department of Near Environments, Clothing and Textiles attended and presented at the International Textile and Apparel Association (ITAA) annual meeting in Cincinnati, Ohio in November. Graduate student Katherine Carroll received the ITAA Fellowship award ($1,000) for continuing doctoral-level students.

Michael Houston, head of the Department of Human Nutrition, Food, and Exercise, was the keynote speaker at the 2000 International Congress on Exercise Nutrition in Taegu, Korea. Houston’s talk was “The importance of antioxidants in foods and supplements for the training and performance of elite sportmen.” The second edition of Houston’s book, Biochemistry Primer for Exercise Science, will be published in February.

Joan McLain-Kark, Julia Beamish, and Karen Roberts received a $100,000 grant from the American Association of Retired Persons/Andrus Foundation for a research study titled “Using the CAVE to Determine Residents’ Preferences and Functioning in Assisted Living Private Spaces.”

Sherry Schofield-Tomschin and Anna Marshall-Baker received a $15,000 grant from the Alzheimer’s and Related Disease Research Fund for their proposal titled “Tactile and Visual Stimulation in Alzheimer’s Care: Units: Incorporating Quilts in the Living Environment.”

John M. Carroll, professor in computer science and director of the Center for Human-Computer Interaction, has published Making Sense of America in Reno, Nevada. Bodnar presented an invited talk entitled “Origin of secondary mineralization at Yucca Mountain, Nevada: Implications for repository safety.” He also co-authored two presentations with colleagues from the University of Tennessee and the University of Oregon, Post-doctoral research scientist Andreas Andrikat presented a talk entitled “Barrier of secondary mineralized intrusions: the importance of aqueous fluid immiscibility.” Post-doctoral researcher Maria Mercedes Gonzalez presented a talk entitled “Na/K partitioning between vapor and liquid in the NaCl-KCl-water system at 600-800°C and 500-1300 bars.” Doctoral candidate Jay Thomas presented a talk entitled “Melt inclusions in zircon as recorders of melt evolution in crystallizing granite plutons.”

Physical Plant Director Bill Elvey was recently elected first vice president for the Southeastern Regional Association of Physical Plant Administrators. In this position, Elvey is responsible for preparing the organization’s 2001 annual meeting, which will be held in Roanoke. The southeastern region includes Virginia, Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, West Virginia, Arizona, Puerto Rico, and the U.S. Virgin Islands.

NIOSH grant research may help older workers remain competitive

By Liz Crumbley

Getting older and feeling weaker?

Among healthy people, muscle strength decreases by only about five percent between the ages of 25 and 40. But between the ages of 50 and 60, muscle strength decreases by about 20 percent.

To many of us this change is noticeable only while we're laying out at the gym or rearranging furniture, but it's a matter of critical importance to the millions of aging workers in physically demanding jobs.

It's also important to Maury Nussbaum, assistant professor of agricultural and systems engineering (ISE), who has received a $425,000 grant from the National Institute of Occupational Safety and Health (NIOSH) to study the effects of age on work capacity.

"Physically demanding work isn't going away," Nussbaum said. During the mid-1990s, he noted, about 12 percent of workers were over 55 years of age and that is expected to rise to 15 percent within five years. Many of these workers are engaged in physically demanding work — from assembly-line jobs to heavy construction — that they did in their 20s, and would like to keep their jobs because they pay well.

"By 2020, about 52 million people in the U.S. will be over 65," he said. "Many workers are staying on the job longer, and many industries have increased the average of workers doing physically demanding jobs. We need to learn what older workers are capable of doing during complex exertions."

Nussbaum works in ISE's Human Factors Engineering and Ergonomics program to try to learn how the workplace and work tasks affect workers and how to design work to maximize capacity and minimize risk," he said.

There's evidence of an intriguing twist to the fact that muscle strength diminishes with age, Nussbaum said. As we age, we may also develop more endurance. "Despite being weaker, older workers seem to have more resistance to fatigue."

Muscles are composed of two types of fibers — "fatigue-able" and fatigue-resistant. The fatigue-able fibers provide maximum strength or force, and we experience a selective loss of these fibers as we age. So, Nussbaum said, we are losing more of the fatigue-resistant fibers. "If young and older workers are performing the same tasks, the older ones are typically working at a higher proportion of their capacity."

Companies realize that older workers also tend to be more reliable and experienced. "With all of this in mind, Nussbaum and Laura Wojcik, a former member of the engineering science and mechanics faculty, developed a proposal for NIOSH funding. "Our central hypothesis is that older, more-experienced workers would have greater endurance on the job if tasks could be adjusted to their work capacity," Nussbaum said.

To test this hypothesis, Nussbaum will recruit groups of younger workers — 18 to 24 years old — and older workers — 55 to 65 years old — and have them perform sets of exercises. As they exercise, they'll be connected to mechanisms in ISE's Industrial Ergonomics Laboratory that will measure force, torque and muscle activity. The test group will perform intense exercises for short periods of time and light exercises for prolonged periods. Wojcik will act as a consultant on the project.

The project is also aimed at evaluating realistic tasks. "Lots of research has been done using constant force and posture," Nussbaum said, "but in the real world people are moving around."

Another goal is to assess the levels of fatigue that the subjects experience. "We need to see if there are simple measures that can be developed for companies to use in alleviating fatigue so that workers can perform to their maximum capacity."

If the theories behind the project can be proven, Nussbaum said, companies can learn how to modify the workplace and tasks so that older workers can be more effective and stay in their jobs longer.

"Many companies already are adjusting tasks to accommodate older workers," he said. "We hope this research will help more companies make adjustments and overcome their resistance to hiring and keeping older workers."

Fatigue and work-related injuries — particularly of the spine — are of special interest to Nussbaum, who has created a computer program that simulates and measures the effects of various movements and stresses on the spine and supporting muscles. "The assumption is that reducing fatigue will reduce injury as well as increasing efficiency," he said. "Industry is very receptive to this type of research, particularly when it leads to specific recommendations or guidelines."

Tech graduate student helping Jamaican farmers

By Sally Harris

When Jamaican farmers attempt to export their hot peppers to the United States, the peppers are quarantined because a pest called the gall midge has been intercepted in hot-pepper shipments from the U.S. to the Caribbean.

Virginia Tech professor Ryan Williams is working with the Office of International Research and Development (OIRD) in the Integrated Pest Management (IPM) Collaborative Research Support Program (IPM CRSP). He is building on the work of his advisor, Larry Grossman, along with Andy Nussbaum and Sue Tolin of plant pathology, chair of the Department of Agriculture naturally does not have the resources to market naturally does not have the resources to market their hot peppers to the United States, the peppers are treated with chemical pesticides that are not used in the United States.

As their major assessment, Williams's research will evaluate the potential for various cultural methods to control the gall midge. The research will help producers find alternative ways to control the pest that do not include the use of pesticides.

The gall midge is a midge or mosquito, the female of which lays eggs on tomato, eggplant, and pepper plants. The larvae, which are called gall midge larvae or gall flies, feed on the stems of tomato plants, causing leaves to roll and curl upward. The larvae can damage pepper plants by feeding on the leaves and stems, as well as on the fruits, causing blistering on the surface of the pepper and a yellow coloration. The larvae will also feed on the seeds of the pepper plant, which are the seeds that are sold to the consumer.

Researchers at Virginia Tech are using GIS and spatial analyses to locate pest-free areas on the island. They are also using GIS to discover the patterns of gall-midge distribution across Jamaica and why those patterns exist. Williams visited 50 farms on both large-scale and small farms to ask about production methods, agrochemical use, and marketing. He used a global-positioning system (GPS) receiver, which obtains information from the GPS of satellites that orbit the globe and transmit signals to GPS receivers, to determine the elevations and locations of the farms on the Earth's surface. It can be used to map the distribution of insects and other environmental and social phenomena.

Integrated Pest Management is an approach that uses insecticides to control pests. "Completely eliminating the midge is unlikely," Williams said. "It's more realistic to find out where it is on the island and why it's occurring there. That's my role."

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He then used this information and the Arc View software program to find out if farmers' production methods or environmental factors, such as the amount of rain encouraged the gall-midge pest to thrive in particular locations. The spatial patterns of the gall midge he found using statistical analysis of his findings. The patterns were related mostly to elevation, which influences the amount of rainfall. Farms located at higher elevations tend to have a higher incidence of the gall midge because the pest thrives in moist conditions and rainfall increases with elevation. "This tells me what the farmers have been saying all along," Williams said, "that when they have more rainfall, they have more problems."

Both large- and small-scale farmers are affected by the gall midge, but small-scale farmers have particular problems in the production and marketing of hot peppers. Because of the history of land tenure on Jamaica, small-scale farmers tend to cultivate at higher elevations, which are more prone to gall-midge infestations. Small-scale producers also suffer because they have difficulty finding reliable and consistent markets. Also, this year's 75-year-record drought hurt small-scale producers because many did not have the financial means to irrigate their farms.

Williams also is using GIS and spatial analyses to locate pest-free areas on the island where farmers could cultivate galls. If they followed certain guidelines. Corroborating his first findings, he discovered that farms located on the leeward side of the island below 1,000 feet in elevation had the driest conditions and were least prone to gall-midge infestations. Some farmers own their own lands, others lease them, periodically moving the place of production. Williams wants to make pepper farmers aware of the conditions that favor gall-midge problems as they vary across space. His findings may help producers make better choices for production locations. Williams's work is about making farmers aware of cultural methods to pest control, an alternative to agrochemical use. Others are working on coming up with other insect pest control methods. Williams is working with a host agency, the Caribbean Agricultural Research and Development Institute (CARDI) and the Rural Agricultural Development Authority (RADA), which provides the extension offices that will communicate his findings to farmers.

Williams is working with Virginia Tech's Sue Tolin of plant pathology, chair of the Caribbean site of the IPM CRSP. IPM CRSP is a project funded by the U.S. Agency for International Development (USAID) and is managed locally by Virginia Tech's Office of International Research and Development.

New Women's Center director named

Ellen Plummer has joined Virginia Tech as director of the Women's Center.

Plummer's last appointments were at Duke University, where she was director of its Women's Center for six years, director of gender equity and harassment prevention, and most recently assistant director of the pre-major advising center.

Plummer, whose special interest is in women's leadership education, will concentrate on developing the Women's Center's leadership academic concentration in collaboration with the Women's Studies Program and other partners.
UOIP sponsors grant-writing workshop
The University Office of International Programs (UOIP) is sponsoring a grant-writing workshop to be held in two sessions, Friday, Feb. 9 and Friday, Feb. 16. Participants will meet in 1020 Torgersen from 2:45-4 p.m. on both days. Experienced grant writers will guide faculty members and administrators through the entire grant-writing process, from locating funding sources through preparing a grant application. Participants should bring to the first session a list of key words describing the grant they plan to write. By the end of both workshops, each person should have a proposal ready for submission. For information, contact David Britt at 1-5888, dbritt@vt.edu.

Museum presents Saturday Science
Saturday Science programs for children in kindergarten through third grade will be held on the fourth Saturday of every month from 11 a.m.-noon at the Virginia Tech Museum of Natural History. The activity is free, but enrollment is limited, and pre-registration is required. The next program, "Are You Me?" will be held Saturday, Jan. 27. Call 1-3801 to register.

Wallace Gallery features photographic essay
The Wallace Hall Gallery is now exhibiting the photographic essay "DESIGNCOMMONS: Design in the Commonplace" by James Winchener, interior design professor, University of Florida. The exhibit explores the interactive environment as a source for art, design, and architectural vocabulary. The gallery is open from 8 a.m.-5 p.m. Monday-Friday, and the exhibit runs through February 23.

Consultant speaks about drugs and alcohol
On Monday, Feb. 5 at 7:30 p.m. in Cassell Coliseum, the Athletics Department will sponsor an hour-long alcohol prevention program given by Mike Green of Mike Green’s Collegiate Consultants on Drugs and Alcohol. The program, called "4 Stages of Drinking," is open to all students, and faculty and staff members. Green promotes drug and alcohol awareness on college campuses nationwide, has developed drug and alcohol programs for New Jersey high schools, and has produced programs for the medical societies of both New Jersey and Virginia.

Committee requests faculty feedback
The Committee on Conflicts of Interest and Commitment is monitoring implementation of the new Conflicts of Interest and Commitment Policy and reporting feedback to the Committee on Faculty Affairs and University Council. The committee is soliciting feedback from faculty members who have not responded. The policy, associated forms, and background material can be found at http://www.profost.vt.edu/fhp/fhp.html.

RDP seeks nominees for A. Alan Baird Award
The Department of Residential and Dining Programs (RDP) is seeking nominations for the 2000-01 A. Alan Baird Award. The award honors the student who has contributed the most to the residence-hall program during or culminating in the current academic year. All students are eligible, including those not affiliated with RDP. Nominations can be submitted on line at www.rdp.vt.edu/baird. Mail hard-copy attachments to Lori Greiner (0223). For information, call 1-8088, or e-mail lgreiner@vt.edu. The deadline is 5 p.m. Friday, Feb. 16.

CAEE Tutoring Program re-certified
The Center for Academic Enrichment and Excellence (CAEE) Tutoring Program has been re-certified for five years by the College Reading and Learning Association. The program has been certified since 1996 and offers free tutoring for select students to all undergraduate students. The mean peer rating for all CAEE tutors from 1996-2000 is 3.8 on a four-point scale. Information about the tutoring program and other CAEE programs is available at http://www.caee.vt.edu or 1-4133.
Presidents' Continued from 1

Old partnership leads to new exchange

By Sarah Newbill

For the past 12 years, a relationship between Virginia and Uruguay has been incubating, and has recently had renewed life with the announcement of a new student-exchange program through a memorandum of understanding presented by Gov. George Allen to Uruguay's President Carlos Slim. The agreement now opens the door for interested university students in both countries to participate in an exchange program with Uruguay.

The relationship with Uruguay started in the early 80's when noted Uruguayan architect Armando Barbieri-Castagna became interested in participating in higher education and urban studies programs while his daughter was a studentthere. In 1988, a formal ceremony marked the official relationship as Barbieri presented a cultural token to the College of Architecture and Urban Studies—a wood carved bust by well-known Uruguayan sculptor Juan Pedro Morra. This bust is currently housed in the Art and Architecture Library in Cowgill Hall. In return, Barbieri accepted a pastel painting by CAU Professor Dennis Kilper, which still hangs in the Court of Justice in Salto, Uruguay.

In 1998, Bariieri revisited Tech to celebrate a decade of cultural exchange between the university and Uruguay by presenting a talk and slide presentation to members of the Henry H. Wood, Jr. Center for Theory and History in Tech. While here, he met with university officials (with Architecture Professor Humberto Rodriguez-Camilloni as translator) to discuss future educational and cultural exchange possibilities.

In recent years, Rodriguez-Camilloni has invited him to lecture at ORT, and while there, met with administrators to continue discussions on a range of topics. “This is a very young, but is considerably similar to Tech. They are particularly interested in what we can offer their students, and vice versa,” said Rodriguez-Camilloni. “They are a dynamic staff and are anxious to do innovative things. Our university is the kind of entity they want to become identified with.”

For more information about ORT, visit their web site at http://www.ort.edu.au/ (in Spanish). VT students interested in participating in this program should contact Christine Jackson, assistant director for international affairs, University Office of International Programs in 134 Burruss, jacksonc@vt.edu, 1-5888, or Rodriguez-Camilloni at hcamilloni@uc.edu.

Tech's West End Market receives new national accolades

By Lori Greiner

Virginia students who frequent the West End Market dining center were recently honored with two national awards, the 2000 Innovative Achievement in Auxiliary Services award from the National Association of College Auxiliary Services (NACAS) and a Best Concepts award for Best Renovation from Food Management magazine.

The 2000 Innovative Achievement award recognizes outstanding development, implementation, and commercialization of new and exciting programs in auxiliary services. Open to all 1,100 institutional members of NACAS, the contest is a competitive peer-recognition program that draws entries from universities throughout the Unites States.

Food Management’s Best Concept Awards honor those who provide their clients with outstanding food and services. “West End Market, an innovative concept in college food service, a groundbreaking concept realization that meets the challenges presented by the university, its students and the dining services department itself for an eatery that provides healthy foods in an innovative, cutting-edge setting,” said Food Management magazine.

These awards are an affirmation of our decision to look beyond the traditional university food-service program,” said Rick Johnson, director of Culinary Services.

The West End Market’s marketplace concept uses independent, freestanding kitchens as islands within the seating areas, similar to an open-air French market. Most food preparation and cooking takes place in front of the customer, communicating a high level of quality and freshness.

West End Market opened in January 1999. More than 4,000 students are served from 10:30 a.m. to 8 p.m. weekdays, exceeding initial expectations. More than 20 colleges, universities and contract food service organizations have come to Virginia Tech specifically to tour the West End Market as well as the other dining centers.
EMPLOYMENT

Classified Positions

The following classified positions are currently available. More details of these positions, specific application procedures and position-closing dates may be found on the Personnel Services Web site at http://www.ps.vt.edu. Available positions are also listed on the Job Line, a 24-hour recorded message service. For information on all job listings, call 1-5300. Some of the following positions include state benefits. Positions with numbers beginning with a “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.

FULL TIME

Executive Secretary, 004557R, Pay Band 3, CNR.
Research Associate/Assistant (Telecommunications), W023203A, Pay Band 2, CNS.
Fiscal Assistant, W023128M, Pay Band 2, APS.
Food Operations Assistant A (Dishwasher), W022596H, Pay Band 2, DBHCC.

One part-time food-service position available.

Housekeeping Worker, W020214J, Pay Band 1, DBHCC.

Housekeeping Worker, W020574, Pay Band 1, DBHCC.

Medical Illustrator, W022288M, Pay Band 4, CVN.
Office Assistant, W022596H, Pay Band 2, RDP.
Office Services Assistant, W022114R, Pay Band 2, RDP.
Office Services Specialist, W023188R, Pay Band 2, Provost’s Office.
Office Services Specialist, W022260M, Pay Band 2, Veterinary Teaching Hospital.

Purchasing Assistant, W020891R, Pay Band 1, Parking Services.

Payroll Technician, W023145M, Pay Band 2, Veterinary Teaching Hospital.
Pharmacist (Relief), W022501M, Pay Band 6, Veterinary Teaching Hospital.


Radiologic Technologist, W022412M, Pay Band 3, Veterinary Teaching Hospital.
Records Clerk, W020548R, Pay Band 2, University Registrar.

Small Animal/CI Technician, W020101M, Pay Band 4, Veterinary Teaching Hospital.

Storekeeper, W022291M, Pay Band 2, Veterinary Teaching Hospital.
Switchboard Operator, W022101A, Pay Band 2, CNS.

Visitor Center Receptionist, W022267D, Pay Band 2, University Relations.

UNIVERSITY ONLY

Police Sergeant, U001171G, Pay Band 4, Police Department.

Program Support Technician, U005564M, Pay Band 3, VCE—Patrick County.

Trades Utilities Master Mechanic, U007009G, Pay Band 4, Physical Plant.

OFF CAMPUS

Area Emep/Snep Program Support Technician, U006950M, Pay Band 3, Northeast District.

Enrollment Program Assistant, W02091J, Pay Band 3, Northern Virginia Center.

Office Services Assistant, W02333J, Pay Band 2, HNFE.
Office Services Assistant, W023161, Pay Band 2, HNFE.
Office Services Assistant, W02330J, Pay Band 2, HNFE.

Research Specialist, W027002M, Pay Band 3, CES/US.

Underwriting Account Executive, W020030, Pay Band 3, WVTI.

FACULTY POSITIONS

INSTRUCTIONAL


Hokie Express available for faculty, staff members

The Hokie Express is now available for use by faculty and staff members. The bus is on a 10-minute schedule from Burruss to Ligon Reaves and back. The service is available from 7:30 a.m. to 6 p.m.

To use the Hokie Express, show the driver a Hokie Passport. The route map is published below. For more information, call Blacksburg Transit at 961-1185.

Innovative games keep young girls interested in math, science disciplines

By Sarah Newbill

Studies show that girls tend to stay away from or drop out of science and engineering studies at the college level. While studying engineering at Stanford, Mitzi Vernon, assistant professor in the department of architecture, kept asking herself “why is engineering and science such a struggle for females?”

Out of this question, she has been developing an answer through tangible learning tools to help others at an earlier age feel more comfortable and familiar with tough science concepts.

With a $95,000 grant from the National Science Foundation (plus a recently awarded supplement of $9,000), Vernon hopes to capture the attention of girls ages 8-11, and maintain their interest in math and science.

She is developing interCONNECTIONS™, a series of book-like modular toys/board games embedded with mechanical mechanisms. The “books” can be physically connected like a three-dimensional puzzle, to illustrate how specific concepts like atomic structure, the Pythagorean Theorem, music, color, and magnetic fields are interconnected to each other.

The “book” series is a result of the belief that education is a non-flat thinking adventure, especially for girls. With sets of pages that are physically interactive, books are a metaphor for how girls learn and think, rather than two-dimensional entities bound on the left. Key findings indicated to Vernon that (1) the interests of the girls were consistently socially oriented (2) the tendency of girls is to want things to be tangible, collectible, and communal (3) girls are specifically inclined to create character and story line in their play activity (4) there is a correlation between the lack of interest in computer games and their general feelings about technology.

The interCONNECTIONS™ books are concrete demonstrations of less concrete ideas, such as magnetic fields, electricity, light, and sound. The books are designed for girls in that they bring intangible concepts to the physical world through the metaphors that girls are most engaged in (e.g., their faces, each other). A significant body of research shows that women and girls have a more symbolic and interpersonal approach to learning.

Each book has one or two special boards that have mechanical and interactive mechanisms embedded in them; this is unlike the popular “pop-up” construct. Each book establishes a valid test of denomenation-care mapping.

Richard A. Winett, Janet R. Wojcik, William G. Herbert, and Sharon M. Nickolds-Richardson, PSYC and human nutrition, foods, and exercise, for an integrative approach for effective and efficient exercise training: Experimental studies to develop a National Institutes of Health grant proposal – part 2.

36. Edward Weisband and Alnoor Ibrahim, political and international affairs and planning (UAP), for a Center for Public Accountability in Social, Ethical, and Environmental Auditing and Reporting.


38. Charles Frazier, Fred Kamke, and Wolfgang Glasser, forest products, for a new equipment package for support adhesion research.

ASPIRES

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1. Timothy J. Larson, David Popham, and Robert H. White, biochemistry (BIOC) and biology (BIOL), to study trafficking of sulfur in bacteria.

2. Brian Storrie, Cynthia Denbow, John McDowell, Brenda S. J. Winkel, and Edward J. Wojcik, BIOC, plant pathology, physiology, weed science (PPWS), and BIOL, for updating confocal microscopy facilities to track protein machines.

3. Timothy J. Larson, David Popham, and Robert H. Jones, BIOL, for improving research facilities for plant ecology research.


5. Bill Sible, Robin Andrews, Jack Cranford, Klaus D. Elgert, Robert Lucklitter, Anne McNab, and Bruce Turner, BIOL and psychology (PSYC), for improving institutional animal resources.

6. Cheeming Zhang, biological systems engineering, for a protein separation laboratory.

7. Thomas L. Brandon, George File, and Joe Dove, civil and environmental engineering (CEE), for the research infrastructure for a geotechnical engineering laboratory.


10. Paul R. Carlier, chemistry (CHEM), for a laboratory for the asymmetric synthesis of drug precursors and drug candidates.

11. Alan R. Ecker, CHEM, for expanding the capabilities for studying and using surfactant order at liquid/vapor interfaces.

12. T. Daniel Crawford, CHEM, for the Virginia Tech quantum chemical research faculty.

13. Harry W. Gibson, David R. Bevan, and Nancy G. Love, CHEM, BIOC, and CEE, to establish a research program for developing biomimetic sensors using molecularly imprinted polymers (MIPs).

14. M.A. Saghai Maroof, crop and soil science and mechanics (ESM), for the design and development of controlled-atmosphere chemostat bioreactors.


16. Richard E. Veilleux, computer engineering (CEP/E), for enhancing the CAVE™ virtual environment.

17. John Fike, Ruth Alscher, Christ Tadala, and Matthew J. Eck, GEOL and CSES, for the design and development of high-speed digital imaging system for large-deformation analysis of ionic polymer systems.

18. Thummor E. Lockhart, electrical and computer engineering (ECE), for a global positioning system (GPS) test facility.

19. Kusum Singh, educational leadership and policy studies (ELPS), for a study of classroom factors and science learning of high-school students.


21. S.B. Phillips and G.L. Mullins, Eastern Shore Agricultural Research and Extension Center (AREC) and CSES, for flow-injection analysis for enhanced-nutrient-management research and graduate student education.

22. Jim Berkson and Stephen A. Smith, forestry and wildlife sciences (FWS) and biomedical science and pathobiology, for establishment of a horsehoe crab crab research center.

23. Tommy J. Newcomb, Douglas C. Novinger, and Panos Diplas, FWS and CEE, for hydroacoustic and acoustic Doppler technology for characterizing aquatic habitat.

24. Madeline E. Schreiber, Christopher J. Tadala, and Matthew J. Eck, GEOL and CSES, for the design and development of a validation of demen- nation-care mapping.

25. Paul R. Carlier, chemistry (CHEM), for expanding the capabilities for studying and using surfactant order at liquid/vapor interfaces.

26. Wayne A. Scales, electrical and computer engineering (ECE), for developing an answer through tangible learning tools to help others at an earlier age feel more comfortable and familiar with tough science concepts.

27. Ken McClary, Donald Drapeau, Peter J DePasquale, John A. Nee, and John A. Williams, hospitality and tourism management, for a high-speed digital imaging system for large-deformation analysis of ionic polymer systems.

28. Marty Johnson, Chris Fuller, and Ron Richardson, UAP and the School of Public and Policy studies to develop a National Institutes of Health grant proposal – part 2.

29. Donald J. Leo, Tim Long, Harry Dankowicz, and Laura Wojcik, mechanical engineering (ME), CHEM, and engineering science and mechanics (ESM), for a high-speed digital imaging system for large-deformation analysis of ionic polymer systems.

30. Marty Johnson, Chris Fuller, and Ron Richardson, UAP and the School of Public and Policy studies to develop a National Institutes of Health grant proposal – part 2.
University hosts international natural-resources meeting

By Jeanne M. Garon

Thirty-six researchers involved in global sustainable agriculture and natural-resource management convened in Blacksburg January 3-5 to set the international agenda for communities and institutions involved in natural-resource decision-making.

The annual meeting of the Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program (SANREM CRSPP), hosted by the Office of International Research and Development (OIRD), drew representatives from international universities and research institutes, non-governmental organizations, the United States Agency for International Development (USAID), and four departments in Virginia Tech’s colleges of Agriculture and Life Sciences, and Arts and Sciences. Participants developed several new initiatives, including a plan to incorporate more involvement from the private sector and new methods for documenting landscapes and life cycles.

Funded by USAID’s Global Bureau, the SANREM CRSPP began as a five-year research, training, and information-exchange program; and is now midway through its second five-year phase. Its goal is to promote global availability of food, economic growth, and conservation of natural resources by improving decision-makers’ access to relevant data and information, by providing tools and methods for analyzing data, and by building local capacity through training.

SANREM benefits all who make decisions about natural resources, from farmers, municipal leaders, and provincial planners to national policy analysts, regional-network coordinators, and global-research-program managers. The program focuses most of its attention on Southeast Asia, the Andes, and West Africa.

Tech’s OIRD manages the West African program with participation from Washington State University, the University of Georgia, the Center for Holistic Management, the Institut d’Economie Rurale (Mali), and CARE-Mali. Michael Bertelsen and Keith Moore of OIRD serve as technical project coordinator and co-coordinator, respectively, while S.K. DeDatta, director of OIRD, serves as the institutional representative for Virginia Tech and vice chair of the SANREM CRSPP board.

The work in West Africa is centered in Northern Mali, where faculty members from Tech and other institutions are investigating conflict- and natural-resource management problems associated with the agricultural and pastoral systems of the region. The project offers graduate research assistantships to domestic as well as international students.

Interim Provost James Bohlman, who attended a reception honoring the conference participants, called Tech’s participation “a meaningful outreach opportunity.” For the university, “Projects like SANREM CRSPP,” he said, “allow us to use the expertise of our faculty members and graduate students to find solutions to complex, international, real-world problems that impact individual lives as well as the overall well-being of the planet. Moreover, it demonstrates the importance of having an international focus, achieving our goal of increasing research productivity.” OIRD is part of University Outreach.

STAFF SENATE

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every council, committee, and commission that makes up Tech’s governance system keeps everyone accurately informed and reduces unsubstantiated rumors.

“Every senator serves as part of the shared governance system,” Jones said. “Now that the issues are being openly discussed, we know exactly what’s happening. We know if there’s going to be an increase in parking fees because we have people on the Parking Committee, and we pass that information down.” In addition to keeping their staff associations better informed about the university’s agenda, staff senators keep the administration better informed about individual staff members’ perspectives.

Since its inception, the Staff Senate has had a significant impact on the university through numerous initiatives, including many that have affected not only the staff, but also the university community as a whole. Coliseum Drive, for example, may have been permanently closed if not for the intervention of the Staff Senate. The recently created scholarship fund for faculty and staff spouses and dependents resulted from the efforts of both the Staff and Faculty Senates. And the Hokie Express, recently established through the Office of Transportation, was specifically requested by the Staff Senate. Other issues handled by the Staff Senate over the years have included the smoking policy, handicapped accessibility, clean-up after games, and snow removal on campus.

Current issues on the Staff Senate’s agenda include dealing with parking in the future, defining how staff members (particularly research staff members) fit into the university’s top-30 research initiative, protecting wage employees who do not receive full-time benefits, and providing continuing education opportunities to help employees advance within the new pay plan.

Another ongoing priority is making sure that all staff members understand how and where they fit into the Staff Senate structure so they can fully participate. Ideally, every college and vice presidential area should have representation through a staff senator. However, as there are shifts in university administration and personnel changes within departments, groups can lose representation over time.

“We want to make sure that everyone is represented and that they know who represents them. If they don’t have representation, or if they want to volunteer to be a representative, they should contact us for help,” Jones said.

The Staff Senate meets once a month, usually on the third Thursday of the month, at noon. The next meeting is Thursday, Feb. 15 in 1810 Litton-Reaves. For more information, visit the Staff Senate web site at http://www.staffsenate.vt.edu/, or contact Delbert Jones at 1-3718 or dejones@vt.edu.

PROVOST

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Eyre said the committee is working with a highly regarded search firm, Baker, Parker and Associates, of Atlanta, which has assisted in searches for leading institutions across the country.

After displaying the text of the advertisement for the position, Eyre commented on the committee’s desire to find an individual with a record of exceptional scholarly activity combined with significant administrative leadership. General discussion followed, with members of the audience offering comments sounding the importance of identifying candidates with a high level of administrative leadership and with a record of skillfully overseeing significant change, given President Charles Steger’s goal of attaining top-30 status within the decade. Other comments included the importance of finding a dynamic leader who has prior experience at a top-30 institution; the importance of a record of achieving diversity in faculty hiring; and the importance of maintaining a healthy balance between technology and other elements of a comprehensive institution.

Those who wish to make additional comments to the committee may contact Eyre at cvmpxe@vt.edu, or Carole Nickerson at cnickers@vt.edu.