April’s Celebration of Student Research Conference has piqued the interest of everyone from freshmen to advanced graduate students, from professors to the council of trustees, as well as to the president of Shippensburg University. Conference co-coordinators Dr. Allen Dieterich-Ward, professor of history, and Dr. Curt Zaleski, professor of chemistry, said there has been a lot to be excited about regarding this year’s conference, which was held on April 20, 2010, in the CUB and was open to the public.

“There was a marvelous momentum that built up and acknowledged the importance of undergraduate research,” says Dr. Dieterich-Ward.

In the recent past, the conference was a series of poster presentations by undergraduates who received research grants or funding through the Institute for Public Service. In the distant past, it was a day-long extravaganza in which students were excused from classes. This year’s conference found a balance between the two.

All students from honors freshman to advanced graduate students were welcome to present their research. Students showcased their research through either poster or oral presentations. This provided an opportunity to highlight research projects that might or might not be well known on campus.

Following these presentations were panels organized by individual departments within the university. The panel sessions were the biggest difference between this year’s conference and last year’s.

“Students get to experience a culture of research,” Dr. Zaleski said about the importance of this event. “They gain the ability to explain what they’re working on because that can be difficult for them. It’s good practice for professional situations.”

This conference works toward broader university missions, such as expanding undergraduate research and helping students think of their college careers as the beginning of their professional careers, not as an extension of high school.

“We want students to start thinking as scholars, to become experts, and to gain confidence in themselves and their research,” said Dr. Dieterich-Ward.

Dr. Dieterich-Ward and Dr. Zaleski anticipated about 165 poster presentations and 13 panel discussions, giving an approximate total of 363 student participants. This was a great expansion and improvement compared to the 70 or so poster presentations last year.

The momentum for student research does not end here. This summer students have the opportunity to take part in faculty/student research.

For more information on the Celebration of Student Research Conference, please visit the website for Shippensburg University’s Institute for Public Service at www.ship.edu/student_research, or contact the Dean’s Office at 717-477-1151.

Here are some students and projects featured at the conference in April.

**Alex Reed, Senior Geo-Environmental Studies**

Alex Reed puts his hand on his chest. “I was often up to here in poop,” he says when describing his research project. And he means this literally. Reed is working with Dr. Thomas Feeney on a project entitled “Geologic and Hydraulic Characterization of Tayamentasachta Spring at Tayamentasachta Environmental Center.” As one of many parts of his project, Reed is creating a 3D model of the pond to show sediment distribution. In order to do this, he visually surveys the pond floor, which is how he found himself immersed chest-high in feces. He also takes samples of the spring’s water.

“I cannot say with 100% certainty if people drink that specific water, but it does come from the local aquifer which many people in the area have wells drilled into,” says Reed. “The ground water flow is a black box. We don’t know enough about it.” It is his fascination with the “black box” that motivates his research.

Reed, just weeks away from graduation, is Kiplinger’s Personal Finance ranked Shippensburg University in the Top 100 Best Values in Public Colleges of 2010.

Psychology, Biology, and Communication/Journalism are among the top ten most popular majors at the university.

**SHIP_ALUMNI** has 250 followers on Twitter and the Shippensburg University Alumni facebook group has 2,273 friends and growing.

107 students in the College of Arts & Sciences are completing internships on campus or in the community for academic credit this semester.

A record 300 additional students enrolled at Shippensburg this fall.

The university alumni job placement service has seen an increase of 21% in the number of alumni seeking jobs through the service.
Experiencing a Culture of Research  continued

now “making an aggressive assault on the job market.” He is hopeful that his hands-on experience using field instruments, field techniques, and implementing classroom knowledge in the field will show employers that he has initiative, motivation, and the ability to take on a project and develop it independently.

“Research has been an invaluable experience,” says Reed, who thinks research projects should be mandatory for all students. “If I can do it, they can do it,” he says, gesturing towards a large group of undergraduate students. On top of being a student, Reed is also a husband and a stay-at-home dad with a two-and-half year old son.

Katelyn Moore, Senior, Chemistry Major with a Concentration in Biochemistry

Katelyn Moore jots down chemical formulas and diagrams on notebook paper as she describes the research project she is completing with Dr. Thomas Frielle. She is researching how effective the antioxidant glutathione is at getting rid of substances like free radicals and hydrogen peroxide from human body cells. She is also researching why cells die in the presence of free radicals.

“Working with living cells is very challenging,” says Moore. “There are so many variables to consider. Labs I thought were difficult in class…they’re nothing compared to this.” Moore recognizes that completing a research project is the best way to get hands-on “real life” experiences.

Moore wanted to work with Dr. Frielle because she has had few opportunities to work with him in the past. By working with multiple professors and learning their specializations, Moore accumulates the techniques and knowledge she needs to meet her main goal of becoming a well-rounded chemistry student.

In addition to presenting at the Celebration of Student Research Conference, Moore presented her research at the American Chemical Society National Meeting in San Francisco at the end of March. After graduation she wants to find a job, possibly in a biomedical lab. In the future she would like to go to graduate school and become a chemistry professor.

Elisabeth Davis, Sophomore, History Major and French Minor

Elisabeth Davis finds the Channel Islands, located off the coast of Great Britain, very fascinating. As part of a class with Dr. Steven Burg, Davis has researched the German occupation of the Channel Islands during WWII. “I’m both horrified and fascinated by WWII history,” says Davis.

Davis found conflicting sources about Germany’s occupation on the Channel Islands. Some sources say that Germany’s occupation of the Channel Islands was ideal, and others say it was almost as bad as Poland’s occupation. Davis’s research finds evidence that the reality was somewhere between those two extremes.

Davis contacted historical sites on the Channel Islands to gather information and sources, but many of them charged money that she did not have. In the future she would like to continue working on this project, hopefully with funding to purchase the sources from the historical societies, and delve into what life was really like on the Channel Islands during the occupation.

“It’s the same toxin found in puffer fish,” Pauly explains. This project caught Pauly’s interest because it gives him an opportunity to work on an integrative project across multiple disciplines. Working on the project has strengthened his desire to go to graduate school and earn his Ph.D. in chemistry or biochemistry. He has already been accepted to integrative programs at the University of Michigan and Vanderbilt University.

“ ” We want students to start thinking as scholars, to become experts, and gain confidence in themselves and their research.” –Dr. Dieterich-Ward.
Message | From Dean Mike

As Dean of the College of Arts and Sciences at Shippensburg University I am pleased to be able to write to you about an important and vital educational experience happening across the College of Arts and Sciences – Undergraduate Research. As you read through our newsletter, you will hopefully become more aware that Undergraduate Research activities are teaching activities that strongly support the teaching and learning agenda of the College of Arts and Sciences and Shippensburg University. You will also see that the faculty and students in the College of Arts and Sciences are working together to realize the full teaching and learning benefit of Undergraduate Research.

The departments and programs of the College of Arts and Sciences at Shippensburg University offer our students a rich and diverse variety of educational experiences in disciplines that span an extraordinary breadth of human knowledge. A key aspect for deeply engaging students is to provide them with opportunities to participate in multiple and varied learning activities, both inside and outside of the classroom. Often, those activities occurring outside of the classroom are particularly meaningful and relevant to a student’s educational experience because they can strongly reinforce the knowledge and experience gained within the classroom environment.

There are several out-of-classroom activities that are known collectively as “high-impact” because of the surprisingly effective manner in which they reinforce and compound those learning experiences started in the classroom. Undergraduate Research is a wonderful example of such a “high-impact” learning practice. Through participation in Undergraduate Research activities, students explore the boundaries of knowledge under the support and expert guidance of the faculty. In this manner, research and teaching are intimately intertwined, and each activity supports the other. Students learn in ways that cannot be duplicated in a classroom environment and that build upon their prior knowledge (and build new knowledge!). Faculty are engaged in ways that expand their knowledge and experience, which they carry back to the classroom as well as to other students engaged in Undergraduate Research activities. Most importantly, students begin to glimpse the power of guided inquiry and quickly discover that they can begin making their own contributions to the advancement of knowledge.

Over the past couple of years, the College of Arts and Sciences has begun to deeply explore and have a meaningful dialog about Undergraduate Research. Through the Arts & Sciences Dean’s Advisory Committee on Undergraduate Research, and in other venues, faculty members have begun to discover that Undergraduate Research practices are already occurring in many departments across the College. A recent visit by a Council for Undergraduate Research consultant team, invited by the Arts & Sciences Undergraduate Research Committee, has provided essential feedback and an impetus for examining strategies to foster Undergraduate Research activities. This is being approached in ways that are integrative and maintain curricular relevance while fostering a deeper understanding and embracing the disciplinary differences in how Undergraduate Research occurs. Importantly, challenges are being identified and creative strategies are being explored and proposed so that student/faculty Undergraduate Research activities can be sustained for the improvement of the student educational experience in the College of Arts and Sciences and at Shippensburg University.

James H. Mike, Ph.D.
Dean, College of Arts and Sciences

CAS | Calendar

June

ALUMNI DAYS
06.04.10 Friday Events
9:00-4:00: “The Fluctuating Economy – How it Affects My Estate and Retirement Plans” seminar at Conference Center
2:00 PM: Luhrs Performing Arts Center Tour
7:00 PM: Reunion Dinner & Awards, Reisner Dining Hall Tuscan Room
8:30 PM: Andy Angel Band and Social, Reisner Dining Hall Tuscan Room
8:30 PM “Welcome to the Universe” Planetarium Show, FSC
8:30 PM Pubs and Grubs Tour, bus departs from Stone Ridge Commons

06.05.10 Saturday Events
8:30AM Activities Fair
9:50 AM Reunion Gatherings, Conference Center
12-5:00 PM Artship Arts & Wine Festival, N. Earl St. Triangle
Noon Class Reunion/Award Luncheon, Reisner Dining Hall Tuscan Room
6:15 PM SU Night Dinner, Student Recreation Pavilion
8:00 PM Luhrs Center: Little Anthony & The Imperials

06.06.10 Sunday Events
11-12:30 Worship Service, Cora I. Grove Spiritual Center
11:30-7 PM 22nd Annual Alumni Golf Outing, Range End Gold Club, Dillsburg

For registration information and a complete listing of alumni days events, visit www.ship.edu/alumni

CAS NEWS • SPRING 2010 • 3
Did you ever wish your college classes were held at the beach? While it may sound relaxing, it is anything but that for the Shippensburg University students participating in the Marine Science Consortium. Students from Ship can attend classes on the bays, marshes, maritime forests, off-shore waters, and beaches of Virginia’s eastern shore on Wallops Island.

For over 40 years, Shippensburg University has been a consistent partner of the Consortium, nearly since its opening in 1965. Other PASSHE schools and regional universities are also partners. Through the partnership, students can enroll in summer classes, take weekend field trips with their regular classes, or design a faculty-student research project using Consortium facilities. Last summer 10 Ship students participated in the program.

Mary Dell, senior biology and secondary education major, took Coastal Environmental Oceanography taught by Dr. Sean Cornell, professor of geography and environmental science. Dell speaks animatedly about the opportunities to go snorkeling, boating, and kayaking.

“But it is a lot of hard work,” says Dell. “You have to be willing to be out all day, to like the outside and being involved.”

Veronica Woodlief, a senior geoenvironmental studies major, also enrolled in Dr. Cornell’s class last summer. What she enjoyed most was “having the opportunity to study both on-site in the Chincoteague Bay and then travel to the Florida Keys to do a comparison study, all for one class!”

After graduation, Woodlief hopes to pursue a master’s degree in Oceanography. Her experience at the Consortium now gives her an edge in that field.

“My experiences with the Consortium have shed light on many of the environmental issues affecting the Chincoteague Bay and Wallops Island area,” says Dustin Lowry, junior geoenvironmental studies major. “Studying these issues has led me towards a career choice with the United States Geologic Survey driven by my desire to mitigate and prevent environmental problems.”

This summer the university will add four new classes: Plant Ecology, Geographical Information Systems (GIS), which is also offered on-campus at Shippensburg, a brand new cutting edge course called Marine Molecular Technology, and Advanced Spanish Language, which is an experimental course. Students will work with organizations like NASA and the U.S. Fish & Wildlife Services to translate informational pamphlets into Spanish for visitor centers.

Dr. Cornell says when he came on board with the Consortium four years ago “it was at rock bottom” and only the passion of the faculty kept it running.

But now with the $10 million renovations currently underway, the Marine Science Consortium will hopefully see a greater expansion of courses and partner schools in the future. A new cafeteria has already been built, a new residence hall will open this semester, and in August renovations of administration buildings, labs, and staff housing will begin.

Universities such as East Stroudsburg, Kutztown and Millersville are full senior members of the Consortium because they pay the largest portions of the debt service that finances the renovations. As full senior members their students are given first refusal rights for projects and internships associated with the Consortium and its local resources such as the NASA Wallops Island Flight Facility.

Ship has the potential to become a full senior member, says Dr. Cornell, if more students and faculty become involved with the Consortium.

Extending the use of the Marine Science Consortium to departments other than biology and geoenvironmental science excites Dr. Cornell. He and Shippensburg University associate professor of biology, Dr. Pablo Delis, are both pushing to grow the diversity of courses. The area is rich with culture and history, so in the future they hope to see faculty and students from disciplines like history, sociology, and other departments outside of the hard sciences take advantage of the Consortium’s resources.

Dr. Cornell says, “We’ve barely cracked the book with what we can accomplish there.”

For more on Shippensburg University’s involvement with the Marine Science Consortium, please visit the Geography/Earth Science website at www.ship.edu/geog/ and click on the link titled “Marine Science Consortium,” or see the consortium’s website at www.msconsortium.org
**KASANDRA PLOUTZ** stands on the playground outside the Grace B. Luhrs University Elementary School (GBLUES) surrounded by children asking her to play basketball. Being only five feet tall, she does not often get the opportunity to play basketball, especially not with anyone shorter than she is. She starts breaking out the basketball moves she learned in 7th grade and the kids watch with awe.

“Do you play basketball for Ship?” they ask her. She tells them no, but they are impressed anyway.

Ploutz, a junior psychology major, has been an intern at GBLUES since September 2009. She knows the job field for psychology students is broad and incorporates many different disciplines, so before beginning her internship she did not know which career direction to take. She jumped at the chance to intern at GBLUES because she has always enjoyed working with children and she thought it might help narrow down her career options.

GBLUES is the last laboratory school left within the Pennsylvania State System of Higher Education. It is also the first certified green school building in Pennsylvania, which means it is an energy efficient, low-environmental-impact building. Although GBLUES is associated with the College of Education and Human Services, many students within the College of Arts and Sciences, such as psychology and sociology majors, benefit from Ship’s partnership with the elementary school. Interns and other Ship students have the opportunity for observation and experiential learning by either working one-on-one with students or participating in whole-class activities.

Ploutz’s duties range from making copies to working one-on-one with students to help them develop reading skills or stay focused on their lessons. “My best experience as an intern is the impact I’ve had on the children. I’ve been lucky enough to develop positive and trustworthy relationships with the students,” says Ploutz.

The partnership between Shippensburg University and GBLUES is mutually beneficial. “The elementary school children [at GBLUES] benefit from the interns because they get more individual attention, hear different voices, experience different personalities, and witness different ways to process information and problem solve,” says Dr. William Cobb, director at GBLUES. The partnership also gives interns the opportunity to see classrooms and school situations from a different perspective and gain hands-on experience in the field. There have been about 5,000 individual observations logged by students within the school year in addition to the several interns, student teachers, and students completing professional projects.

After interning for a semester and a half, Ploutz hasn’t fully narrowed down her career search, but she says the internship has strengthened her decision to work with children in a school setting as an elementary school counselor or school psychologist.

**TOM FREZZA**, a graduate student in Applied History, is completing an off-campus internship with the archeological department at Harpers Ferry National Historical Park, where he has previously worked as a seasonal ranger.

Frezza is creating an archeology curriculum, which includes finding sources of funding, to be implemented by the park’s education program. He works independently but meets with the head of the Archeology Department and the Education Department twice a month to review lesson plans and shape the program to fit their needs.

“Developing the program from scratch has been challenging at times, but with the help from both departments, a great program has been forming,” says Frezza.

Frezza says his experience developing programs at Harpers Ferry is a great item to put on his resume to showcase his experience developing programs for the Park Service that will hopefully lead to a full-time career as a National Park Ranger.

“I would like to be a full-time National Park Ranger,” says Frezza. “It is something I have always wanted to be.”

The curriculum will allow school children from the region to learn about the importance of archaeology and the protection of our cultural resources. The school children will participate in hands-on activities designed to enhance their understanding of archeology and excavation principles.

“The creation and implementation of this educational program is extremely beneficial to the Park Service because it allows us to educate students about the importance of preserving and protecting our cultural heritage,” says Darlene Hassler Godwin, an archeologist at Harpers Ferry who works with Frezza.

Godwin says that over the years interns at Harpers Ferry have worked with park staff on projects such as archeological excavations, collections management, educational programs, historical preservation, and natural resource management.

“The involvement of interns in these park programs enhances the knowledge base and accomplishments of the entire park,” Godwin says. Interns learn skills that will assist them in future careers, she says, but both the park and the interns benefit from each other’s knowledge and goals.

Many interns have returned to Harpers Ferry as full-time employees, but many more have gone on to work at other parks or partner organizations affiliated with the Park Service. Godwin says that Frezza was recruited by the Alice Ferguson Foundation to work with the Bridging with Watershed program while interning at Harpers Ferry.

Frezza says his experience developing programs at Harpers Ferry is a great item to put on his resume to showcase his experience developing programs for the Park Service that will hopefully lead to a full-time career as a National Park Ranger.

Shippensburg University has a long history of providing internships for students and employers which increase and strengthen the relationship between the university and the community. Please visit [http://www.ship.edu/cas/internship/](http://www.ship.edu/cas/internship/) for more information.
Dr. Sean Cornell

Department: Geography/Earth Science
Professional Memberships:
- Paleontological Society—chair
- Geological Society of America
Other University Involvement:
- Marine Science Consortium Coordinator
- Academic Day Leader

You can feel Dr. Sean Cornell’s passion for geology and earth science, his students, and his teaching through the excited and engaging way he speaks about them. Working in the field, tackling new challenges, and inspiring students to push themselves beyond their comfort zones are the reasons he enjoys teaching in the Geography/Earth Science Department at Shippensburg University.

One of Dr. Cornell’s many responsibilities includes coordinating the Marine Science Consortium program, which offers students opportunities to engage in field studies in a range of science disciplines.

It is important that his students get hands-on experience working in the field. “It creates such powerful experiences that you can’t teach in a classroom,” Dr. Cornell says.

Dr. Cornell is a field geologist with specialties in oceanography, paleontology, paleoecology, and sedimentary geology. He also has experience with environmental science. Dr. Cornell enjoys engaging students in collaborative research projects that fall within his areas of expertise.

As a chair member of the Paleontological Society and a member of the Geological Society of America, Dr. Cornell regularly attends the Geology Society of America’s annual conventions. In the fall he presented his research on the pedagogy of field research. Graduate student Teddy Them and senior Veronica Woodlief each presented an additional paper with Dr. Cornell. The value of these experiences transcends the classroom, benefitting the student as they continue in the field after graduation.

Academic Day, which is part of the New Student Orientation, is another arena of campus life in which Dr. Cornell is involved. He takes pride in having helped create the New Student Pledge, which is a set of positive guidelines for students to live by.

In the future Dr. Cornell hopes to continue to implement new programs and find new ways to inspire students to make good decisions, strengthen their career choices, and create a passion for learning and education.

More about Dr. Cornell can be found at http://webspace.ship.edu/geog/faculty/cornell.html

Advisory Board I Profile

Tom Jackson

On a wall in Tom Jackson’s home is a political map of the world with a pin stuck into each country he has visited. This map looks like a porcupine’s skin.

For over 40 years, Tom has been an active member of the Masonic Lodge. In 1979 he was elected Grand Secretary of Grand Lodge of PA, a position he held for 20 years. He currently holds the title of Executive Secretary to the World Conference of Masonic Grand Lodges. It is through his work with the Masonic Lodge that he and his wife, Linda, have had the opportunity to travel the world and meet many great people.

“Where I am at the time” is Tom’s favorite global destination. He does, however, look forward to traveling to Italy for the delicious food.

“One of the great joys of traveling is trying new foods,” says Tom. He has dined on mopane worms in Africa, hundred-year eggs in the Philippines and has tasted python, crocodile, gazelle and ant-eater meat.

Not only does Tom travel, but he is bestowed awards in many locations he visits. Proudly displayed in his home are cases and walls filled with colorful medals and cultural souvenirs honoring him for his Masonic service and accomplishments.

Out of all of Tom’s awards and accomplishments, he believes his greatest achievement was becoming an Eagle Scout. He is proud to be one of only about 2% of Boy Scouts who have reached this rank.

“I worked hard for it,” he says. “Achieving the rank of Eagle Scout taught me I was capable.”

Tom’s capabilities led him to graduate in 1958 with a bachelor’s degree in biology and a minor in chemistry from Shippensburg State Teacher’s College, which became Shippensburg University. He later went to Pennsylvania State University to earn a master’s degree in Zoology. He was the first member of his family to earn a college degree.

“I appreciated the opportunity I had to go to Shippensburg,” Tom says. He says it changed his whole concept of thinking. At Shippensburg, he acquired his love for learning. He had to take classes he did not want at the time, but now he recognizes they gave him a much broader education.

His appreciation for his Shippensburg education is one reason he has become an advisory board member for the College of Arts and Sciences. He enjoys his board membership because it gives him a platform to express his opinions and feelings, of which, he says, he has many.

In the future, Tom hopes to continue to travel to see new places and meet new people as well as spend more time at home with his wife and working outdoors in his gardens.

More about Tom Jackson can be found at http://webspace.ship.edu/geog/faculty/jackson.html
For three decades, The Shippensburg University Foundation has had one mission: to nurture excellence at Shippensburg University. Through its fundraising activities, the SU Foundation attracts support for programs and facilities identified by the University’s leadership. This support, which touches virtually every corner of the campus and enriches the lives of students, provides the resources needed to sustain and enhance the quality education possible at Shippensburg University.

Each year the Shippensburg University Foundation starts anew in raising annual support for the benefit of Shippensburg University. The unrestricted dollars given through the alumni, parent, and general annual funds is in-turn given to the University in the form of a grant, which is dispersed by the President to support growing programs and important initiatives such as joint undergraduate student/faculty research. Research dollars are made available for student research through the Institute for Public Service granting process. In 2008-2009, $3.5 million dollars, consisting of unrestricted as well as designated funds, was provided to the University from the SU Foundation. Of that, approximately $50,000 was available for joint undergraduate student/faculty research. In 2009-2010, that amount just surpassed $55,000.

Joint undergraduate student/faculty research is an example of “high-impact” learning and is becoming increasingly important for the student experience as the skills practiced in this environment can positively impact future employment and graduate degree opportunities. While this type of hands-on learning occurs most often at the graduate level, what sets Shippensburg University apart is that this activity is occurring at the undergraduate level, giving students a leg-up on the competition. Through participation in undergraduate research activities, students and faculty together explore the boundaries of knowledge and students begin to glimpse the power of guided inquiry and can start making their own contributions to the advancement of knowledge. This is the margin of excellence that brings Shippensburg University students to the forefront of academic and professional achievement and success.

Each year, the SU Foundation’s supportive efforts provide that margin of excellence for programs primarily serving students and faculty. Alumni continue to be the source of the greatest amount of annual support for their alma mater, and the dollars given to the annual fund through phone-a-thons, direct mail appeals, and personal solicitations provides support for the current needs of the University. Therefore, part of the funding provided for students, in essence, comes from the generous donations of those who have given in the last fiscal year to the annual fund. For that we thank you, and ask you to continue to give back to help Ship move forward.

Alumni | Professional Achievements

Received a promotion or a new degree? Recently published or started a new business venture? We know that by sharing the success stories of alumni and friends of the College of Arts and Sciences current students are inspired to achieve their goals. **So help us spread the good news about what you are doing and let us know about your professional achievements by sending an email to cas@ship.edu.**

Please include your name, graduation year, contact information (phone or email address), and a few lines about your achievement. This is a great opportunity for you to highlight the successes you’ve had to other Ship grads and friends while inspiring others to also lead the way!

planned giving

The ability to give accumulated personal resources for the support of SU through the SU Foundation is a wonderful thing. Even better it can be your opportunity to gain immediate benefits from your gift while increasing the impact of your generosity! Your personalized gift plan can help to accomplish several goals at the same time:

- Leave a Legacy
- Meet your individual needs
- Help to secure your family’s future
- Transform the University, a program or a student’s life

**Please contact the SU Foundation at (717) 477-1377 for more information.**

help us save one of these...

Consider receiving the College of Arts and Sciences newsletter electronically. By subscribing to this twice-a-year publication, you will be saving time and money as well as be able to access handy links to pages of interest for a more in-depth look at what’s going on within the college. **It’s completely free of charge and available to you by sending an email to cas@ship.edu.** Thank you for helping us be more eco-friendly!
Preparing students by practicing industry standards

When Erin Bailey was an undergraduate majoring in psychology at Shippensburg University, she took a class called Research Design and Statistics I in which she and her classmates had to calculate statistics by hand. The process was tedious and time-consuming, and while it is a compulsory element of the required coursework, it is a skill she will not likely utilize regularly in the professional world. So when Erin took Research Design and Statistics II, she was eager to use statistical software called SPSS, which stands for Statistical Package for the Social Sciences, for calculations.

During senior and junior years, Erin continued to broaden her experience and skill with these programs by working alongside several professors on joint undergraduate-student/faculty research projects. Through her senior year, Erin worked with Dr. Lea Adams to study gender differences in cell phone usage, and later presented on the subject at the Association for Psychological Science in Chicago, IL. That same year, Erin also worked with Dr. Adams on a second research project, exploring the validity of a phenomenon known as the “CSI Effect,” which is suspected of influencing juror decision-making based on the strength or lack of forensic evidence.

The equipment Erin and her faculty mentors utilized to conduct the experiments and data analysis included a computer monitor purchased with Kresge Science Endowment funds. Critical in conducting accurate research, the statistical software utilized significantly lightened her work load and allowed Erin to concentrate on the analysis of results, rather than on the computation of statistics. The equipment and corresponding software purchased with Kresge Science Endowment dollars for the Department of Psychology has directly enabled Erin to effectively complete her research and put into practice the techniques she will be expected to employ as industry standards.

Also purchased within the Department of Psychology, using Kresge Science Endowment Funds, were two research programs called LISREL and E-Prime, both of which are used for faculty development. LISREL stands for linear structural relations, and is an advanced statistical experimental software program. It is used to analyze and design advanced research protocols. E-Prime, another program used to design, collect, and analyze data from an experiment, is used by more than 15,000 professionals in the research community. Both of these programs are necessary tools in modeling the industry practices that students will need as they enter graduate schools and/or the workforce.

Erin explains, “All of these systems have greatly impacted my knowledge of the research process. Their availability allows us to pilot our research ideas.” SONA, a web-based subject pool management software system designed for universities, allows researchers to examine trends in raw data and computes complicated formulas within seconds. “It makes it easier to collect substantially more data than relying on ‘word of mouth’ in testing an experiment.”

Now as a graduate student at Shippensburg University, Erin continually calls on the knowledge gained in the classroom and the research skills she developed out of the classroom to continue working on joint student/faculty projects and her graduate thesis.

Erin speculates that many undergraduate students studying psychology think their only option is to go into clinical psychology. Having the statistical software to use, many students might consider other career possibilities, such as market research, project design or work in the business sector, all of which require strong research skills and are avenues Erin is now considering. “It’s a great benefit to have packages like this available for students to use because it opens up a whole new set of possibilities.”

This is just one illustration of many more that highlight the major importance and benefit of such an endowment.
**Replacement of outdated science equipment**

Here is another example of how the support of alumni, parents, and friends for the Kresge Science Endowment Fund has benefited students at Shippensburg University:

The current infrared spectrometer, used routinely by majors in Organic Chemistry, was antiquated and in poor condition, yielding nearly unreadable spectra. The model was also no longer serviceable due to age and therefore was in limited use by a few students. Modern instrumentation purchased using Kresge Science Endowment funds makes sampling of solids simpler, less time-consuming, and is in line with current industry application and standards.

**Continued Sustaining Support Still Needed**

When Franklin Science Center opened in the early 1970s, all new equipment was in place for students to use. Back then, about 80% of Shippensburg University’s operating budget came from the state of Pennsylvania. State funding began a dramatic decline in the 1980s through 1990s, with no end in sight for further drop. Today, only 38% of the Shippensburg University’s operating budget comes from state appropriations. Students end up bearing more and more of the direct costs, even equipment use costs.

Established in 2004, the Kresge Science Endowment became a way to fill the gap between state appropriations and the ever-increasing costs of maintaining, repairing or upgrading, and replacing scientific equipment and instrumentation. Unlike many other similar institutions, the equipment supported by the Kresge Science Endowment at Shippensburg University is available to both general education students and students majoring in the sciences of Biology, Chemistry, Geography/Earth Science, Physics, and Psychology at no additional cost to them. However, the need continues to grow as state dollars continue to decline and associated costs for equipment maintenance continue to rise.

**Building the Kresge Science Endowment**

The Kresge Science Endowment has become a vital part of the academic success of students at Shippensburg University.

Without this endowment, there would be few financial resources available for the maintaining, repairing or upgrading, and replacing critical science equipment and instrumentation needed to provide students with the necessary skills they will require to become successful in their chosen profession.

Firsthand equipment experience is essential for science majors as well as all students through the general education coursework. This hands-on experience helps “Ship” students get into grad schools, or health related professional schools, or careers in teaching, or science-related research in industries and the tech world. Gifts to build the Kresge Science Endowment benefit us all by preparing students as future doctors, medical technicians, engineers, psychologists, and environmental planners, to name a few.

If you are considering a gift to help build this vital endowment, please feel free to contact the SU Foundation at 717-477-1377 or to give online go to www.sufoundation.org to “Make Your Gift.”

**Grants awarded**

Once the cash principal within the Kresge Science Endowment had at least a year of investment returns, grant awards began. Here are department grant recipients from the last few years:

- 2008-09: Physics & Biology
- 2007-08: Geography/Earth Science & Chemistry
- 2006-07: Psychology & Biology

**Honoring your favorite professor, or someone else**

For every $1,000 gift or commitment to the Kresge Science Endowment, a favorite professor or another individual can be honored. Details about how to name a gift in honor of someone is available through the Shippensburg University Foundation office, 717-477-1377. A form can be mailed or faxed to you. If you have already made a gift to this fund, we thank you for your generosity and ask you to consider continuing to give to this ongoing need.