

# SPECTRUM



VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

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

VOLUME 23 NUMBER 13 FRIDAY, NOVEMBER 17, 2000

HAVE A PLEASANT  
THANKSGIVING  
Spectrum will resume  
publication on Friday, Dec. 1.

## Steger testifies on out-of-state-enrollment issue

**Editor's note:** The following is President Charles Steger's testimony before the Arts and Higher Education Subcommittee of the General Assembly House Education Committee concerning proposed legislation that would limit out-of-state enrollment. HB 1429, sponsored by Del. Jay O'Brien (R) Clifton, would limit out-of-state enrollment of incoming classes at the state's four-year public institutions to 33 percent. The bill exempts VMI, Norfolk State University, and Virginia State University. Steger spoke on November 15.)

It goes without saying that all of our institutions acknowledge that our most important obligation is to educate Virginians. Over the years, the commonwealth has developed a very fine and diverse system of higher education, including four-year institutions, community colleges, and a broad range of private colleges and universities. Within this system there is a place for any Virginian who has the ability and desire to seek education beyond high school.

Today I would like to ask you not to focus on a small group of institutions, but on the system as a whole, and what is the best policy to keep it strong. Historically, out-of-state students have played a key role in the strength of our system, not only at institutions such as the University of Virginia and the College of William and Mary, but also at VMI, Virginia State, and Norfolk State, and other institutions.

It is widely acknowledged that one of the great strengths of our system is its diversity. That diversity is a direct result of not having a single governing board for higher education, as is the case in many other states, but by giving our boards of visitors broad responsibilities for the decisions about our institutions. Among these responsibilities, one of the most central is the responsibility for admissions policies.

Over the years, through a cooperative process with SCHEV, our institutions have negotiated enrollment projections, including the appropriate mix of in-state and out-of-state students, with input from the staff of the General Assembly and the Department of Planning

and Budget. We believe this process has worked well, and should continue. Arbitrary limits on the enrollment of out-of-state students would set an unfortunate precedent, erode the powers of boards of visitors, and since several institutions would necessarily be exempt from this limit, would be unfair.

Please let me address some of the practical considerations mitigating against the proposed legislation. We have collected data from four institutions that seem to be at the heart of the current issue—Virginia Tech, the University of Virginia, the College of William and Mary, and James Madison University. I think this information will demonstrate, in a practical way, why we should not adopt this limit.

All four of these institutions are at or near enrollment capacity, especially given current funding. In Blacksburg, we have been struggling to keep our enrollment at the 25,000-student cap imposed by our Board of Visitors some years ago. Over the past 10 years, we have enrolled 1,568 additional Virginia students, with no additional state support. This amounts to a

budget shortfall of approximately \$9.6 million. In total, these four institutions have enrolled nearly 5,000 additional in-state students over the 1990s—a time when higher-education enrollments were generally thought of as not growing. While there is some variation among institutions, for most of us there has been virtually no increase in faculty positions or other direct forms of per student support to address these enrollment increases. We have received funding for salary increases, for tuition relief, and for special initiatives, but funding for enrollment growth has been severely limited in the 90s. The number of Virginia students these four institutions have enrolled, however, amounts to the same as adding another medium sized institution to our system, with almost no direct funding to support the increased number of students.

Of course, you may be thinking that all we need to do is reduce our out-of-state enrollment and admit more Virginians. Here  
(See *STEGER* on 4)

## Leadership center wins Innovation Award

By Sookhan Ho

Virginia Tech's Center for Leadership Studies has won an Innovation Award from the Southern Business Administration Association. The award is made to member schools for "unique, creative, and cutting-edge innovations" that reflect "the broad areas of impact that business programs can have."

The interdisciplinary Center for Leadership Studies is based in the Pamplin College of Business and directed by Dean Richard E. Sorensen, who accepted the award at the SBAA conference luncheon in Nashville on November 6. "We're delighted to be recognized for our interdisciplinary leadership-development efforts," Sorensen said.

The center was established in December, 1998 to promote the development of leadership skills among students and to share resources and coordinate activities concerning leadership development on campus.

Leadership programs are offered by the Pamplin College of Business, the Virginia Tech Corps of Cadets, the Women's Leadership Program, the Center for Interdisciplinary Studies, and the Division of Student Affairs. The programs include four academic minors, talks featuring nationally known speakers from the academic, government, and business communities, workshops and conferences, and a residential learning community.

The center has raised more than \$400,000 to support a scholarship, an endowed pro-

(See *LEADERSHIP* on 3)



**FOOTBALL FINALE** Lane Stadium has been the scene of fireworks both on and above the field this year. Tech will finish the season November 25 with UVA, and will then await news of a bowl bid. (R. Griffiths)

## What Will It Take to Become A Top-30 Research University?

By Susan Trulove

President Charles Steger named resources for more graduate students, more faculty members, more research space and equipment, and a motivated faculty as the critical components for achieving top-30 status as a research university.

At the annual Research and Graduate Studies (RGS) retreat November 4, Steger told deans, associate deans, and department heads, "We are going to have to find new sources of income. I do not see significant new funding from the state. It will have to come from partnerships with other institutions and business," Steger said.

"Information technology and knowledge are going to drive the robustness of the economy. We will see fundamental changes as higher education will be called upon to contribute to the economy as never before," Steger said.

"The mobility of intellectual capital is global, therefore access is global. If we don't have world-class programs, we are not going to be competitive. We do have such programs, but there is going to be a sorting out," he said. He pointed out that "the entry fee is higher. It takes several million dollars to have the critical mass of human resources and infrastruc-

(See *UNIVERSITY* on 4)

## Grad student's research published in Science

By Susan Trulove

From the familiar seashells and corals, to the microscopic plankton that live in ocean surface waters, the calcium-carbonate skeletons produced by these organisms contain important clues to Earth's history. By observing the microscopic growth of calcium-carbonate crystals using the atomic force microscope, researchers observed for the first time the fundamental physical processes that help govern climate change and ocean chemistry through the formation of bio-minerals.

The research by geological sciences Ph.D. student Kevin J. Davis and geochemist Patricia M. Dove, both of Virginia Tech, and crystal-growth physicist James J. De Yoreo of Lawrence Livermore National Laboratory was scheduled to be published in *Science* on Friday, Nov. 10 ("The Role of Mg<sup>2+</sup> as an Impurity in Calcite Growth").

The calcium-carbonate bio-minerals that are produced by ocean creatures to fulfill biological needs eventually settle to the bottom of the ocean to form much of the sea-floor sediment. The process of crystallizing ions from the seawater to form the minerals in their shells removes carbon dioxide (CO<sub>2</sub>) from the atmosphere, which is a greenhouse gas thought to cause global warming.

Magnesium is the principal impurity in seawater that interferes with the growth of the calcium-carbonate minerals so critical to the survival of many organisms. However,

(See *GRAD STUDENT'S* on 4)

# ACTIVITIES

## EVENTS

### Friday, 17

**Adobe Workshop**, 10 a.m.-noon, New Media Center: 1-3405 for information.

**Adobe Presentation**, 2:30-4:30 p.m., 100 Hancock: 1-3405 for information.

**Women's Basketball**, 7 p.m., Cassell Coliseum: Liberty. TA-UT, 8 p.m., Squires Haymarket Theatre: *Wild Goose Circus*.

### Saturday, 18

**Men's Basketball**, 2 p.m., Cassell Coliseum: VMI.

### Sunday, 19

**YMCA Hike**, 1:30 p.m., Lancaster House parking lot.

### Monday, 20

**Food-for-Fines Drive Begins** (Through 12-29), Newman Library: 1-6340 for information.

**Men's Basketball**, 7 p.m., Cassell Coliseum: William and Mary.

### Tuesday, 21

**Long Term Care Informational Meeting**, 9-11 a.m., DBHCC conference rooms D and E: 1-7779.

**Women's Basketball**, 7 p.m., Cassell Coliseum: JMU.

### Wednesday, 22

**State Offices Close at Noon.**

**"With Good Reason,"** 7 p.m., WVTF: "Crime and Punishment: Novel Approaches."

### Thursday, 23

**Thanksgiving Holiday for Faculty and Staff.**

### Friday, 24

**Thanksgiving Holiday for Faculty and Staff.**

**Men's Basketball**, 7 p.m., Cassell Coliseum: UVA.

### Saturday, 25

**Women's Basketball**, 2 p.m.: At Tallahassee Democrat Classic.

**Football**, 7:30 p.m., Lane Stadium: Virginia.

### Sunday, 26

**Women's Basketball**, 2/4 p.m.: At Tallahassee Democrat Classic.

### Tuesday, 28

**Bloodmobile**, 10 a.m.-4 p.m., Squires.

**Men's Basketball**, 7 p.m., Cassell Coliseum: Liberty.

**ULD Training Program**, 8 a.m.-noon, DBHCC rooms D and E: 1-7627 to register.

### Wednesday, 29

**Bloodmobile**, noon-6 p.m., Cassell Coliseum.

**CEUT**, noon-4 p.m., CEUT/UWP Offices: Call 1-6995 for information.

**"With Good Reason,"** 7 p.m., WVTF: Topic TBA

### Thursday, 30

**Bloodmobile**, 10 a.m.-4 p.m., Cassell Coliseum.

**CEUT**, noon-4 p.m., CEUT/UWP Offices: Call 1-6995 for information.

**Women's Basketball**, 7 p.m., Cassell Coliseum: UVA.

**VTU Lively Arts**, 7:30 p.m., Burruss auditorium: A Christmas Carol.

## DECEMBER

### Friday, 1

**Salary and Wage Paydate.**

**YMCA International Program**, 11 a.m.-7 p.m., Cranwell Center: International Gift Festival.

**Men's Basketball**, 6 p.m.: At Syracuse.

## SEMINARS

### Friday, 17

**Highlands in Chemistry**, 11 a.m., 3 Davidson: Bruce Novak, NC State University.

**MCBB**, 12:20-1:10 p.m., 102 Fralin: Joseph R. Ecker, Salk Institute.

**Physics**, 2:30-3:15 p.m., 210 Robeson: Nancy Ross

**STS**, 3:30 p.m., 132 Lane: Willem DeVries, University of New Hampshire.

### Monday, 27

**Horticulture**, 4-5 p.m., 409 Saunders: Vanessa Funk.

**Biochemistry**, 4 p.m., 223 Engel: Marc Thorsteinsson, University of Wisconsin.

### Wednesday, 29

**PPWS**, 4 p.m., Fralin auditorium: Cory Whaley.

### Thursday, 30

**STS**, 3:30 p.m., 132 Lane: George Gale, East Tennessee State.

**Statistics**, 3:45 p.m., 409 Hutcheson: Dennis Gilliland.

**Geological Sciences**, 4 p.m., 4069 Derring: Charles and Nancy Naeser, U.S. Geological Survey.

**CSES**, 4 p.m., 246 Smyth: John M. Galbraith.

## DECEMBER

### Friday, 1

**Highlands in Chemistry**, 11 a.m., 3 Davidson: R. Mark Wightman, University of North Carolina.

**MCBB**, 12:20-1:10 p.m., 102 Fralin: Michael Mendenhall, University of Kentucky.

**STS**, 3:30 p.m., 132 Lane: Doris Zallen.

## BULLETINS

### Bursar's Office payday notice

The Bursar's Office will be closed for the holidays from December 23 through January 1, with the exception of payday, December 29. On payday, pay checks will be distributed from one window in Burruss from 9 a.m.-noon.

To sign up for direct deposit in time for the December 29 paycheck, return the payroll direct deposit form to the Bursar's Office before December 1. Call 1-6277 for information.

### Upcoming holiday schedule listed

The state holiday schedules for Thanksgiving, Christmas, and New Year's Eve are as follows: State offices will close at noon on Wednesday, Nov., 22 and remain closed through Friday, Nov. 24 for Thanksgiving.

For Christmas, state offices will close at noon on Friday, Dec. 22 and remain closed through Tuesday, Dec. 26.

For New Year's, state offices will be closed on Monday, Jan. 1 and Tuesday, Jan. 2.

### Food-for-Fines drive cancelled

The library is cancelling the Food-for-Fines program which was to begin Monday, Nov. 20. After discussing the program with university legal counsel, the library was advised to discontinue the program.

### Participants needed for research study

Working women with physical disabilities are invited to participate in a doctoral-research project about finding

appropriate business clothing for work-related situations. The study will take place during spring semester and will involve focus-group sessions and product evaluations. If interested, please contact Kate Carroll as soon as possible at 961-5305, 1-6832, or [kacarrol@vt.edu](mailto:kacarrol@vt.edu).

### Adobe Systems provides workshop, presentation

On Friday, Nov. 17, the Virginia Tech Multimedia Users Group (VTMMUG), the New Media Center, and Educational Technologies are co-sponsoring a visit by Adobe Systems.

From 10 a.m.-noon in the New Media Center, Adobe will hold a hands-on workshop focusing on two of its latest products: GoLive and LiveMotion. Seating is limited to 20 participants and will be granted on a first-come, first-served basis. There is no pre-registration for this event.

In the second session, Adobe will provide a corporate overview and demonstrate software in its Web Collection, which includes GoLive, Photoshop 6, Illustrator 9, and LiveMotion. This session will be held from 2:30-4:30 p.m. in 100 Hancock.

For information, visit the VTMMUG web site at [www.nmc.vt.edu/VTMMUG/](http://www.nmc.vt.edu/VTMMUG/), or call James Dustin at 1-3405.

### YMCA hosts annual International Gift Festival

YMCA International Programs is holding its annual International Gift Festival at Cranwell International Center on Friday, Dec. 1 from 11 a.m.-7 p.m., and Saturday, Dec. 2 from 9 a.m.-4 p.m.

The International Gift Festival, a World Service Project,

sells hundreds of inexpensive items from around the world to provide food, education, and medicine in developing countries. For information call 1-6962.

### Tech police offers fingerprinting program

The Tech police department offers a free fingerprinting program for faculty and staff members and students who need security clearances or are applying for U.S. citizenship. Fingerprinting services are available daily after 6 p.m. They are also now provided to university employees on Mondays from 2-4 p.m.

### Phi Beta Kappa updating mailing list

The Mu of Virginia Chapter of Phi Beta Kappa is updating its mailing list to keep members informed about chapter activities. Any faculty member, staff member, or administrator who joined PBK as an undergraduate at any institution and has not heard from the chapter recently is asked to contact the Mu of Virginia Chapter secretary, Sandra Birch, at 1-6850 or [birch@vt.edu](mailto:birch@vt.edu).

### Traffic-enforcement reminder

Due to the amount of traffic at the intersection of Southgate and Duck Pond drives, no left turn will be allowed from Duck Pond drive between 7:30-8:30 a.m. and 4:30-5:30 p.m. Signs have been posted to this effect. This will be strictly enforced, and the only exception will be the BT.

## Marching Virginians will play for food

By Kyle Combs, University Relations intern

The Marching Virginians will play for food before the Virginia Tech-University of Virginia football game on November 25.

The Virginia Tech band's annual service project is a canned-food drive called "Hokies for the Hungry." Band members will split up and play their instruments for tailgaters who donate cans of food, cash, and checks. All the

cans and money collected will go to the Montgomery County Christmas Store, which allows low-income families to choose from donated items to give them a good Christmas.

In 1999, the band collected about 3,000 cans and \$1,500. The band's goal this year is to collect 55,000 cans—a can for every person at the game.

"It's a great community-minded project

for everyone involved. Every can and dollar we collect goes to a terrific program," David McKee, a band instructor, said.

This will be the fourth year for the food drive. The idea for the drive came from a proposal for a service project by candidates for membership in the Virginia Tech chapter of Tau Beta Sigma, the national honorary band

(See MARCHING VIRGINIANS on 4)

# 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

**Academic Certification Specialist**, 000044R, Pay Band 3, University Registrar.  
**Accounting Associate**, 000160H, Pay Band 3, RDP/Business Services.  
**Administrative/Research Assistant**, 007674T, Pay Band 4, ECE.  
**Administrative Assistant**, 002811R, Pay Band 3, Executive Vice President.  
**Administrative Associate**, 007693L, Pay Band 3, Alumni Relations.  
**Administrative Associate**, 006519L, Pay Band 3, University Development.  
**Admissions Plans/Clearances Team Member**, 001534R, Pay Band 3, Graduate School.  
**Animal Care Supervisor**, 006998J, Pay Band 4, Veterinary Teaching Hospital.  
**Animal Care Technician**, 002281T, Pay Band 3, Biology.  
**Animal Care Technician**, 002617M, Pay Band 2, Veterinary Teaching Hospital.  
**Animal Care Technician**, 007617M, Pay Band 2, Veterinary Medicine Experiment Station.  
**Assistant Manager**, 006522H, Pay Band 3, RDP/Dietrick Express.  
**Banquet Manager (Food Operations Manager Assistant)**, 001118G, Pay Band 3, DBHCC.  
**Buyer Specialist**, 002430F, Pay Band 4, Purchasing.  
**Computer Systems Engineer**, 006991J, Pay Band 5, RGS.

**Computer Systems Engineer**, 000180T, Pay Band 5, CS.  
**Computer Systems Engineer**, 007691T, Pay Band 5, ESM.  
**Computer Systems Engineer**, 001894T, Pay Band 5, CS..  
**Database And Application Development Specialist**, 007230R, Pay Band 5, RGS.  
**Development Associate for Student Calling Program**, 007628L, Pay Band 3, University Development.  
**Director, Gift Accounting/Constituent Record Management**, 001540L, Pay Band 5, University Development.  
**Editor, Virginia Tech Magazine**, 000654L, Pay Band 5, University Relations/Outreach Communications.  
**Editor/Communications Coordinator**, 007681G, Pay Band 5, OIRD.  
**Electrician**, 007565G, Pay Band 3, Physical Plant.  
**Electronics Technician**, 007656J, Pay Band 4, VTTI.  
**Executive Chef**, 000266H, Pay Band 4, RDP/Shultz Dining Center.  
**Executive Secretary Senior**, 002428M, Pay Band 3, FST.  
**Financial Aid Counselor**, 001683R, Pay Band 4, Scholarships/Financial Aid.  
**Four full-time food-service positions available.**  
**Housekeeping Supervisor**, 000824H, Pay Band 2, RDP.  
**Housekeeping Worker**, P002005C, Pay Band 1, Physical Plant.  
**Housekeeping Worker**, 001631G, Pay Band 1, DBHCC.  
**Housekeeping Worker Senior**, 002745H, Pay Band 1, RDP.  
**Housekeeping Worker Senior**, 006926H, Pay Band 1, RDP.  
**Interpreter for Deaf**, 007472J, Pay Band 3, Dean of Students.  
**Lab Specialist**, 001972M, Pay Band 3, CVM/MDL-Academic Affairs.  
**Medical Technologist**, 002596J, Pay Band 4, Veterinary Teaching Hospital.  
**Medical Technologist (Surgical Ward Technician)**, 2637J, Pay Band 4, Veterinary Teaching Hospital.  
**Office Assistant**, 007677T, Pay Band 2, VBI.  
**Office Manager/Administrative Assistant**, 000089T, Pay Band 3, CE.  
**Potwash**, 000750H, Pay Band 1, RDP/Dietrick Dining Center.  
**Program Support Technician**, 001166F, Pay Band 3, Business.  
**Program Support Technician**, 000028T, Pay Band 3, Scholarships/Financial Aid.  
**Programmer Analyst**, 007683G, Pay Band 5, IDDL.  
**Public Relations Specialist**, 007685T, Pay Band 4, ME.  
**Receptionist/Secretary**, 007345T, Pay Band 2, ME.  
**Security Lead Guard**, 001358G, Pay Band 1, Police.  
**Security Lead Guard (Parking Enforcement Off.)**, W020119G, Pay Band 1, Parking Services.  
**Software Developer**, 007690T, Pay Band 5, ESM.  
**Sous Chef**, 000940H, Pay Band 3, RDP/

Southgate Bake Shop.  
**Special Procedures Technician**, 006774M, Pay Band 3, Veterinary Teaching Hospital.  
**Special Projects/Utilities Crew**, 000216H, Pay Band 1, RDP.  
**Systems Analyst**, 007343L, Pay Band 6, ISC.  
**Truck Driver**, 007686T, Pay Band 3, Chemistry.  
**Virginia Tech Webmaster**, 001168L, Pay Band 5, WARD.  
**Web/Office Assistant**, 003132T, Pay Band 3, Biology.  
**PART TIME**  
**Administrative Assistant**, W023160L, Pay Band 3, 4Help/University Computing Support.  
**Admissions Plans/Clearances Team Member**, 001248R, Pay Band 2, Graduate School.  
**Animal Care Tech B**, W022914J, Pay Band 2, CVM.  
**Animal Care Technician A**, W022675M, Pay Band 1, Veterinary Teaching Hospital.  
**Animal Care Technician A**, W022155J, Pay Band 1, Veterinary Teaching Hospital.  
**Animal Care Technician A**, W022563M, Pay Band 1, Veterinary Teaching Hospital.  
**Animal Care Technician B**, W022190M, Pay Band 2, Veterinary Teaching Hospital.  
**Animal Care Technician B**, W020556M, Pay Band 2, CVM.  
**Audiovisual Technician**, W023110T, Pay Band 2, Registrar.  
**Banquet/Setup (Foa-b)**, W022143G, Pay Band 1, DBHCC.  
**Bus Driver**, W023140R, Pay Band 1, Motor Pool.  
**Flight Instructor**, W023153R, Pay Band 4, Airport.  
**Three part-time food operations positions available.**  
**Housekeeping Worker**, W020214J, Pay Band 1, Health Center.  
**Housekeeping Worker**, W022490H, Pay Band 1, RDP.  
**Housekeeping Worker**, W020574G, Pay Band 1, DBHCC.  
**Laboratory Technician Senior**, W020627T, Pay Band 2, Chemistry.  
**Office Assistant**, W02228T, Pay Band 3, Provost.  
**Office Services Assistant**, W022911G, Pay Band 2, Power Plant.  
**Office Services Assistant**, W020838J, Pay Band 2, Veterinary Teaching Hospital.  
**Office Services Specialist**, W023146M, Pay Band 2, Agricultural Education.  
**Office Services Specialist**, W022498T, Pay Band 2, CS.  
**Overnight ICU Vet Technician**, W022218M, Pay Band 2, Veterinary Teaching Hospital.  
**Pharmacy Assistant A**, W020839J, Pay Band 2, Veterinary Teaching Hospital.  
**Postal Assistant**, W022844L, Pay Band 2, Alumni Relations.  
**Program Coordinator**, W023168J, Pay Band 3, CDAC.  
**Radiologic Technician**, W022412M, Pay Band 3, Veterinary Teaching Hospital.  
**Radiologic Technologist**, W022238J, Pay Band 3, Health Center.

**Receptionist**, W021067L, Pay Band 2, Alumni Relations.  
**Secretary Senior**, W023132L, Pay Band 2, University Relations.  
**Security Guard**, W020470G, Pay Band 2, Police.  
**Security Guard**, W0204703G, Pay Band 2, Police.  
**Security Guard**, W0204704G, Pay Band 1, Police.  
**Security Guard**, W0204701G, Pay Band 2, Police.  
**Security Guard**, W0204702G, Pay Band 2, Police.  
**Storage Facility Assistant**, W023154F, Pay Band 2, University Libraries, Storage Facility Library.  
**Storekeeper**, W022291J, Pay Band 2, Veterinary Teaching Hospital.  
**UNIVERSITY ONLY**  
**Administrative Assistant**, U007692J, Pay Band 2, Cranwell Center.  
**Housekeeping Supervisor**, U002141C, Pay Band 2, Physical Plant.  
**Office Manager**, U000004F, Pay Band 3, Risk Management.  
**OFF CAMPUS**  
**Announcer of Classical Music**, 001702L, Pay Band 3, WVTF.  
**Enrollment Program Assistant**, 002091J, Pay Band 3, Northern Virginia Center.  
**Enrollment Services Assistant**, 007838J, Pay Band 3, Engineering.  
**Laboratory Specialist**, 007687J, Pay Band 3, Occoquan Laboratory.  
**Radio Reporter/News Anchor**, 007689L, Pay Band 4, University Relations/WVTF Radio.  
**Television Systems Engineer**, 007106R, Pay Band 4, Virginia Tech Roanoke Center.  
**Underwriting Account Executive**, 001963L, Pay Band 3, WVTF.

## FACULTY POSITIONS

### INSTRUCTIONAL

**Dept. of Accounting/Information Systems. Assistant Professor.** Contact: Wayne Leininger, 3007 Pamplin (0101). Deadline is February 1 or until filled.  
**Dept. of Civil/Environmental Engineering. Assistant/Associate/Full Professor.** Contact: Thomas Murray, 200 Patton (0105). Review begins January 2.  
**Division of Engineering Fundamentals. Assistant Professor.** Contact: Hayden Griffin, 332 Randolph (0218). Review begins February 15.

### NON-INSTRUCTIONAL

**VCE. Extension Agent, Family/Consumer Sciences (re-advertisement).** #FA830, Family/Human Development. Louisa Co./Planning District 10. Contact: John Dooley, 121 Hutcheson (0437). Review begins December 4.  
**VCE. Extension Agent, Family/Consumer Sciences (re-advertisement).** #FA691, Management, Housing, Consumer Education, Fauquier Co. Contact: John Dooley, 121 Hutcheson (0437). Review begins December 4.  
**Pamplin College of Business. Director, Undergraduate Career Services.** Contact: Norrine Bailey Spencer, 1046 Pamplin (0209). Review begins November 27.

## LEADERSHIP

*Continued from 1*

fessorship, and various activities.

The nine members of the center's advisory board are: Jerrold P. Allen, commandant of cadets; Robert C. Bates, dean, College of Arts and Sciences; Barbara L. Carlisle, director, Center for Interdisciplinary Studies; Landrum L. Cross, vice president for Student Affairs; Henry J. Dekker, former rector of the Virginia Tech Board of Visitors and member of the Pamplin Advisory Council; Patricia B. Hyer, associate provost; Jon M. Shepard, head, Department of Management; Sorensen (who also chairs the

board); and Norrine Bailey Spencer, associate dean for undergraduate programs, Pamplin College of Business.

Board members meet regularly during the year to discuss new initiatives and cooperative efforts. Many members also give presentations about leadership programs at national meetings.

"Leadership needs to be formally taught and practiced—it cannot be achieved via osmosis," said Dekker, who wrote a letter to support the application for the award. Dekker adds that he and other board members are "very pleased with the center's progress."

Spencer, who prepared the award application with Sorensen, said the interaction and col-

laboration of the various offices "has produced a wealth and richness of leadership programs that would not have occurred otherwise."

The center's uniqueness, she said, stems from the breadth of the fields represented and the collaboration of ideas among its units. "We come from vastly different cultures—military science and women's studies, for example. Our work together has required learning one another's 'languages' and developing a renewing respect for our professional fields."

For more information about the Center for Leadership Studies, visit [www.cob.vt.edu/leadership](http://www.cob.vt.edu/leadership).



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; David Nutter, associate director for Public Affairs.

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Letters to the editor and questions for "Ask Spectrum" should be addressed to the editor, 105 Media Building, Virginia Tech, Blacksburg, VA 24061.

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

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## CVC WINNER

Don Waldron, professor of small-animal clinical sciences in the College of Veterinary Medicine, has won lunch for two at the Donaldson Brown Hotel and Conference Center. His name was drawn from those sending Commonwealth of Virginia Campaign pledge cards to Gloria Smith by October 6. Drawings will be held weekly. Future prizes include a parking permit for one year and a weekend night plus breakfast for two at the Hotel Roanoke.



Don Waldron

## UNIVERSITY

Continued from 1

ture for a viable research program."

Steger said he has "every confidence that Virginia Tech can step forward," but cautioned that the university can either go up or down. He said it is important to go up "because members of our peer group are not sitting still. If we don't keep up, it would be a reason for faculty salaries to go down relative to our peer group."

He also said that the university has to go up in rankings to be an attractive partner, to continue to attract resources. "People respect what we do," he assured the gathering, "as witnessed by our membership on the Oak Ridge National Laboratory management team and, on a global scale, in the leadership of the Disaster Risk Management Institute."

Steger outlined the following requirements to become a top-30 research university:

1. Motivation. "We are going to have to get further out on the risk curve," he said. "As we do the self-study, we are going to have to examine what being a top-30 university will take. This university cannot go anywhere unless the faculty wants to go there. With a knowledge organization, motivation has to come from within."

2. Resources for graduate students. Steger cited suggestions made by Len Peters, vice provost for research and dean of the Graduate School, including matching funds from the university's affiliate corporations to provide graduate-student support, and from the institution to enhance faculty-member proposals for grants for federal traineeships.

Steger said next year's high-school gradu-

ates represent one of the largest classes ever and they want to go to Virginia's premier universities, including Virginia Tech. "A bill has been introduced in the General Assembly to set in-state/out-of-state student ratios, which would reduce resources since out-of-state students pay 100 percent of our cost. We have to work at growing our graduate enrollment or we will not meet our goal."

3. Build the research space and add infrastructure. Partnerships can help, he said. He gave the Virginia Bioinformatics Institute building program at the Corporate Research Center as an example. "We have to change the state's attitude about resources for research-facility construction," Steger said. He said members of the General Assembly are considering introducing a \$700-million bond issue. "SCHEV has done the space needs study. There is a growing realization in the General Assembly regarding the need for more facilities. Institutions that are able to leverage resources will be the one's able to get support," Steger said.

Steger introduced Peters' suggestion that research infrastructure could be increased by using a portion of the equipment trust fund for large-ticket items that would benefit research programs in more than one, such as \$800,000 NMR equipment needed to launch research programs in the colleges of Agriculture, Arts and Sciences, Engineering, and Veterinary Medicine.

4. More faculty members. "People here are working very hard," Steger said. "We can't ask you to do more research and take on more students, and then do some outreach if you have time on Sunday." He said the university gave the

dents who applied were admitted to at least one of these four institutions. The average SAT's and GPA's of students who were not admitted were significantly lower than those who were. We believe this shows that qualified Virginia students have a good chance of being admitted to one of our selective institutions—but again, we can never guarantee that every student will be admitted to his or her first choice.

Today we ask you not to focus on a narrow group of institutions, but on the system as a whole. Across Virginia we have a wide range of colleges and universities, public and private. Their percentages of Virginia students range

## RDP offers guaranteed-housing program

By Lori Greiner

Virginia Tech's department of Residential and Dining Programs (RDP) will once again offer current students wishing to live on campus during the 2001-2002 academic year a guaranteed-housing option.

This program gives current students the opportunity to bypass the traditional lottery process and guarantees that they will be offered a housing contract to live on campus, if they are

one of the first 2,500 to apply.

Between November 27 and December 1, students wishing to guarantee housing for the 2001-2002 academic year may log on to the RDP web site at [www.rdp.vt.edu](http://www.rdp.vt.edu) and enter their name. The first 2,500 to do so will be offered a contract the week of December 4. The contract must be signed and returned by December 15 for the housing guarantee to be valid.

substantially more are needed to become a top 30-research university."

5. Significant library holdings. In comments after the meeting, Steger said a fifth critical element of advancement is new investments in library acquisitions.

"I see excitement about moving Virginia Tech to the next level of accomplishments," the president said. "I think when we call upon business and alumni for support, it will be there."

## GRAD STUDENT'S

Continued from 1

the actual mechanism by which magnesium alters calcium-carbonate growth has remained controversial for the past 25 years. Davis and his colleagues resolved this long-standing controversy. "By comparing molecular-scale measurements with theoretical crystal-growth impurity models we were finally able to achieve a physical understanding of the way in which magnesium modifies calcium carbonate growth," he said.

Many bio-minerals are so well adapted to their individual roles that they exhibit remarkable properties, making the processes involved in 'bio-mineralization' of interest to a wide array of scientific disciplines. Another reason the bio-mineralization process is of interest is because organisms are able to create structures of astonishing complexity that are remarkably strong but lightweight. Scientists are currently unable to reproduce materials with similar properties.

"This research brings us a step closer to understanding how organisms are able to form crystalline materials with unique structural properties," Davis said. "We hope to eventually develop new materials based upon the complex strategies used by organisms to produce their own mineral shelters." These materials will allow us to develop new light-weight ceramics for medical and high-tech applications.

The research was funded by the U.S. Department of Energy, Division of Chemical Sciences, Geosciences and Biosciences.

Davis is pursuing research that has grown from his interest in earth sciences. "I like to see how the basic processes that occur at mineral surfaces relate to the big picture of how the Earth system works." The presence of magnesium in calcium-carbonate bio-minerals is used by scientists as an indicator of past climates. "Ancient seawater temperatures can be determined from the amount of magnesium present in calcium carbonate bio-minerals," Davis said. From there he became interested in the process. Now the funding for his research comes from both those interested in climate change (NSF) and those interested in the development of new materials (DOE). He won the Gold Award for outstanding graduate research at the 2000 meeting of the Materials Research Society for his molecular-level study of the bio-mineralization process, which will now be published in *Science*.

Davis received his bachelor of science degree in biochemistry from the University of Virginia in 1997, his master's degree in geochemistry from Georgia Tech this past spring, and is now a Ph.D. student in geological sciences at Virginia Tech. Dove, an associate professor at Virginia Tech, was also his major professor at Georgia Tech before relocating to Virginia Tech this summer.

## STEGER

Continued from 1

we run into the fiscal facts of life. For the four institutions under consideration, the weighted average in-state tuition is about \$2,500. For out-of-state students, the figure is \$11,600—a difference of more than \$9,000 per student.

What this means is that out-of-state students—who are highly qualified academically—are providing vital financial support for our institutions. While this is not the main reason we enroll out-of-state students, we believe that this is a net gain for the commonwealth. If history is any guide, we also have no reason to think that if we were forced to replace out-of-state students with Virginia students, the commonwealth would replace the lost funding. Even if the state were to replace the lost revenue, we do not believe that would be a wise use of scarce state funds for higher education, as it would do nothing to improve our already under-funded budgets.

Some have suggested that this is a regional issue within Virginia, and that somehow Northern Virginians are being disadvantaged in this process. We have examined the data from our four admissions offices for fall 2000, and these figures are essentially the same for all regions of the state. Of all Virginia applicants to the four institutions, 64 percent were offered admission to at least one. We cannot guarantee that every student will receive admission to his or her first choice; that is obviously impossible. But the fact is that nearly two-thirds of Virginia stu-

from over 90 percent to just over 50 percent. Overall, out-of-state students provide 20 percent of the system's enrollment, and we believe that is a reasonable number. Our diverse system has the capacity to educate all Virginians in unique ways from institution to institution. In our view, preserving that diversity and uniqueness should be a cornerstone of higher-education policy. We hope that you will protect this fundamental aspect of Virginia higher education by not trying to apply a one-size-fits-all policy to such a wide and healthy diversity of institutions.

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## MARCHING VIRGINIANS

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sorority.

The band hopes that alumni of both universities will give to the cause. This game draws a lot of Virginia Tech alumni each year, especially from the Charlottesville area with more than 1,500 alumni, the Richmond area with more than 10,000 alumni, and the Northern Virginia area with more than 17,000 alumni.

"It's great for our students to get out there and make a contribution to society. I enjoy seeing the students 'giving something back,'" McKee said.