Spectrum will resume normal publication on September 24.

Today’s special edition of Spectrum contains coverage of 2004 university award winners who were honored yesterday by President Charles Steger and Provost Mark McNamee. Congratulations to the award recipients for their outstanding achievements.

Sharon Johnson
Robert Siegle
Sheryl Ball and Catherine Eckel

Howard Feiertag
Barbara B. Bunn and Gary L. Long
Joseph L. Scarpace

SPECIAL AWARDS EDITION

Sharon Johnson, assistant professor of foreign languages and literatures in the College of Liberal Arts and Human Sciences, has received the 2004 Diggs Teaching Scholar Award.

In six years at Virginia Tech, Johnson has established herself as an exceptional teacher and scholar. More impressively, she has distinguished herself in her field as a pioneer in the pursuit of innovative pedagogical and scholarly initiatives for cross-cultural communication and education.

Johnson has created cross-cultural student projects “that challenge both students and professors to interrogate their own cultural perspectives as they strive to understand disparate points of view,” Folkart said.

Robert Siegle, professor of English in the College of Liberal Arts and Human Sciences, has received the 2004 Diggs Teaching Scholar Award.

One of Siegle’s students wrote, “This course changed my life. The world is new to me.” A fellow professor and former student who attended Siegle’s classes, said, “I went every day, all semester, because I knew how valuable the information he was giving me was. His explanations opened doors for me into my own work.” Department Head Lucinda Roy said Siegle’s innovative teaching of a first-year writing course “led the department to ask him to lead revisions of the entire composition program.”

His interest in contemporary work in literature, film, architecture, and music has produced a series of new courses in Contemporary Culture, taught both in the College of Architecture and Urban Affairs and English, Roy said.

Sheryl Ball and Catherine Eckel, who share a research methodology called experimental economics, have received the 2004 Diggs Teaching Scholar Award.

Ball, associate professor of economics and associate dean for curriculum, instruction, and advising, and Eckel, professor of economics, both in the College of Science, have used innovative ways to use technology in the teaching of large introductory classes. A valuable hands-on experiment allows students to be either buyers or sellers and encourages greater understanding of true market experiences. Large classes, however, make these markets awkward or impossible. To accommodate larger class sizes, Eckel worked with the National Science Foundation to develop the idea of using handheld wireless devices with a server to facilitate the use of experiments. Called the Wireless Interactive Teaching System (WITS), the program uses wireless technology to adapt small classroom active-learning techniques to large introductory economics courses. The system includes wireless handheld PDA’s in an intranet served by a wireless laptop computer.

In a test of the system in fall 2003, the researchers found substantial and statistically significant evidence of better test scores, deeper thinking about course concepts, and improved teaching evaluations compared to standard-format classes. The final exam grade was 6.59 percentage points higher (about 2/5 of a letter grade) in the experimental class. Because of this innovative and effective use of technology in teaching, Department Head Aris Spanos said “the system they are developing has the potential to revolutionize the teaching of introductory economics.”

Barbara B. Bunn and Gary L. Long have received the university’s 2004 team Alumni Award for Outreach Excellence.

Bunn conceived of, designed, supervised construction of, and ensured implementation for the first-of-its-kind Mobile Chemistry Laboratory (MCL) outreach program in the United States, a program that operated for eight semesters from fall 2000 to spring 2004. The mobile lab delivers a work area for 24 students and contains high-tech chemistry instrumentation and computers. The laboratory reached from far Southwest Virginia to inner-city Richmond five days per week and included one school that “didn’t even have a beaker,” Bunn said.

As its traveling teacher, Bunn formed close ties between Virginia Tech and many high-school chemistry teachers by enhancing teacher preparation and expertise in chemistry and taking the high-technology classroom to more than 18,000 students.

Long later became director of the MCL, developing ties to industry leaders and increasing learning and job opportunities for students using the MCL. He created the ChemKit program through which non-instrument-intensive, low-tech chemical experiments are sent out to teachers to support areas of the Standards of Learning (SOL’s). Long also started advanced workshops for chemistry teachers.

Through the MCL, more than 60 high-school teachers received training in five basic workshops since 2001. The MCL was responsible for 32,464 student-conducted experiments in 138 schools over four years. In addition, 11,448 ChemKit student-conducted experiments were done at 66 schools.

The success of the MCL can be measured in part by the gains in SOL scores over its years of operation. On average, participating schools realized a cumulative gain of 37.2 points, compared to a state average gain of 20.7 points.

Joseph L. Scarpace, professor in the Department of Geography, has received the university’s 2004 Alumni Award for Excellence in International Programs.

Scarpace has demonstrated unparalleled excellence in supporting and enhancing international programs and curricula at Virginia Tech. In particular, his long-term dedication to providing rewarding study-abroad experiences in Latin America is highly worthy of recognition.

His endeavors have combined a fruitful blend of classroom activities and intensive fieldwork experiences that have enriched the education of countless students and adults from Virginia Tech throughout the United States.

Scarpace’s Study Abroad Program Cuba is now the longest-running program of its kind in the United States. The program has been widely acclaimed by prestigious organizations such as the American Geographical Society, World Affairs Council of Philadelphia and the Association for Collegiate Schools of Planning.
Charlotte Breeding

Charlotte Breeding, executive secretary to the chief of the Virginia Tech Police, has received the university’s 2004 President’s Award for Excellence. Breeding coordinates police services with over 20 agencies to ensure that athletic events are properly staffed. The smooth operation of the Police Department is due largely to her efforts. She not only is dedicated to her job, but she constantly performs duties that are not part of her job description. She is a conscientious worker and loyal to both the Police Department and the university.

Breeding’s duties include monitoring the budget, processing payroll for all salaried employees and handling all purchasing requests and paperwork. She makes multitasking seem effortless as she processes and organizes paperwork necessary for up to 135 police officers at a time during special events.

Breeding’s work has been consistently superior as is evidenced by continuous nominations the committee receives on her behalf each year. She epitomizes the ideals behind the Presidents Award.

Jane Harrison

Jane Harrison, administrative assistant in the School of the Arts, has received the university’s 2004 President’s Award for Excellence. Harrison is an outstanding representative for Virginia Tech and an exceptional ambassador for arts at Virginia Tech. She responds with the utmost professionalism and speed. Harrison provides the Alumni Association with musical entertainment, ranging from jazz quartets to a cappella groups 25 to 30 times a year. She analyzes her clients’ needs, searches for student performers, and finalizes details for the most appropriate entertainment for alumni and other programs.

Harrison, in addition to performing all the tasks of an administrative assistant, has assumed the role of graduate teaching assistant for the Fine Arts class taught by Tony Distler. She maintains grades for 1,100 students in the class, schedules and grades make-up tests, and counsels students.

Harrison not only gets the job done, but does it with a positive, can-do attitude. She is described as a university employee who embodies the university motto “Ut Prosim,” —“That I May Serve.”

Byron D. Nichols

Byron D. Nichols, power plant superintendent, has received the university’s 2004 President’s Award for Excellence. Nichols’ responsibilities as supervisor of power-plant operations require him to stay abreast of local, state, and federal regulations for environmental, health, and safety issues. He has not only maintained a working knowledge of these regulations, but he has also worked consistently and collaboratively with Environmental Health and Safety Services to improve his department’s compliance with the multitude of regulations that impact their operations.

The university community depends on Nichols to provide steam, heat, hot water and power for campus facilities. EHSS depends on him to accomplish all of these duties while protecting employees and the environment. He has, without a doubt, done his duty and continues to exceed all expectations.

His efforts have earned him the respect of his employees as well as those in other departments who have worked with Nichols. He is recognized as an employee who leads by example.

Teresa Phipp's

Teresa Phipp's, program support technicin senior in the Department of Landscape Architecture, is a winner of the university’s 2004 President’s Award for Excellence. Phipp's has served as head secretary and administrative assistant to the head of the Department of Landscape Architecture since 1988. She is described as “the glue holding the day-to-day operations of the department together.” She is a self-directed employee who is always at work, always on time, and always performing beyond the expectations of her position description.

Phipp's contributions are evident to students, faculty and staff members in the department and college and the influence of her actions extends to the Washington Alexandria Architecture Center and George Washington University.

Gary Downey

Gary Downey, professor of science and technology studies in the Department of Science and Technology, has received the university’s 2004 W.E. Wine Achievement Award. Downey is a teacher who not only instructs his students, well, but also touches their lives in a deep and profound way. He teaches an award-winning course in Engineering Cultures which attracts large numbers of students. In the class, Downey motivates his students to not only seek more courses in science and technology studies, but often to change their educational direction completely. One of his students wrote, “No single course or professor at Virginia Tech had a greater impact on my life.”

He helps students develop concrete strategies for understanding cultural differences and engaging in shared problem solving. In his graduate course, Downey recognized that his students’ course expectation did not match his own, and responding to their needs, re-drew the course. Doing so demonstrates Downey’s unselfish and unflagging commitment to being the best possible teacher for each individual student.

Downey stands out as a passionate and engaging instructor. He deftly combines course materials with personal anecdotes and humor. He is an outstanding and innovative teacher as well as an indispensable mentor.

Timothy Pratt

Timothy Pratt, professor of electrical and computer engineering in the College of Engineering, has received the university’s 2004 W.E. Wine Achievement Award. Pratt’s particular strengths are outstanding classroom delivery, and presenting complicated, mathematically dense engineering material in a way that leaves students with an intuitive understanding of both the math and the engineering. He constructs test and project assignments that both stretch the students’ capabilities and teach them at the same time, and inspires student to noteworthy performance.

In addition to his achievements in teaching on-campus courses, Pratt is known for his years of excellent work with distance learning. He has been an enthusiastic supporter of the Commonwealth Graduate Engineering Program since its inception and directed it for two years.

He wrote the book” on TV teaching, and makes “how-to” presentations about it to faculty Development Institute classes. Pratt was the key faculty person for establishing resident Ph.D. programs in electrical and computer engineering at several non- Blacksburg sites.
Trivedi and Herve Marand

Ketan Trivedi and Herve Marand both of the Department of Chemistry in the College of Science, have received the 2004 XCaliber Award. Trivedi, instructor of chemistry, and Marand, professor of chemistry, developed the Chemistry DVD, which provides a fully guided, self-paced learning environment.

It provides students with three-dimensional animations and videos of chemical expressions, allowing the student to experience a hands-on learning environment through technology.

The DVD also affords a student at a distance the opportunity to view chemical experiments as if they were in a classroom. Students take tests at frequent intervals throughout the lessons to determine their understanding of the material. The DVD has been used on campus and at Virginia Tech sites in Richmond, Abingdon, Northern Virginia, and Tidewater.

Marand has been a member of the American Chemical Society, American Physical Society, and Materials Research Society, as well as the Society of Plastics Engineers. He received the National Science Foundation Young Investigator Award in 1994.

Before coming to Virginia Tech as an adjunct professor, Trivedi was chair of Bio-medical Sciences in the College of Health Sciences in Roanoke. Trivedi is the original co-author, and publisher of a 3-CD set titled “Mathematical Operations Using a Scientific Calculator,” an interactive DVD titled “Chemistry One,” and a multimedia, interactive DVD titled “General Chemistry.”

Sheryl Ball, Catherine Eckel, and Scott Midkiff

Sheryl Ball, Catherine Eckel, and Scott Midkiff have received an XCaliber Award for excellence by a team. Ball, associate professor of economics and associate dean for curriculum, instruction, and advising, and Eckel, professor of economics, both in the College of Science, incorporate experimental methodology in teaching economics. The successful “double-action market” experiment allows students to set up a market in the classroom. This valuable hands-on experiment allows students to be either buyers or sellers and encourages greater understanding of true market experiences.

To accommodate larger class sizes, Eckel worked with the National Science Foundation to develop the idea of using hand-held wireless devices with a server to facilitate the use of experiments. Called the Wireless Interactive Teaching System (WITS), the program uses wireless technology to adapt small classroom active-learning techniques to large introductory economics courses. The system includes wireless handheld PDAs’s in an intranet served by a wireless laptop computer to facilitate the use of interactive exercises with large numbers of participants. The researchers have used the system to scale up market simulations and economic games to teach introductory economics.

Midkiff, professor of electrical and computer engineering, with a specialty in wireless technology, solved the technical problems involved in using a number of wireless devices to do the project. Midkiff joined the Bradley Department of Electrical and Computer Engineering in 1986, where he is presently a professor. He is a senior member of the IEEE, and a member of the ACM and ASEE. He is a member of Phi Beta Kappa, Tau Beta Pi, andEta Kappa Nu honorary societies.

Anthony Colaianni

Anthony Colaianni, associate professor of English in the College of Liberal Arts and Human Sciences, received the university’s 2004 Alumni Award for Excellence in Teaching. Colaianni is known for his work in three areas: teaching, student advising, and enhancing the education environment for students. In English, humanities, and University Honors, he has taught courses ranging from first-year writing to graduate courses. He is known as “an exemplar of humanistic teaching,” and, in 1984, he received the State of the Art Award presented by English M.A. students. Besides receiving the certificate of teaching excellence in 1979, he was a finalist six other years. Students give him the highest of teaching scores, and his teaching has long-term impacts on his students.

Thoughtfulness, consideration, open-mindedness, consistency, and fairness are Colaianni’s teaching goals. He sees each student as a “colleague and intellectual fellow traveler” and believes he is as likely to learn from them as they are from him. Perhaps one of the best student evaluations was that, “although the material was really old and boring, he made it extremely interesting.” Known for his tireless efforts to discuss students’ futures with them, Colaianni also encourages students to think for themselves in class and gives them the freedom to express themselves about the literature studied.

Charles Reinholtz

Charles Reinholtz, assistant department head and alumni distinguished professor of mechanical engineering in the College of Engineering, has received the university’s 2004 Alumni Award for Excellence in Teaching.

Reinholtz held the first rotating W.S. White Chair for Innovation in Engineering Education and received the University Wine Award, three College of Engineering Certificates of Teaching Excellence, the Dean’s Award for Teaching Excellence in Engineering, the Ingersoll-Rand Outstanding Mechanical Engineering Faculty Member Award by student vote, twice, and the National Science Foundation’s Presidential Young Investigator Award for Teaching and Research Excellence.

Reinholtz serves as faculty advisor to the Virginia Tech Student Chapter of the American Society of Mechanical Engineers, which is consistently among the largest and most active in the nation and has won the Ingersoll-Rand Award as the best in the world four of the five years the award has been offered. He has obtained funding from several corporations to support student projects, and his students consistently win top awards in design, writing, and professional and technical presentation contexts. In addition, he has helped shape the department’s world-renowned senior design program.

Sue Saffle

Sue Saffle, instructor of English in the College of Liberal Arts and Human Sciences, has received the university’s 2004 Sporn Award for the Teaching of Introductory Subjects. Since 1982, Saffle has taught courses for the Department of Communication Studies, Humanities Program, and Department of English, where she has been a full-time instructor of English since 1997.

Winner of the Joyce Genty Smoot Award for Outstanding Teaching by a full-time instructor in 1999, and inducted into the Academy of Teaching Excellence last spring, Saffle also has taught literature in Budapest, Hungary, and at the American University of Bulgaria. She spent the 2000-2001 academic year in Helsinki where her husband, Michael, was Bicentennial Fulbright professor of American Studies at the University of Helsinki.

In her teaching at Virginia Tech, she uses extensive reading background, her writing experience, and her interest in both her subject matter and her students make her an inspiring teacher. In addition to teaching four courses each semester, Saffle has piloted innovative courses, hosted Croatian and Finnish students, worked with at-risk students, and, most recently, contributed to the English department’s newly published Handbook.

Jaime De La Ree Lopez

Jaime De La Ree Lopez, associate professor and assistant department head of the Bradley Department of Electrical and Computer Engineering, has received the Sporn Award for the teaching of introductory engineering subjects.

De La Ree Lopez’s students consistently describe him as the best professor they have had at Virginia Tech. He is among the rare breed of professors who are passionate about teaching and who take the time to make sure everyone understands the material, regardless of whether they are his students or not. He embodies the meaning of the Engineering Sporn Award.

A student in De La Ree Lopez’s Electrical Theory class said “the material was daunting, and the problem solving was frequently difficult, but the class was one of the most enjoyable classes I have taken at Virginia Tech, due almost entirely to the pleasant teaching style of Dr. Jaime De La Ree. He has a unique capacity to make the students feel confident about the material and to make it seem manageable, even when it is difficult. He is extremely patient and willing to take extra time to explain things when needed.” Another student said De La Ree Lopez’s impact on students was great and that he was able to get “the principles of electrical theory and circuitry across to those like myself who struggle in the particular area.”
Harry W. Gibson

Harry W. Gibson, professor of chemistry in the College of Science, has received the Alumni Award for Research Excellence. Gibson’s research has focused on supra-molecular chemistry, “chemistry beyond the molecule,” continuously supported by the National Science Foundation since 1987. This area, inspired by nature’s extensive employment of molecular recognition and self-assembly in enzymes and other site-specific processes, is now a major field, important not only to our understanding of natural systems, but increasingly in synthetic materials as well. The aim is to mimic the high degree of selectivity and binding strength observed in biological systems so that complex, hierarchical structures with targeted functional properties can be self-assembled from readily available molecular building blocks. This work is part of the growing field of nanoscience and nanotechnology.

Gibson and his group pioneered the application of molecular recognition and self-assembly to the synthesis and characterization of novel polymer architectures, the polyelectrolyte family, via “threading” cyclic molecules with linear polymeric molecules, forming molecular analogs of strings of pearls with potential applications ranging from electroactive materials and memory devices to drug delivery.

Romesh C. Batra

Romesh C. Batra, the Clifton C. Garvin professor of engineering science and mechanics, has received an Alumni Award for Excellence in Research. Batra’s research has helped scientists and engineers understand how materials fail when they are sheared, e.g., as could happen during a catastrophic natural disaster or a terrorist event. While the brittle fracture of metallic structures has been well understood for some time, many failures occur only after a material has been significantly deformed and contains multiple cracks.

In the mid-eighties, researchers began to notice that the presence of these bands occurs before the ductile failure of a material that has been subjected to sudden large shock loads, such as those induced by a blast. While his current research continues to advance the status of knowledge in this field, it will contribute to the design of structures that are resistant to explosions and hurricanes.

Batra came to Virginia Tech in 1994 as the Garvin professor of engineering science and mechanics. He has received a Humboldt Award to the Technical University of Berlin and the Eric Reissner Medal from the International Society of Computational Engineering Science.

Jennifer Unroe

Jennifer Unroe, Extension agent, 4-H Youth Development in the Allegheny County Extension Office, has received the university’s 2004 Alumni Award for Excellence in Extension.

Unroe has provided leadership to the 4-H program in Allegheny County for 16 years, and has proven herself as a leader in their community. She has worked with youth in 4-H clubs, through the schools and in the alternative school. She has partnered with other community agencies and organizations to work together to improve the quality of life for youth, adults and families.

Unroe has taken the initiative to expand her work to include character education by participating in national CHARACTER COUNTS! training and has received national certification. She is respected for her work with CHARACTER COUNTS! by her peers and other professionals across the state.

She works well as the leader or member of a team. She is diligent and meticulous with her work and is one to get the job done. She sets high expectations for herself both professionally and personally.

Greg Evanylo

Greg Evanylo, Extension specialist in the Department of Crop and Environmental Sciences, has received the university’s 2004 Alumni Award for Excellence in Extension.

Evanylo’s research-supported Extension program addresses the management and use of wastes as they impact agricultural productivity and water quality. His program has become a model for Extension programs that deal with by-product processing and processing and soil and water quality nationally.

One of Evanylo’s greatest accomplishments has been to calibrate waste, soil and plant testing methods that are employed to reduce the unnecessary application to agricultural land of nutrients from fertilizers, animal manure, wastewater treatment biosolids, industrial sludges, and other waste by-products.

Evanylo has expanded his investigation and education of environmental quality into the relatively new area of soil health, especially as it is affected by the use of waste by-products as soil amendments. His educational soil-quality kits have hastened the adoption of enhanced environmental quality nationally.