John Riley recently was interviewed on BU’s digital forensics program by Forensic Focus.

“We stress the importance of knowing how the computer is organizing files and generating artifacts so that what a tool produces is understood,” he said. “Our graduates are prepared to defend their results. We also put this work in context. It’s not just finding a deleted file, it’s finding evidence which may change a person’s life. So beyond knowledge and skills, we foster a sense of responsibility and integrity.”

For the full interview, visit http://tinyurl.com/9lvwhoj.

### Toni Trumbo Bell
Associate Professor
Chemistry and Biochemistry

Toni Bell came to BU as a faculty member in 2002, after completing her doctoral degree in chemistry at the University of Louisville. She enjoys sharing her love of chemistry in the classroom and laboratory and believes helping students make connections between chemistry and human health is important. Although she usually teaches biochemistry and physiological chemistry, Bell makes these ties in any course she teaches.

Her primary research focus is hemostasis, or blood clot formation. During summer 2012, Brandon Brown ’13 and Jessica Viscomi ’13 worked with Bell on two potential inhibitors of clot formation. They plan to present their results at the American Chemical Society Meeting, New Orleans, in the spring 2013.

Bell enjoys investigating many areas of science. She worked with Amanda Pritzaff ’15, who spent the summer extracting fragrance oils from Pennsylvania native flora and has developed a preliminary fragrance blend. Bell’s most recent publication in the peer-reviewed journal Analytical Biochemistry describes the results of her work with Broc Wenrich on interactions between DNA and Coomassie Blue.

She has one piece of advice for undergraduates: “Your professors are here because they love to teach. We are always working on new tools to help you perform well academically and in general. It is up to you to use those tools.”
Andrea Fradkin joined Bloomsburg University in fall 2006 following completion of her post-doctoral fellowship with The University of Pittsburgh where she was the coordinator of the University of Pittsburgh Medical Center Biomechanics Golf Fitness Laboratory in Pinehurst, N.C.

Born and raised in Australia, Fradkin received her doctorate in epidemiology and preventive medicine at Monash University in Melbourne. Her thesis, On par for preventing golf injuries: Does warming-up work? continued work from her master’s, honors and undergraduate research.

Fradkin’s research merges epidemiology, injury prevention, performance improvement and biomechanics. She has researched golf for 13 years, focusing on identifying injury patterns and trends and investigating ways to help prevent injuries and improve performance. She is considered the world’s leading expert in investigating the benefits a warm-up program provides to performance improvement and injury prevention.

She has published more than 15 articles in peer-reviewed journals and three chapters in peer-reviewed books; all have been cited more than 250 times by other peer-reviewed publications. She has presented her findings at more than 60 conferences, including five invited international conference presentations. Interviews with Fradkin have appeared in The New York Times, Biomechanics Magazine, Golf Digest and Bloomsburg: The University Magazine.

Fradkin is active in departmental and university-wide committees, serves as a manuscript reviewer for 10 journals, and often is asked to chair sessions at national and international conferences. She worked as a consultant in two, multi-million-dollar grants in collaboration with The University of Pittsburgh Medical Center. She has been invited to serve at the regional and national level of the American College of Sports Medicine and recently received fellowship status with the organization.

Diversity is a theme that runs throughout the professional accomplishments of Mindi Miller. She has expertise in cross-cultural health care, based on her doctorate in anthropology and master's degrees in both nursing and education, and she is certified in rehabilitation nursing. Over the last two decades, she authored textbook chapters and ancillaries with Mosby Publishers. Most recently, she wrote “A Lifespan Perspective on Individuals and Families” in The Specialty Practice of Rehabilitation Nursing: A Core Curriculum, 6th Edition, 2011.

Miller obtained Teaching and Learning Enhancement (TALE) grants with Michelle Ficca, chair of the nursing department, to purchase TurningPoint equipment for off-campus education in 2010 and with Linda Neyer, reference librarian, and Annette Gunderman, associate professor of nursing, for research on information literacy within nursing curricula in 2011.

She has studied nurse managers’ communication patterns with Sheila Hartung, assistant professor of nursing, receiving a grant in 2008 from Geisinger Medical Center. In June 2012, they obtained a Sigma Theta Tau, Theta Zeta Research Award to help fund additional research into nursing communication issues within rural hospital settings. Miller’s poster and podium talks include presentations at the annual scientific sessions for the Eastern Nursing Research Society (ENRS) two years in a row.

During the 2012 spring term, Miller received the Provost’s Award for Excellence in Research/Scholarly Activity. The focus of her activities at Bloomsburg University remains centered on assisting students and community nurses achieve their potential as professionals. She values collaboration and says, “It is not the task but the team that turns challenges into job satisfaction.”
Shaheen N. Awan is professor and graduate coordinator for speech pathology. He teaches courses in applied speech science, research in speech-language pathology, voice disorders, craniofacial disorders, motor speech disorders and clinical instrumentation in speech pathology.

Awan's research work focuses on computer analysis of disordered speech and voice. He has published research articles and book chapters, wrote The Voice Diagnostic Protocol and developed the spectral/cepstral analysis computer algorithms incorporated into the Analysis of Dysphonia in Speech and Voice program by KayPentax, Montvale, N.J. Other research has focused on the use of the Dysphonia Severity Index (DSI), the effect of thyroidectionomy on voice production, and the effects of smoking on the voice. A consultant with KayPentax, Awan does clinical practice in the areas of voice assessment, including videostroboscopic evaluation of voice, and treatment.

Awan is a reviewer for several journals, including the Journal of Speech, Language & Hearing Research, Laryngology, Folia Phoniatrica et Logopaedica and the Cleft Palate Craniofacial Journal. He is an editorial board member for the Journal of Voice. In 2009, Awan was elected a fellow of the American Speech-Language-Hearing Association (ASHA) in the areas of research, teaching and clinical service. The status of fellow, retained for life, is one of the highest honors this professional organization can bestow. It recognizes professional or scientific achievement and is given to a member who has shown outstanding contributions to the profession.

Awan holds a Bachelor of Arts degree from the University of Western Ontario, Canada; a Master of Science in Speech Pathology from Clarion University; and a doctoral degree in speech pathology from Kent State University. Prior to coming to Bloomsburg University, Awan held faculty positions at the University of North Texas and Northern Michigan University.

Cynthia Venn came to BU in fall 1996 after more than 10 years as an oceanographer on research cruises in the Pacific Ocean, the Arabian Sea and the Weddell Sea in the Antarctic. She also taught oceanography and geology courses at several Pennsylvania State System of Higher Education (PASSHE) institutions, as well as the University of Pittsburgh, where she completed her doctoral degree in geology.

Venn's research passion involves goose-necked barnacles that live in the tropical Pacific and the effects of ocean phenomena on their distribution. Over a 10-year period, she sent almost 50 people, mainly students, to the tropical Pacific to scrape barnacles off moored buoys, preserve them and send them back to her for identification and distribution analysis. The work resulted in a number of conference presentations, student research projects and a large collection of largest gooseneck barnacles.

Venn is involved in a different line of research during her aqueous geochemistry classes. Students conduct water sampling and analysis in a number of environments, including the Susquehanna River, and present their research at the end of the course and at the regional meeting of the Northeastern Geological Society of America (GSA). Since 2009, Venn and Christopher Hallen, professor of chemistry, have been active in the Susquehanna River Heartland Coalition for Environmental Studies and have obtained grants to support summer undergraduate research in chemical studies of the Susquehanna River and its tributaries, which is presented at the spring GSA meeting.

Venn teaches courses in oceanography, environmental geology, natural disasters, aqueous geochemistry and wetlands ecology, and field courses in geology. She is active with the Marine Science Consortium, a group of PASSHE schools that support and teach summer courses at the Marine Science Center field station, Wallops Island, Va. Supported by a PASSHE research grant in 2009, she started a third line of research mapping salt marsh environments in the Wallops Island area, both manually and using satellite imagery. This work provides an opportunity for course-embedded research in her classes and colleagues' classes in marine ecology, remote sensing and geographic information systems (GIS).
Angela Hess is an associate professor of biological and allied health sciences. Since arriving at Bloomsburg University in fall 2007, she has been involved in teaching and advising students pursuing careers in allied health fields. In addition to teaching courses such as anatomy and physiology, medical terminology, animal cell physiology, and Introduction to Nutrition, she is engaged in research projects with undergraduate and graduate students.

As a cancer biologist, Hess is interested in unraveling the molecular mechanisms that promote melanoma development and progression. Over the last five years, she has mentored several student research projects, many of which have been presented at local meetings of the Pennsylvania Academy of Sciences and the Commonwealth of Pennsylvania University Biologists, as well as national meetings like the American Society for Cell Biology.

Hess has received funding through the Melanoma Research Foundation, Pennsylvania State System of Higher Education (PASSHE) Faculty Development Committee, and several Bloomsburg University and BU Foundation support grants. Currently, Hess is collaborating with Naz Afarin Fallahain, assistant professor of physics and engineering technology, on a project that investigates molecular changes in skin cells after exposure to low doses of ionizing radiation. This successful interdepartmental collaborative project will continue with support from a recent Margin of Excellence grant from the BU Foundation.

In addition to her research activities, Hess runs the Academic Biology Learning Environment (ABLE) in Columbia Hall. In place since fall 2008, ABLE is a collaborative project among department faculty members, including Cindy Surmacz, Jennifer Venditti, William Coleman, John Hranitz and Barry Nolt. The goal of ABLE is to strengthen the academic community in key introductory biology courses while enhancing students’ learning skills and improving their performance. ABLE provides students with biological models, study spaces and other resources.

William Calhoun, a professor of mathematics, computer science and statistics, gave the presentation “The legacy of Turing reducibility” at Computability in Europe, also called the Turing Centenary Conference, at Cambridge University, United Kingdom, in June.

The conference marked the 100th anniversary of the birth of Alan Turing, a founder of computability theory who played an important role in the development of the computer. Turing was involved in many areas including, statistics, logic, computer science, cryptology, mathematical biology and athletics and is credited with helping the Allies win World War II by devising techniques and machines that cracked the Enigma code and other German codes.

The conference included an excursion from Cambridge, where Turing was a student and, later, a fellow, to Bletchley Park, the center for British code breaking during WWII. Calhoun will use Turing’s diverse interests to motivate workshops for incoming freshmen in the BU Summer Enrichment Program in Science, Technology, Engineering and Mathematics.