

SciTech News

FAIRMONT STATE UNIVERSITY COLLEGE OF SCIENCE AND TECHNOLOGY

www.fairmontstate.edu/academics/CollegeofSciTech

Roads to Appalachia through Italy 2007: Italian Geoscience



Dr. Debra Hemler, Professor of Geoscience, visited picturesque Italy in April 2007 as part of the Roads to Appalachia trip. This picture, taken in Venice, is among many that Hemler will be able to use in the classroom.

Dr. Debra Hemler, Professor of Geoscience, presented Roads to Appalachia through Italy 2007: Italian Geoscience to the FSU community on April 26, 2007, as part of study preparations for those participating in a two-week trip to Italy. During her presentation, Hemler answered many questions about the geology of Italy and provided explanations on why Italy is shaped the way it is.

The visit to Italy took place June 11-25, 2007, and was hosted by Dr. Judy Byers, Abelina Suarez Professor of English and Folklore and Director of the West Virginia Folklife Center at FSU, and Noel Tenney, Assistant Professor of Folklore Studies and Cultural Specialist for the Folklife Center. The purpose of the Roads to Appalachia trip was to help participants better understand the unique similarities between Appalachia and Italia and to trace the immigration routes of Italians to the coal fields of West Virginia.

While in Italy, Hemler provided insight into the geology of the country for the ap-

proximately 43 FSU students, faculty, community members and GEAR UP teachers who participated in the adventure.

Hemler said she will be able to bring her experiences to her classroom, "The pictures of the Apennines, Vesuvius and Pompeii are priceless. I now have firsthand information on these sites as opposed to web pics and text book descriptions."

The public teachers also returned with content for their classrooms.

"The many teachers on the trip have to develop a unit on Italy to conduct with their public school students, so much of what we experience will be translated into the K-12 curriculum of these teachers," Hemler said.

The trip was sponsored by the West Virginia Folklife Center in collaboration with Fairmont State University. Student scholarships were funded by the Office of Student Affairs, and public school teachers received scholarships through the GEAR UP program.

Renovations, Construction Continue on New Technology Wing

Renovations and construction on the new technology wing of Wallman Hall will continue through the fall semester. The new wing will feature two large lecture rooms and laboratory facilities for engineering technology programs. Construction began in June 2006 on the \$15 million building; once finished, two floors, a new exterior and about 40,000 square feet will have been added to the existing building.

The new wing is projected to open for spring 2008 classes and will house: Computer Science, Computer Security, Information Systems, Mathematics and Math Education,

Civil Engineering Technology, Electronics Engineering Technology, Mechanical Engineering Technology, Occupational Safety, Technology Education, DOH Transportation Academy and the Pierpont C&TC programs Drafting/Design Engineering Technology and Graphics Technology

Architecture will be staying in the Turley Center, and all other College of Science and Technology programs will remain in their existing locations.



August 2007 photo of the new Engineering Technology Wing of Wallman Hall, as viewed from Locust Avenue.

College of Science and Technology Mission:

To promote effective student learning in science, math and technology and to prepare top-quality graduates for their future endeavors, including graduate study, employment and other professional or personal goals.

<http://www.fairmontstate.edu/academics/CollegeofSciTech>

College News

Welcome Message from the Dean

As of this writing, I have been the Dean of the College of Science and Technology for just over 3 months. I am honored to have this opportunity to serve as the Dean of the College and look forward to working with our outstanding faculty, students, staff and alumni. Last year the faculty of the College of Science and Technology developed a new strategic plan for the College. This strategic plan will shape our future, and in the months to come we expect to translate these words into opportunities for working toward common objectives.

As the Dean of the College, I enjoy learning about the accomplishments of our faculty, students, staff and alumni. You can read these stories in this newsletter or in maroon & white, a publication for the alumni and friends of Fairmont State University. Yet, there are so many more stories—a faculty member quoted in a newspaper or an alumna presenting a fascinating talk to first-year students. Collected in one place, these reveal a compelling story. This is why we have SciTech News. It provides an engaging view of the role of Fairmont State University educators, engineers, scientists and technologists at the forefront of education, science and technology policy. I invite you to read SciTech News regularly.

I also invite you to visit us on campus. A perfect opportunity to do so is coming soon—the opening and dedication ceremony of our new Engineering Technology Wing of Wallman Hall. Additional information on this ceremony will be provided in the future, and this is a chance to learn about some of Fairmont's most interesting news before it reaches the headlines. I hope you will be able to join us for this celebration and take an active role in helping to educate our students in the College of Science and Technology at Fairmont State University.

FSU to Host State Science, Engineering and Energy Fair in 2008

Next spring, Fairmont State University will be hosting the 2008 North Central West Virginia Science, Energy and Engineering Fair, as well as the West Virginia State Science, Energy and Engineering Fair.

The North Central West Virginia Science, Energy and Engineering fair will be held on February 29 and March 1, 2008. The West Virginia State Science, Energy and Engineering Fair will be held on March 29, 2008. Be sure to mark your calendars.

The regional fair is open to all West Virginia students in grades six-12. All projects should include laboratory, field or theoretical research. Projects can be individual or team and can be entered in one of two divisions: Junior (grades six – nine) or Senior (grades 10-12). For information and updates on the fairs, please visit <http://www.fairmontstate.edu/academics/ScienceFair> or contact the science fair coordinator at scitech@fairmontstate.edu or (304) 367-4246.

The 2007 North Central West Virginia Science, Energy and Engineering Fair, was held



Students, grades six-12, prepare their exhibits and wait for judging at the 2007 North Central West Virginia Science, Energy and Engineering Fair at FSU.

March 23-24, 2007, on the FSU campus. There were 113 registered participants from three counties.

The judges looked for creative ability, scientific thought, dramatic value, personal involvement and projects that promote engineering goals, thoroughness, skill and clarity. Results from the 2007 fair can be found at: www.fairmontstate.edu/academics/ScienceFair/2007Winners.asp.

Learning Community, Seminar Bring First-Year Students Together

The College of Science and Technology will be offering a one credit seminar course for incoming first-year students this fall. The course is designed to prepare students for the rigors of college coursework, ease the transition into college life at FSU, explore potential careers and offer opportunities to establish relationships with peers in the College of Science and Technology.

The first-year seminar is paired with a residential learning community in Bryant Place. The learning community is an educational program that promotes engaged learning among students with similar academic goals. The 19 SciTech freshmen housed in Bryant Place will have opportunities to share more interconnected and expanded learning experiences with other students and faculty through activities and study groups beyond the classroom.

Additionally, students in the seminar will participate in the Mentor Link program, connecting incoming students in mentoring relationships with successful upper class SciTech students and alumni. The goal of the program is to offer positive college experiences, guidance and insight through supportive relationships. Mentor Link is open to all SciTech students and alumni.

The Bryant Place learning community and Mentor Link program are supported by the Title III Grant, Strengthening Institutional Programs.

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Milestones in 2007

- Dr. Susan Goodwin, Professor of Mathematics, was elected Vice President for College/University for the West Virginia Council of Teachers of Mathematics. She will represent college-level math teachers statewide on the WVCTM executive committee for the next two years. She also won a 32-unit TI Navigator system at the T³ Regional Conference in Flatwoods, WV, on March 17-18, 2007. The system allows her to do synchronous questioning and capture and display the calculator screens from all students in the classroom.
- Larry Allen, Assistant Professor of Electronic engineering technology, passed his Professional Engineer (PE) exam and is now a registered engineer.
- William Finley, Director of Institutional Research, is joining the College of Science and Technology as an adjunct professor of math to teach Applied Calculus I.



Dr. Debra Hemler, Professor of Geoscience and Nancy McClure, Director of the Center for Teaching Excellence, at the Annual Academic Award Celebration.

- Dr. Debra Hemler, Professor of Geoscience, was honored as a finalist for the Abelina Suarez Professorship.
- Dr. Matt Scanlon, Professor of Chemistry, played Avram in the FSU Town & Gown Summer Theatre production of "Fiddler on the Roof."
- Dr. Jess Cunnick, Temporary Assistant Professor of Biology, married Young Jin Cho on July 7, 2007. Cunnick also received a \$50,000 award from IDeA Network of Biomedical Research Excellence (INBRE)

that will be used to develop a research project in collaboration with Dr. Daniel Flynn of WVU on the mechanisms of cancer cell migration and invasion.

- Melissa Abbott, Assistant Professor of Occupational Safety, is currently working on her Ph.D. in Occupational Health and Safety. Her research involves the study of risk factors associated with law enforcement highway fatalities. She plans to complete her doctoral work by December 2007
- Dr. Joe Riesen, Professor of Mathematics, married Lee Ann McClung on June 1, 2007.
- Dr. Andreas Baur, Associate Professor of Chemistry, was awarded a sabbatical leave for fall of 2007. Baur will continue his research collaboration with Dr. Mark Flood and Dr. Sarah Dodson on the effects of homocysteine on different cell cultures and on the development of an assessment data collection and analysis plan for the chemistry program. Baur was also awarded a \$12,285 WV-INBRE Carryover Research Equipment Grant in March 2007. The grant was used to purchase a rotary evaporator and membrane pumps to support biomedical research.
- Dr. Mahmood Hossain, Assistant Professor of Computer Science, received a fellowship to attend a bioinformatics training workshop sponsored by the Virginia Bioinformatics Institute at Virginia Tech in August 2007.
- The College of Science and Technology welcomes Jason Bolyard, Temporary Assistant Professor of Civil Engineering Technology. Bolyard will be teaching civil engineering courses while Gary Zickefoose, Associate Professor of Technology, is on military deployment.
- Dr. Tom Repine retired from the position of Temporary Assistant Professor of Geoscience. Repine will continue to work as the Science Education Director for the WV Geologic and Economic Survey until October 2007. At that time, he will begin phased retirement for the next two years.
- Dr. Mark Flood, Professor of Biology, and Bonnie Freeman, Temporary Research Assistant, attended a week long workshop receiving hands-on training in gene silencing techniques at the National Institutes of Health campus in Washington, DC.
- Dr. Steven Hardy, Assistant Professor of Anatomy and Physiology, and his family welcomed a daughter, Kya Elizabeth, on May 24, 2007.

Stay Connected!

Our College web page, www.fairmont-state.edu/academics/CollegeofSciTech, continues to grow with new features and updated information to meet the needs of our expanding SciTech community of current students, alumni, associates and friends.

The SciTech Directory links to current contact information for faculty, staff, emeritus faculty and adjunct faculty to help you meet more of those who shape our College.

A special SciTech Students section contains pertinent information to help with procedures and navigating campus life, a list of College scholarships and awards and an area celebrating our student organizations.

If you are a graduate of FSU and the College of Science and Technology, we invite you to visit the SciTech Alumni page. Stay up-to-date and remain in touch with the alumni forum, share your successes in an alumni spotlight and offer your expertise and guidance through the Mentor Link program.

Visit our SciTech Outreach and Calendar link for information on programs for school aged children, lectures for the public, and continuing education courses for current teachers.

If you are an emeritus faculty member, alumnus, friend or member of our FSU College of Science and Technology community and have something to share on our web page, please contact our College Assistant at scitech@fairmontstate.edu or (304) 367-4246.

Presentations

Dr. Steven Roof, Professor of Biology; Dr. Erica Harvey, Professor of Chemistry; and Dr. Roxann Humbert, Director of Learning Technologies, made a poster presentation titled *Use of WebCT/Vista for Academic Administration* at the Campus Technology conference in Washington, DC, on July 31, 2007.

Dr. Florin Bocaneala made a poster presentation titled *Developing a Hybrid Online Physics Teacher Certification Program* at the Physics Teacher Education Coalition conference in Denver, CO, on March 3-4, 2007.

Additional information on faculty, staff and student presentations can be found on our web site at <http://www.fairmontstate.edu/academics/CollegeofSciTech/Research.asp>.

New Liberal Studies Science Courses Take Advantage of Research

New science course options abound, thanks to several years' worth of curriculum development by College of Science and Technology faculty. In addition to traditional introductory courses in single disciplines like biology, chemistry, physics, astronomy and geology, students now have available a number of more interdisciplinary course offerings.

Newly official SCIE courses in the Fairmont State catalog include:

SCIE 1000 Human Biology

SCIE 1020 Introduction to Meteorology

SCIE 1010 Earth and Sky

SCIE 1210 Geologic Heritage in the Field

SCIE 1220 Science in the Heart of Appalachia

These courses join SCIE 1103, Science That Matters I and SCIE 1100, Chemistry of Life as permanent additions to the curriculum.

The new courses are designed to take advantage of research about how people most

effectively learn science. Recent research suggests that through the process of connecting students to the learning process, societal concerns and opportunities, a student's capacity to learn will increase.

Additional research on the science of learning:

Science Education for New Civic Engagement (SENCER), <http://www.sencenr.net>

Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses, by L. Dee Fink, 2003, John Wiley and Sons.

We're Born to Learn: Using the Brain's Natural Learning Process to Create Today's Curriculum, by Rita Smilkstein, 2003, Corwin Press, Inc., Thousand Oaks, CA.

How People Learn: Brain, Mind, Experience, and School, by Committee on Developments in the Science of Learning with additional material from the Committee on Learning Research and Educational Practice, National Research Council, 2000, National Academy Press, Washington, DC.

College Program and Course Outcomes

Faculty throughout the College worked during the past academic year to define outcomes for their introductory courses and their degree programs. Both the College and institutional strategic plans call for the development of such outcomes to help support student learning and professional development, as well as programmatic assessment efforts.

Program outcomes (also known as goals or objectives in some circles) tend to be broad statements that describe what a graduate of the program is expected to know and be able to do. Not surprisingly, each program expects its graduates to exhibit discipline-specific competencies and skills. In addition, most programs expect graduates to demonstrate competency with overarching abilities such as communication, problem-solving, lifelong learning, teamwork and professional ethics.

Course outcomes provide students, faculty, accrediting bodies and other stakeholders with specific information about learning expectations for students in individual courses. A continuous programmatic improvement cycle can be generated by defining outcomes, assessing the success of students in reaching those outcomes and adjusting course and program activities to address the results of the assessments. The cycle is then repeated.

More complete information about programmatic and course outcomes is linked from the SciTech strategic plan at http://www.fairmontstate.edu/academics/CollegeofSciTech/5yr_StrategicPlan.asp. The College strategic plan complements Fairmont State's institutional strategic plan, which is available at <http://www.fairmontstate.edu/StrategicPlanning>.

Technology Upgrades in Hunt Haught Hall

Major technology upgrades in Hunt Haught Hall reflect the changing nature of the learning environment. Computers and data projectors have been added to virtually every classroom so that internet access, PowerPoint, Excel and discipline-specific software applications are a click away at any time. With the wide availability of miniature external hard drives, loading student and faculty presentations during class is straightforward.

Forty-two laptop computers and seven multimedia carts further incorporate technology into the classroom. The student laptops are used in activities-based science courses and in selected math classes. The new multimedia carts are equipped with a DVD player and a laptop computer, making it easier and more convenient to make classroom presentations.

The building received network improvements in the spring of 2006 and went wireless the following fall.

SciTech Picnic Wraps Up the Semester



Jim Weekly, Instructor of Chemistry, tends to the BBQ at the second annual spring College of Science and Technology picnic.

Several students, faculty and staff once again braved pouring rain for the second annual spring College of Science and Technology picnic on April 26, 2007. The event was made possible by donations from student organizations and faculty. There was a variety of food: burgers, veggie burgers for the vegetarians, hot dogs, pasta salads, chips, pop and dessert to round-out the menu. Despite the rain, it was a good end to a busy semester.



New Faces

■ MARTINA BACHLECHNER



Martina Bachlechner

Martina Bachlechner, Temporary Assistant Professor of Physics, received her high school teaching certification from the University of Linz in Austria and studied quantum-mechanical many-body systems for her M.S. and Ph.D. degrees, also from the University of Linz.

Bachlechner was awarded a Schrödinger Fellowship and completed her post-doctoral work at Louisiana State University studying the mechanical properties of semi-conducting end ceramic materials. She taught at West Virginia University and continued her research in computational materials physics.

Bachlechner looks forward to sharing her excitement for physics as she challenges students to think of physics outside the classroom by relating it to their interests and areas of study. With her background in high school math and science education, she is also eager to lend her expertise to the Online Physics Teaching Specialization program at FSU.

■ FLORIN BOCANEALA

Florin Bocaneala, Online Program Coordinator for the Online Physics Teaching Specialization program, left Olympia, WA, to join FSU in February 2007.

Bocaneala earned his B.S. in Physics from the University of Bucharest and his Ph.D. in Physics from the Ohio State University.

■ JEAN DUVERT



Jean Duvert

FSU.

Duvert graduated summa cum laude with a B.S. in Business Administration Information Systems and will have his M.B.A.

Jean Duvert, Temporary College Assistant for the College of Science and Technology, completed high school and law school in Haiti before moving to Fairmont to attend

conferred in May 2008. He received the International Student Academic Excellence Award in 2003, the Outstanding Senior in Business Award in 2004 and the Graduate Assistantship Award in 2006.

Duvert has been serving as a database and software developer and business consultant for the College of Science and Technology.

■ ANTHONY GILBERTI



Anthony Gilberti

In July 2007, the College of Science and Technology welcomed a new Dean, Anthony F. Gilberti, to the FSU community. Gilberti obtained his B.S. from Fitchburg State College in Industrial Arts

Education, his M.S. from Eastern Illinois University in Technology Education and his Ph.D. from University of Maryland in Industrial Arts Education and Industrial Training and Development.

Gilberti comes to FSU from Indiana State University where he has been a professor and chairperson for the Department of Industrial Technology Education for the past 11 years. Previous to his time at Indiana State University, Gilberti taught at St. Cloud State University in the Department of Industrial Studies for 10 years.

Gilberti comes highly recommended with experience in management, advising, evaluation and development. He also has experience in distance learning; graduate education; Science, Technology, Engineering, Mathematics (STEM) education and over \$1 million dollars in externally and internally funded grants.

He has been recognized with numerous awards including the Technology Teacher Educator of the Year Award and Outstanding Educator from St. Cloud State University. He has served as the President of the International Technology Education Association, President of Phi Kappa Phi and as Senior Trustee of the Mu chapter of Epsilon Pi Tau.

■ HEATHER SHUTE

Heather Shute, the new College Assistant for Student Support, Recruiting and Outreach, joined FSU in June 2007. She comes to West Virginia from Washington State where she spent three years focusing on the development of grant funded programs and



Heather Shute

Seattle, WA.

Shute earned her B.A. in Communications from Pacific Lutheran University in Tacoma, WA, studying print and broadcast journalism.

She looks forward to learning the nuances of an academic environment and navigating the unique demands and challenges of the field.

Adjunct Corner

■ MADELINE SAMPSON



Madeline Sampson

Madeline Sampson, Adjunct Professor of Chemistry, earned a B.S. in chemistry from the State University of New York at Oneonta, an M.S. in chemistry from the University of Kentucky at Lexington and a Ph.D. in chemistry from Rice University in Houston.

Sampson's doctoral research involved the determination of thermodynamic quantities using high temperature mass spectrometry. She worked several years in industry between completion of her bachelor's degree and beginning graduate school.

Subsequent to finishing her doctoral degree, and after having children, she substitute taught in K-12 while living in the Huntington, WV, area. She home schooled her children for one year after moving to Fairmont. She has enjoyed watching her own son's eyes opened to the field of chemistry and looks forward to helping her students realize the relevance of chemistry.

civic engagement in Community Youth Services' AmeriCorps programs. Before that, she served as a reporter, editor and producer at 710 KIRO News Radio and 88.5 KPLU/NPR in

DEPARTMENT OF BIOLOGY, CHEMISTRY AND GEOSCIENCE

Developing Inquiry Science in a Developing Country: GLOBE Training for Nigerian Teachers



Dr. Debra Hemler, Professor of Geoscience, during a March 2007 trip to Oson State, Nigeria to train teachers to develop inquiry based science programs for elementary and high school students.

Dr. Debra Hemler, Professor of Geoscience, presented *Developing Inquiry Science in a Developing Country: GLOBE Training for Nigerian Teachers* on March 9, 2007. In her recent travel to Nigeria, Hemler worked with three Global Learning and Observations to Benefit the Environment (GLOBE) colleagues to train teachers to develop inquiry based science programs for elementary and high school students. In her presentation, she shared her experiences with the people, culture and challenges of presenting an educational program in a developing country.

The GLOBE team consisted of Hemler; Todd Ensign, Temporary Assistant Professor of Geoscience; Tiffany Litton, Lewis County high school science teacher; and Tom Berlin, Assistant Professor of Environmental Science at Alderson Broaddus College. The team sent materials for 25 Oson State schools to collect data in hydrology, atmosphere, soil and land cover investigations. Additionally, GPS units were provided and teachers were trained on how to use the instruments for data collection.

The GLOBE team faced the challenge of getting the equipment to Nigeria because it arrived the day before they left. Despite the delay, the local government ensured the team that the equipment would be tagged, logged and disseminated to the local schools.

A portion of the GLOBE program involves the recording of data on the web for world wide access. With the lack of internet capabilities in the schools, local teachers had to be creative. "Teachers tell us they will record class data at Internet cafes," Hemler said. Mobile phones are also playing a role.

"Since many of the residents have cell phones, we are working toward downloading data via this technology," she said.

Hemler said the Nigerian teachers were wonderful to work with and are eager to implement GLOBE protocols with their students.

The GLOBE team has been invited back to Nigeria to deliver a workshop in Ondo State and may be returning as early as January 2008.

The Nigerian government in Oson State funded the GLOBE visit. GLOBE is an international initiative that allows students in 109 countries and at all grade levels to engage in authentic scientific research.

Students Solve Crimes, Gain Insight into the Forensic Science Field

Approximately 30 seventh- and eighth-grade students participated in FSU's Crime Scene Investigation (CSI) camp this summer.

The 30 students received hands-on experience in forensic science and with the research techniques frequently used in the field. During the camp, participants worked in teams to solve crime scenes and enjoyed the opportunity to try their hand at fiber, powder, hair, blood spatter, bullet hole, fingerprint and footprint analysis. Additionally, students worked with face identification software.

Faculty and staff members making the CSI camp possible included Dr. Mark Flood, Professor of Biology; Bonnie Freeman, Temporary Research Assistant; Dr. Jess Cunnick, Temporary Assistant Professor of Biology; and Dr. Dean Van Bibber, Associate Professor of Criminal Justice.

Approximately six undergraduate students, with a majority of them biology and/or biology education majors, were involved in the camp as instructors.

CSI is an annual, week-long event funded through a GEAR UP grant.

Chemistry Faculty and Students Present at National ACS Meeting

Chemistry students Holly Debolt, Jordan Moran, Adrienne Riggi and Greg Donohoe and Dr. Erica Harvey and Dr. Andreas Baur, both faculty members in chemistry, attended and presented at the national American Chemical Society (ACS) meeting in Boston August 19-23, 2007.

Funding was provided by College faculty development funds, a NASA grant to the College of Science and Technology for the Summer Undergraduate Research Experiences (SURE) program, and student grants from local and national ACS sections.

The following presentations were made at the Boston meeting:

Simultaneous assessment of students and courses through outcome mastery data

Holly Debolt and Dr. Erica Harvey and Dr. Andreas Baur

Electronic quizzes for quantum chemistry

Dr. Erica Harvey and Dr. Theresa Julia Zielinski, Professor of Chemistry at Monmouth University

Fairmont State University chemistry in the community

Stephanie Boblett, Jordan Moran, Megan Damm, Jennifer Charlile and Dr. Matthew Scanlon, Professor of Chemistry, and Dr. Andreas Baur

Determination of homocysteine levels in the endothelial and stromal cell cultures of HPLC

Adrienne Riggi; Gregory Donahoe; Zachary Brewer; Bonnie Freeman, Temporary Research Assistant; Dr. Mark Flood, Professor of Biology; Dr. Sarah Dodson, Assistant Professor of Biology; and Dr. Andreas Baur

Hemler Honored at 30th Annual Academic Awards Celebration

Dr. Debra Hemler, Professor of Geoscience, was this year's recipient of The Harold & Roselyn Williamson Straight Award. The award is intended to honor or to encourage outstanding, innovative or otherwise distinctive teaching or scholarship at Fairmont State by faculty in either two-year or four-year programs.

Research Recognized in the NCRR Reporter

Fairmont State University's College of Science and Technology faculty and students were featured in the spring 2007 edition of the NCRR Reporter, produced by the National Institutes of Health and National Center for Research Resources (NCRR).

In an article titled *Critical Connections, collaboration among disparate research institutions enhance biomedical research and the nation's health*, FSU's contributions to the efforts of identifying genetic origins of heart disease were highlighted.

Dr. Mark Flood, Professor of Biology, directs the study—a process of reviewing DNA samples for variations in genes involved in two common conditions leading to heart disease: familial combined hyperlipidemia and familial hypertriglyceridemia.

Also assisting in the familial combined hyperlipidemia study are Dr. Sarah Dodson, Assistant Professor of Biology, and approximately 10 undergraduate students.

The research is funded through NCRR's Institutional Development Award (IDeA) program which also supported the purchase of specialized equipment—a pyrosequencer and several polymerase chain reaction (PCR) machines.

Not only is Fairmont State University contributing to an important research project, but undergraduate students at FSU are gaining invaluable hands-on experience in the lab learning to do PCR and DNA sequencing and witnessing how their research is of importance to the health of their communities.

To view the full article, please visit http://www.ncrr.nih.gov/publications/ncrr_reporter/spring2007/index.asp.

WV Ginseng Growers Association Spring Conference

The West Virginia Ginseng Growers Association (WVGGA) held its annual spring meeting at Fairmont State University on February 24, 2007.

The WVGGA offered opportunities for both the novice and expert grower, including an introduction to grower practices, the new ginseng grower's certification program, discussion on marketing and international trade and question and answer time with a panel of experienced growers.

The meeting was sponsored by the Center for Sustainable Resources, the FSU student group STAND (Students Taking Action in Nature's Defense) and Dr. Don Trisel's BIO 2202 General Botany class at FSU.

Huggins Presents Presidential Lecture

As part of the FSU Presidential Lecture Series, Dr. Pamela Davey Huggins, Assistant Professor of Biology, presented "The Intelligent Design Debate." The 18th annual lecture took place on April 16, 2007, in the Ruth Ann Musick Library.

The Presidential Lecture Series was established in 1989 to provide faculty the opportunity to share their work with colleagues and members of the community. The lecture was followed by an open question-and-answer session.

Ever since Charles Darwin described the mechanism of natural selection in "The Origin of the Species" in 1859, the topic of evolution has been hotly debated in the public arena. In the 1990s, the debate intensified with the introduction of the concept of intelligent design. Widespread misunderstanding about evolution, creationism and intelligent design still exists. The lecture addressed both the definitions and miscomprehensions of these three concepts, traced the history of each and discussed current controversies associated with evolution and public education.

Technology Faculty Prepared for Upcoming ABET Visits

Preparations for the November ABET visit have come to a completion, with the technology team meeting the July 1, 2007 deadline for submission of all required documents. Since last fall, technology faculty have been working diligently to prepare study reports and accreditation documents for the upcoming visits.

The following programs will be reviewed during the November 11-13, 2007 visit: Civil Engineering Technology, Electronic Engineering Technology, Mechanical Engineering Technology, Occupational Safety, Drafting/Design Engineering Technology and Information Systems.

ABET, Inc., the recognized accreditor for college and university programs in applied science, computing, engineering and technology, is a federation of 28 professional and technical societies representing these fields. ABET currently accredits some 2,700 programs at more than 550 colleges and universities nationwide.

Architecture Students, Professor Honored



The West Union Bank at NewPointe, designed by Philip M. Freeman, Assistant Professor of Architecture, received a Merit Award for outstanding achievement in architecture.

The West Virginia Chapter of the American Institute of Architects announced the recipients of the 2006 AIAWV design awards for excellence in architecture at its annual gala in Charleston on April 14, 2007.

Philip M. Freeman, AIA, Assistant Professor of Architecture at FSU, was the design architect for two projects receiving Merit Awards for outstanding achievement in architecture given to the firm of WYK Associates, Inc. The architectural design of the West Union Bank at NewPointe and the IMC Operations Center in Webster County were recognized for their approach to design and sustainable principles.

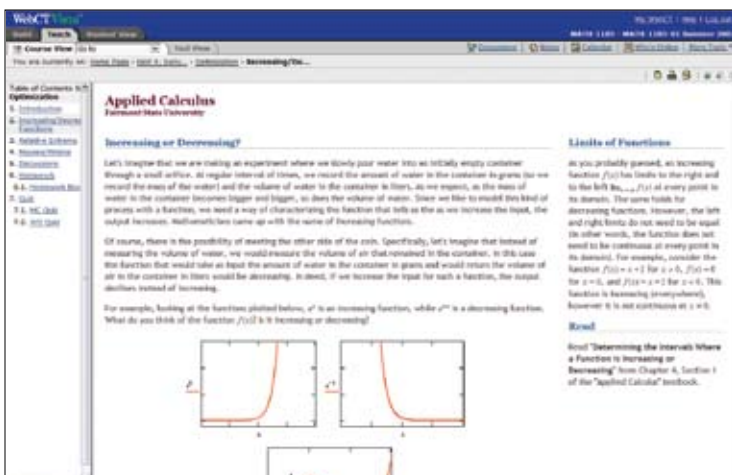
Jury Chair, Kathryn Prigmore, FAIA, a renowned educator and practitioner from Washington, D.C., lauded the buildings for their conceptual expression and their consideration of scale, detailing and sustainable principles.

Three FSU architecture students were recognized for their design achievements: Orin Kincade and Meghann Gregory were recipients of the Jeffery Mayfield Award. This award for excellence in student design is given annually in honor of former Fairmont State professor Jeffrey Mayfield to an FSU senior in the architecture program. Shawn Flemming, a junior, was given the West Virginia Society of Architects Scholarship for achievement in student design. This honor is given to the winner of a design competition held between the students in the architecture program at FSU and the students in the architectural engineering technology program at Bluefield State College.

DEPARTMENT OF COMPUTER SCIENCE, MATH AND PHYSICS

Applied Calculus Course Delivered Online

Statewide Collaboration and Online Programming Focuses on West Virginia's Need for Physics Teachers



A screenshot from MATH 1185, Applied Calculus I, offered entirely online over the summer 2007 semester. The online course provided non-traditional students the opportunity to access instruction at anytime from a computer with internet connection.

This summer, Fairmont State University offered MATH 1185 Applied Calculus I as part of its new Online Physics Teaching Specialization program.

Although not part of the certification program, calculus is a pre-requisite needed for the program.

“Many in-service teachers do not meet the calculus requirement, so offering this course online provides opportunity for non-traditional students to meet the pre-requisites for the program,” said Florin Bocaneala, program coordinator.

Not only did this summer course offer an opportunity for in-service teachers to satisfy the calculus requirement, but it also provided valuable insight for the program creators and course writers.

“Through the creation and delivery of this course, we were able to pin down technical and pedagogical difficulties incumbent to teaching higher math online,” Bocaneala said. “This taught us how to structure a course in order for students to effectively study math and science online.”

The knowledge gained from this initial course will be applied to future classes, including, Advanced Physics I being offered this fall.

A statewide collaboration of multiple institutions and agencies came together on February 23, 2007, for a two-day conference at FSU to discuss the creation of an online physics teaching specialization program.

The goal of the pilot program is to address West Virginia's need for qualified high school physics teachers.

“The meeting allowed for a group of individuals to pool their resources and expertise with the end goal of identifying ways an online physics teaching certification program could meet the needs of the state,” said Program Coordinator Florin Bocaneala.

During the conference, the group of educators and experts organized their support for the program and determined their involvement in its delivery. Institutions and agencies contributing to the conference included FSU, West Liberty State College, Davis & Elkins College, West Virginia Wesleyan College, Green Bank National Radio Astronomy Observatory and Glenville State College.

As a result of the efforts of this collaboration and the guidance of Bocaneala, FSU's new Online Physics Teaching Specialization Program will make its proper debut this fall with the offering of Advanced Physics I.

The online format meets the needs of in-service teachers and working professionals who need a physics teaching certification by creating courses that are unbound by time and location. The online courses allow for accessibility to instruction at anytime from a computer with a connection to the internet, thus minimizing the barriers that non-traditional students sometimes face.

The Advanced Physics I course is a review of selected topics from algebra-based introductory physics using higher level mathematics tools. Laboratory activities for the Advanced Physics course will also be conducted online through the use of virtual environments—commonly used for online

computer games, but that are now being utilized as teaching tools. Students may also be instructed to create at-home laboratories with supplies that one can find sitting around the average house.

Course contributors include Dr. Martina Bachlechner, Temporary Assistant Professor of Physics; Christopher Lambert, Learning Technologies Specialist; Dr. Galen Hansen, Professor of Physics; Dr. Carl Rotter of West Virginia University; Dr. Bruce Sherwood of North Carolina State University; Dr. Ruth Chabay of North Carolina State University; Dr. Joe Wiest of West Virginia Wesleyan College; Dr. G.A. Popson of West Virginia Wesleyan College; and Dr. Rasil Warnakulasooriya of MIT/Addison Wesley Publishing Company.

The six course program is funded through a NASA grant.

If you are interested in the Online Physics Teaching Specialization Program, please contact Dr. Debra Hemler at dhemler@fairmontstate.edu or (304) 367-4393.

If you are interested in the Online Physics Teaching Specialization collaboration, please contact the program coordinator, Dr. Florin Bocaneala, at fbocaneala@fairmontstate.edu or (304) 367-4914.

SciTech Faculty Receive ExPEDITe Fellowship for Summer Work

Two faculty members from the College of Science and Technology were awarded an Expanding Pathways for Educational Development and Information Technology Experiences (ExPEDITe) fellowship for summer work.

Galen Hansen, Professor of Physics spent the summer with the Scientific Research Group (SRG) of the West Virginia High Technology Foundation (WVHTF) in the area of computational fluid dynamics and space physics, and Mahmood Hossain, Assistant Professor of Computer Science worked with Innovative Management and Technology Services (IMTS).

Student Accomplishments

A Celebration of Student Scholarship



Students and faculty were honored at the first annual Celebration of Student Scholarship; an event used to showcase the research of FSU students and recognize the guidance of faculty mentors.

The first annual Celebration of Student Scholarship, held on April 18, 2007, showcased the creative work and exceptional research of FSU students and recognized the guidance of faculty mentors who helped students achieve their academic goals.

The following SciTech scholars participated in the event:

Robert Ball, *The Classification of Steganography Applications*

John Richards and Robert Ball, *Creation*

FSU Students Present Undergraduate Research at State Capitol

Two Science and Technology students were among the 10 FSU students who presented their research findings as part of the third annual Undergraduate Research Day at the Capitol on February 8, 2007. The event's purpose is to familiarize state legislators with research activities involving undergraduate students on campuses across the state and the educational impact of those activities.

Computer Science/Information Technology student Robert Ball, with advising from Don Tobin, Assistant Professor of Computer Science, presented "Classification of Steganography Applications." Steganography is the science of hiding electronic data files inside other electronic data files, often used in conjunction with encryption to hide

of a Java Applet for Illustrating Thermodynamic Efficiency

Ian Wilhelm, *Determining the Effect of Benzopyrene on Frog Embryonic Survival and Development*

Ashley Hotsinpiller, *Determining the Effect of Dihydrofolate Reductase (DHFR) Gene Mutations on Plasma Homocysteine Levels*

Stephanie Boblett, *Effect of in vitro Homocysteine Exposure to Adherent Stromal Cells*

Adrienne Riggi, *Investigating the Biochemical Effects of Homocysteine on Stromal and Endothelial Cells*

Ashley Hudimac and Matt Menas, *Comparison of Mite Control Methods in *Apis mellifera* (honey bees) Colonies*

Sam Tenney, *Java Applet for Spectrum Generation*

Matt Hiener, *Determining the Effect of Cystathionase (CTH) Gene Mutations on Plasma Homocysteine Levels*

The following SciTech faculty mentors nominated student work or chaired event sessions: Dr. Andreas Baur, Dr. Sarah Dodson, Dr. Mark Flood, Dr. Erica Harvey, Dr. Pam Huggins, Don Tobin and Dr. Don Trisel.

The event was sponsored by the Office of Research and Graduate Studies, the undergraduate Research Program, the Honors Program and the Office of Academic Affairs.

and protect the data. Many of these applications leave behind digital "fingerprints" in a system's registry or hard disk. Ball's research is aimed at creating a taxonomy of these applications by using a classification tree, an artificial intelligence technique useful in identifying clusters of similarity.

Biology student Chris Sedlacek, with advising from Dr. Albert Magro, Senior Professor of Biology, presented "The Effect of Chemotherapeutic Cell Death on Cell Surface Proteins." His investigation has obtained data about the proteins on the surface of brain tumor cells when treated in vitro chemotherapeutically. In addition, it was determined how the density of these proteins on the surface of cells changed as the cell was induced to go into cell death.

Summer Research on Campus

The largest cohort yet of SciTech students and faculty undertook research on campus during the summer of 2007. A new Summer Undergraduate Research Program (SURE) competitively awarded research fellowships to FSU student/faculty teams. SURE is designed to enhance learning opportunities for students while encouraging collaboration in learning and research between faculty and students.

SURE students earn a \$3,200 stipend for an eight-week research project, and have the opportunity to live on campus for free during the summer. Faculty mentors receive a modest summer stipend as part of the SURE Program and commit to working closely with student researchers for the duration of the award. SURE is funded through the Office of Research, with a parallel SciTech SURE program supported by NASA funding. In addition, some faculty members provide full or partial support for student researchers through their own research grants.

"Being part of a research project was so much different than simply being in class," said Adrienne Riggi, a double major in chemistry and biology. "I was instead contributing to something. It has made me appreciate and understand my field all the better."

Riggi worked with faculty mentor Dr. Andreas Baur, Associate Professor of Chemistry, on a SciTech SURE project titled "Investigation of extracellular homocysteine levels of human umbilical vein endothelial cells by high performance liquid chromatography (HPLC)."

Chemistry major Greg Donohoe also received SciTech SURE funding with Baur, on the closely related project "Investigation of intracellular homocysteine levels of human umbilical vein endothelial cells by high performance liquid chromatography (HPLC)." Donohoe's goals were "to refine my ability to critically analyze, collaborate and present data in a scientific manner, essential in formulating an answer."

Dr. Mark Flood, Professor of Biology, also supervised two SciTech SURE projects. Biology major Alyssa Childers worked with Flood on a project titled "Response of Endothelial Cells to Homocysteine with Smooth Muscle Cell Co-Culture." Amanda Reed,

continued on page 10

Summer Research on Campus *cont.*

also a biology major, worked with Flood on "Determining the Effect of Genotypes on Plasma Homocysteine Levels."

"This undergraduate research has given me the opportunity to gain experience in my field of study and also to better my ability to work with others as part of a team," Reed said. "It has also helped me to gain experience and better my lab techniques, which are important in my field."

Zach Brewer, an accounting major pursuing pre-medicine studies, worked with faculty mentor Dr. Sarah Dodson, Assistant Professor of Biology, on a project jointly funded by SciTech SURE and the Office of Research SURE program. The project was titled "Examining the effects of homocysteine on the ability of bone marrow stromal cells to support developing immune cells."

Brewer wrote in his application: "Since my interests lie towards pursuing an M.D. or M.D./Ph.D., this will be a great introduction to the level of scholarship and critical thinking needed for my future endeavors. I will be able to explore a relevant biological issue in today's society and contribute my findings as a member of the scientific community."

Todd Tichenor, a mathematics major, worked with faculty mentor Jeanne Harris, Professor of Mathematics, on a four-week SciTech SURE project titled "A Study of Additive Functions."

Harris said Tichenor specifically avoided searching the literature before delving into the project: "A mathematician works on a topic of interest to him, trying to discover relationships previously unknown to him... Thus each person can have the joy of creating something original to him."

Adam Hamrick and faculty mentor Dr. Jess Cunnick, Temporary Assistant Professor of Biology, also completed a SciTech SURE project titled "Role of invadopodia in glioma cell invasiveness." Hamrick and Cunnick studied gliomas, the most prevalent form of brain cancer, and the role of actin binding proteins and protein kinases in the development of invasive structures on the glioma cells. The study was completed at WVU in lab space provided by Dr. Steven Frisch and in collaboration with Dr. Dan Flynn.

Chris Sedlacek's summer research was funded by mentor and Senior Professor of Biology Albert Magro's IDEa Networks of

Biomedical Research Excellence (INBRE) grant. Sedlacek's topic was "Metalloproteinase Secretion from Apoptotic Cells within a Tumor Enhances the Invasiveness of the Non-Apoptotic Tumor Cells."

With support from Don Tobin, Assistant Professor of Computer Science, John Richards, Jeremy Snodgrass and Chad Holbrook are completing work on a Backbone Security research grant for steganography. Art and math education major Rachel Brown is carrying out research on graph theory and artistic representations of overlapping friend's networks of people on social networking web sites.

Presentation of the student's SURE research project at FSU's Celebration of Student Scholarship each April is a requirement of the receipt of the fellowship, and support is also provided for students to present at off-campus professional meetings. To learn more about research activities in the College, visit our SciTech Research web pages at:

<http://www.fairmontstate.edu/academics/CollegeofSciTech/Research.asp>

SciTech Students Honored for Academics

Many SciTech honored students were honored for their academic achievement at FSU's 30th annual Academic Awards Celebration on May 4, 2007.

Many of the awards presented at the event were made possible through gifts to the Fairmont State Foundation, Inc.

American Association of University Women Award - Amanda Barber, junior math major

Baccalaureate Achievement Award in Architecture - Stacey L. Bollinger, senior architecture major

Baccalaureate Achievement Award in Civil Engineering Technology - Ryan M. Canfield, senior civil engineering technology major

Baccalaureate Achievement Award in Electronics Engineering Technology - Meagan L. Bradfield, senior electrical engineering technology major

Baccalaureate Achievement Award in Graphics Technology - Tina M. Nichols, senior graphics technology major

Baccalaureate Achievement Award in Mechanical Engineering Technology

- Craig Poland Jr., senior mechanical engineering technology major

Baccalaureate Achievement Award in Safety Engineering Technology - Kaylan L. Chapman, senior safety engineering technology major

Baccalaureate Achievement Award in Technology Education - Mark J. Doty, senior technology education major

Bachelor of Science Academic Achievement Award in Aviation Technology - Gerod N. Green, sophomore aviation administration major

Coleman-Cobb-Postawa Award - Megan A. Damm, senior chemistry major

Consol, Inc. Scholarship - Kaylan L. Chapman, senior safety engineering technology major

Eleanor M. Ford Outstanding Junior Scholarship - Kristen Rausch, junior math, math education and computer science major

Eleanor M. Ford Outstanding Senior Award - Frank M. Muldoon, senior math and aviation technology major

Ernest W. Frye Outstanding Student

in Computer Science Award - Jonathan G. Brill, senior computer science major

James A LaRue Mathematics Award - Frank M. Muldoon, senior math and aviation technology major

Joyce H. Coleman Memorial Scholarship - Todd A. Tichenor, math education major

Outstanding Freshman in Chemistry Award - Michael Cunningham, chemistry major

Outstanding Senior in Information Systems Award - Jeffrey L. Jacobs

Robert L. Carroll Scholarship - Amber D. Ball, junior math major

Vincent and Catherine Sansalone Scholarship - Adrienne L. Riggi, sophomore chemistry and biology major

Walter F. Phillips, Jr. Scholarship - Timothy A. Huffman, occupational safety major

William C. Larew Sr. Award - Kristie N. Rhodes, forensic science major

William C. Ruoff Outstanding Senior Chemistry Award - Samuel A. Tenney, senior chemistry major

Internships Offer a Variety of Opportunities for Learning

Coursework became real for SciTech students this summer, thanks partly to NASA support for a new Undergraduate Internship Program (UIP) in the College of Science and Technology.

An architectural office in Morgantown was "home" for architecture major Joshua Frick for eight weeks this summer. Alan Leary and Zachary Campbell spent their summers working on sophisticated biomedical electronics equipment used in local hospitals. UIP support allowed forensic science major Kristie Rhodes to attend a professional short course on Forensic Death Investigation.

Frick and faculty facilitator Philip Freeman, Associate Professor of Architecture, worked with on-site supervisor Jason Miller, project manager/graphic designer and a Fairmont State alumnus, to design an internship at LAI, a Morgantown branch of Lakeside Architecture, Inc.

Frick articulated the heart of the internship process in his UIP application: "I will not only apply my schooling to the internship, the internship will affect my education by giving me real-world situations to which I may relate new concepts. As I try new things and relate what I have learned to my career, I will be able to determine where I wish my education to go from this point; if and how I wish to specialize my degree and where I might best receive further instruction."

Campbell and Leary, both electronics engineering technology majors, worked with faculty facilitator Gene Turchin, Associate Professor of Electronics Engineering technology, to design their SciTech UIP projects in the Clinical Engineering Department at United Hospital Center and Fairmont General Hospital, respectively. Campbell's on-site supervisors were Brian Cottrill, Director of Clinical Engineering, and Joe Robinson, also of Clinical Engineering at UHC. On-site supervision for Leary was provided by John Brolin, Manager of Clinical Engineering, and David Reedy, also of Clinical Engineering, at Fairmont General Hospital.

Turchin's primary goal for the internships is to provide his students with a real-world experience, under the supervision of technically qualified and experienced engineers and technicians.

For him, the biomedical electronics departments of hospitals provide unique internships "because of the complexity of the equipment and its critical operation in regard to human health and safety."

Leary, a non-traditional student who spent three years as a technical advisor to the Works and Physical Planning Department of a university in Southern Africa, additionally sees the internship as a foundation for future service projects.

"Along with applying the knowledge and experience gained through this internship towards a career that is of interest to me, I would be able, as a volunteer, to pass this knowledge and experience on to facilities in developing countries," Leary said.

Rhodes and faculty facilitator Mark Flood put together a UIP proposal to support a unique "spring break" opportunity in March 2007. Rhodes attended the Forensic Death Investigation course organized through the office of the Chief Medical Examiner, West Virginia Department of Health and Human Resources, held at Stonewall Jackson Resort. Rhodes' on-site supervisor was Dr. John Carson, Chief Dental Examiner for the state of West Virginia and an adjunct instructor in the forensic science program at Fairmont State.

Other students found internships without support from the UIP. All Occupational Safety majors complete internships before graduation. This summer, students interned at Allegheny Power, Novelis, Hensel Phelps, AFR, Consol, MSES, Zenith Corporation, Foen and Mylan Pharmaceuticals. Computer science major Tim Kelley interned with Dominion Transmission in Clarksburg as a Software Systems Engineer. Kelley has been working on applications that improve the efficiency of transmission pipelines for engineers. For chemistry major Lorah Wood, summer work at Mylan Pharmaceuticals provided a great way to test out her aptitude and interest in a chemical laboratory.

The purpose of the UIP is to enhance professional opportunities for students while encouraging learning and professional development through student interactions with working professionals. SciTech majors work in industrial, laboratory and business professional experiences, ideally during the summer between their junior and senior year. UIP Fellows receive a stipend of \$400 per week for up to eight weeks of full-time internship or professional work activity.

To read more about the UIP and internships undertaken by SciTech students, check our web site at

<http://www.fairmontstate.edu/academics/CollegeofSciTech/Internships.asp>

Alumni Spotlight



**JENNIFER
SHAFFER**

Degree: Bachelor of Science

Major: Safety/Environmental Engineering Technology

Hometown: Bridgeport, WV

Biography: During my academic career, I was a non-traditional student. I worked full-time with a family while attending full- and part-time as a student. Although it was challenging at times, I feel it gave me an advantage with my studies because I was better able to relate studies to real-world situations since I was already working in industry. After graduation my current employer (UCAR Carbon Company in Anmoore) promoted me to Transportation Coordinator in the shipping department. I supervise eight hourly employees and coordinate the delivery of approximately 400 shipments per month from our facility including some Hazmat shipments. Even though my current position is not in Safety, the position is directly related to Safety and is a good starting point for me. I hope to continue growing and learn-

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Alumni Spotlight Request

Alumni are critically important to the success of past, present and future FSU students. Share your experience in the College of Science and Technology with others by completing a SciTech Alumni Spotlight. Profile forms can be obtained at our web site, www.fairmontstate.edu/academics/collegeofscitech/scitechalumni or by contacting the SciTech alumni coordinator at scitech@fairmontstate.edu or (304) 367-4269.

To view current spotlights from the College of Science and Technology, visit www.fairmontstate.edu/academics/CollegeofSciTech/AlumniSpotlight.asp

Jennifer Shaffer *cont.*

ing by continuing my education and taking advantage of every opportunity that comes my way.

Learned: The most important thing I learned as a student at Fairmont State is that I don't know the answer to every question but I do know where to go to get the right answer. Networking with fellow students and teachers does not stop at graduation. We have to utilize all resources given to us.

Advice: My advice to current and/or prospective students would be to take advantage of every opportunity to learn and grow both personally and academically. Fairmont State offers many growth opportunities through plant tours and visits, guest speakers and internships. Organize your class materials throughout your academic career so they will be of greater assistance once you graduate and actually start using the information. Take advantage of class projects to test your knowledge and challenge yourself to do well. It will pay off in the end, both in your grades as well as what you will have to offer to potential employers once you graduate.



Outreach Calendar

(more detail on the web at www.fairmontstate.edu/academics/CollegeofSciTech)

The College of Science and Technology hosts or co-hosts many outreach events. All events are free and open to the public unless otherwise noted. Mark your dates for:

America/FS Counts math tutoring

Students in 5th – 8th grades who are experiencing math difficulties

Contact: For program information, dates and times, call (304) 367-4579

SEPTEMBER 20, 2007

Carroll Lectures

Randolph R. Croxton, President of Croxton Collaborative Architects P.C. will present on Green Architecture; Free

Contact: Visit our online calendar at <http://www.fairmontstate.edu/academics/CollegeofSciTech/Outreach.asp> for updated information, dates and times

OCTOBER 13, 2007

2007 Homecoming Alumni Awards Luncheon

All alumni invited; Falcon Center

Contact: "Alumni" link at www.fairmontstate.edu or toll free at (866) 372-2586; Advance tickets \$10 or \$15 at the door.

OCTOBER 26, 2007

SciTech Open House

High school students and teachers; Free

Contact: Heather Shute, (304) 367-4246 or hshute@fairmontstate.edu

Visit our online calendar at <http://www.fairmontstate.edu/academics/CollegeofSciTech/Outreach.asp> for updated information, dates and times

NOVEMBER 10, 2007

Campus Visitation Day

All prospective students and families are invited. Tours of Science and Technology facilities provided upon request.

Contact: "Visiting Fairmont State" link at www.fairmontstate.edu

DECEMBER 13, 2007

RESA Science Bowl

High School Science Bowl Teams and Coaches

Contact: Heather Shute, (304) 367-4246 or hshute@fairmontstate.edu

FEBRUARY 29 & MARCH 1, 2008

North Central West Virginia Regional Science, Energy and Engineering Fair

Students in grades six - 12

Contact: Heather Shute, (304) 367-4246 or hshute@fairmontstate.edu

Visit our science fair page at <http://www.fairmontstate.edu/academics/ScienceFair/default.asp> for updated information, dates and times

MARCH 29, 2008

West Virginia State Science, Energy and Engineering Fair

Contact: Heather Shute, (304) 367-4246 or hshute@fairmontstate.edu

Visit our science fair page at <http://www.fairmontstate.edu/academics/ScienceFair/default.asp> for updated information, dates and times

Science After School

K – 6 students

Contact: Deb Hemler at (304) 367-4393, dehemler@fairmontstate.edu

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