

# Sonoma State University School of Science & Technology

Volume I, Issue I

December 6, 2011

## A Note from the Dean

Welcome to our first issue of the SSU School of Science & Technology (SST) newsletter. There is so much exciting information to share and it is our hope to use this publication to highlight some of the many activities going on in our school. We encourage you to join us and reconnect with SST if you have been away, and we hope everyone will be able to engage in our vibrant teaching-learning-research community.

As you may know, we have nine academic departments in SST: Biology, Chemistry, Computer Science, Engineering, Geology, Kinesiology, Mathematics & Statistics, Nursing and Physics & Astronomy. We have 1580 undergraduates majoring in SST disciplines with our largest programs in Biology and Kinesiology (each with about 400 majors). Last year over 330 SST undergraduates completed their degrees – up 10% from the year before. A statistic we are very proud of! At the graduate level, we have nearly 200 master's students in Biology, Computer & Engineering Science and Nursing. The Nursing master's programs graduated 68 MS Nursing students this past May. With the help of many dedicated and talented individuals, this year we were able to add a BA in Earth Science and a BS in Electrical Engineering, while the BS in Nursing was completely revised! Our school is always evolving to meet new and changing needs and opportunities.

SST is very proud of our students, alums, faculty and staff; many of who are celebrating outstanding academic and scholarly achievements. Some talented upper-division students are involved in senior projects and research experiences, including over 20 students who received campus funding for their work. Other outstanding achievements include the five Spring 2011 Chemistry graduates who are now enrolled in PhD programs at UC Berkeley, UC San Diego, UC Santa Cruz, and Johns Hopkins, as well as the Computer Science teams behind the development of the SSU mobile App for the iPhone. Arguably some of SST's greatest achievements – our alumni – also have reason to celebrate. Two of our alums, Hojabr "Hoji" Alimi and Zeynep "Zee" Hakimoglu, were honored as SSU Distinguished Alumni this fall. Hoji received his degree in biology and is CEO of Oculus Innovative Systems, a biopharmaceutical company. Zee is a physics alum and is currently the president and CEO of ClearOne Communication. Another standout is Robert A. Johnson, who received a CSU Honorary Degree for his strong involvement in sustainability initiatives including the donation of the Galbreath Wildlands Preserve to SSU in 2004. Passionate students and faculty are actively engaged in field-based inquiry on this preserve.

In other news, there are several academic initiatives underway at the CSU system wide level, including the



### Note from the Dean Continued from page 1...

Student Transfer Agreement Reform Act (SB 1440) and the Graduation Initiative. SB 1440 legislates the smooth transition of transfer students from California Community Colleges to the CSU. Transfer Model Curricula (TMC) are being developed as part of SB 1440 to define Associate of Arts (AA) degrees that will enable these AA students to complete their bachelor's degree at the CSU in two additional years. The Graduation Initiative seeks to improve the graduation rate and narrow the achievement gaps among students. SSU is actively involved in responding to each of these initiatives, which have thus far been very successful, with our retention and graduation rates increasing 4% across campus. We are proud to report that STEM (Science, Technology, Engineering and Math) students' one-year retention rates are up 10% to 70%, and our 6-year graduation rate increased 6% to 27%. These improvements can be attributed to a number of changes and interventions including curriculum revision, supplemental instruction, peer mentoring and continued faculty-student interaction. But we need and want to do more and we certainly welcome your help and suggestions!

SST continues to seek external funding to support our excellent programs, student-faculty collaborative research and other innovations. SST faculty and students received over 40 funding awards totaling nearly \$5,000,000 this past year. Several of these awards are highlighted in this newsletter including an NSF STEP (STEM Talent Expansion Program) grant. As part of this STEP grant, we are developing an innovative first-year curriculum focused on environmental sustainability. The courses will integrate biology, mathematics and critical thinking learning objectives with service-learning, hands-on lab work and field-based experiences.

At the national level, President Obama has made improving STEM education and increasing the number of STEM graduates one of his top priorities. Studies point to the need to broaden participation in STEM to include more minorities and women, and to encourage STEM topics in elementary grade levels. SST is committed to these priorities and, despite the challenges of the California state budget, we will continue to judiciously manage our finances to find innovative cost saving and program enhancing measures. We hope our alumni and community partners will continue to be generous in their support for SST and that they will find purpose and pleasure in the invaluable dividends of student learning and achievement.

Finally, it is with great respect that we wish Dr. Saeid Rahimi and his family the very best as he enters retirement and returns full circle to his teaching roots through the Faculty Early Retirement Program. As the Dean of the School of Science and Technology and as the Interim Provost of SSU, Dr. Rahimi's leadership and vision for our school and campus as centers of excellence leaves us with a valuable legacy and the strengthened commitment to reach for even more in the service of our mission.

Thank you to all for your contributions to the continuing success of SST. If you want further information, please feel welcome to stop by Darwin Hall, access our website ([www.sonoma.edu/scitech/](http://www.sonoma.edu/scitech/)), call my office at (707) 664-2171, or email me at [lynn.stauffer@sonoma.edu](mailto:lynn.stauffer@sonoma.edu).

A handwritten signature in cursive script that reads "Lynn Stauffer".

Lynn Stauffer, Ph.D.

Interim Dean, School of Science & Technology

## SST Chemistry Professor Receives Excellence in Teaching Award



Dr. Farmer, from the Chemistry Department, was awarded the Excellence in Teaching Award from Sonoma State University for 2011-2012 for his outstanding teaching and his exceptional contributions and activities beyond the classroom. The following is Dr. Farmer's reaction to the award: "I am very honored to have received this award. Being recognized by students in such a way should be the highlight of any educator's career. I am proud to be part of the excellent teaching community here at SSU." SST sincerely congratulates Dr. Farmer!

## 2011 Santa Rosa Excellence in Teaching Awarded to Biology Professor

Karina Nielsen has received the 2011 Santa Rosa Excellence in Education Award for 4-year universities. The award honors outstanding educators in all education levels who have been nominated for their contributions toward the education of our youth and their commitment to education. Dr. Nielsen teaches courses across the biology curriculum including engaging general education courses, advanced topics courses for graduate students, large lectures, small seminars, and laboratory-based and field-intensive experiences. Her research endeavors explore the "Science of the Salty, the Slimy & the Spineless in the Sea" and she seeks to better understand the fragile environment of the western coastline. Congratulations to Dr. Nielsen on this great honor.



## New SST Faculty – Welcome!

Michelle Kelly is the newest addition to the Nursing Department. She earned her Doctor of Nursing Practice in 2009 from the University of San Francisco. Dr. Kelly's research areas include refugee health and post hospital measures to prevent readmission.



The Engineering Science Department welcomes Jack Ou. Dr. Ou received his Ph.D. in Electrical and Computer Engineering from Rutgers University. His research interests are in RF and Analog CMOS integrated circuits.

Dr. Bulent Sokmen has joined the Kinesiology Department. Dr. Sokmen attended the University of Connecticut and received his Ph.D. in Kinesiology. His research includes Environmental Exercise Physiology, Sport Nutrition, and Exercise and Health Fitness.



## SST Lecture Series

SST departments organize lecture series that are open to the campus community and public. Speakers from academia, industry, and business present state-of-the-art topics in science, technology and math. For more information on upcoming lectures please visit: <http://www.sonoma.edu/scitech/lectures/>

## Funding Awards & Grants for SST

The hard work of many faculty members and students in the School of Science and Technology has paid off – literally! Below are highlights of some of our recent awards:

SST is the recipient of three new grants from the National Science Foundation. The largest grant, for almost one million dollars over five years, will be used to develop programs to encourage an increase in the number of students who will graduate as "STEM" (Science, Technology, Engineering and Mathematics) majors from SSU. Major contributors to this project were Dean Lynn Stauffer, Physics and Astronomy Professors Lynn Cominsky and Jeremy Qualls, Biology Professor Nathan Rank, and Claudia Luke, Director of the SSU Field Stations and Nature Preserves.

A grant for \$308,454 for Major Research Instrumentation was awarded to the Department of Chemistry. This funding will bring a high-power nuclear magnetic resonance (NMR) spectrometer to SST and allow for the enhanced study of the physical and chemical properties of molecules.

Chemistry Professor Carmen Works was awarded \$129,754 over three years to do research with undergraduate students through the NSF Research in Undergraduate Institutions program. Professor Works will study iron-only hydrogenase compounds.

Dr. Karina Nielsen has been awarded \$370,000 for her contributions to the collaborative project: "The role of calcifying algae as a determinant of rocky intertidal macrophyte community structure at a meta-ecosystem scale." Total funding for the project is \$1,119,999.

The CSU Council on Ocean Affairs, Science and Technology awarded five Biology graduate students funds to support their ongoing coastal and marine research. Summer 2011 COAST Student Awards for Marine Science Research were awarded to Joshua Cutler, Adele Paquin, Jill Stokes, Michael Tift, and Preston Malm.

Dr. Jenn Lillig, Dr. Joseph Lin, and Dr. Jon Fukuto have been awarded funding from CSUPERB (CSU Program for Education and Research in Biotechnology), which is a program supporting advancement in biotechnology across the CSU. Professor Lillig from the Chemistry Department was awarded a CSUPERB Research Development Grant for \$14,992 for the proposal, "Mutagenesis and Modeling Studies of the Antimicrobial Peptide Carnobacteriocin B2." A CSUPERB New Investigator Grant in the amount of \$15,000 for the proposal, "Generation of Antibodies to Characterize the Alternative Adaptive Immune Response in Sea Lamprey, *Petromyzon marinus*," was earned by Professor Joseph Lin of the Biology Department. \$10,000 for a CSUPERB Entrepreneurial Joint Venture Matching Grant was received by Professor Fukuto from the Chemistry Department for his proposal, "Studies on the Biosynthesis of HNO."

## NASA E/PO News

The NASA Education and Public Outreach group, located on the third floor of the Schulz Information Center, has been busy this past semester putting the finishing touches on the pilot module for the on-line curriculum "Big Ideas in Cosmology." To be published by Kendall-Hunt, this online course will eventually be available to Sonoma State students and others across the country who wish to learn more about Astronomy than can be taught in the popular Astr 100 class. Students who are interested in helping to test the new course should enroll in Astr 350 Cosmology in the Spring 2012 semester.

## LSAMP

The Louis Stokes Alliance for Minority Participation (LSAMP) is an NSF sponsored program designed to broaden participation in science, mathematics, engineering and technology (STEM) disciplines and increase the number of students receiving baccalaureate degrees, and ultimately Ph.D.s, in STEM disciplines.

LSAMP has had a positive impact on SSU. It has helped increase the diversity of the student body by providing financial support to underrepresented students, thus helping with their retention and persistence. This past year it reimbursed participants for textbooks for a total of more than \$8000, and provided research stipends to eight participants, each receiving an average of \$1800. This allowed them to work on research instead of working at a job that might not help prepare them for graduate study. Additionally, LSAMP annually awards two \$2000 scholarships to LSAMP "Scholars" which helps them prepare for graduate studies.

The following are some accomplishments of SSU LSAMP participants:

- Jenna Bernard graduated from SSU in the spring of 2011 and was accepted to graduate programs in chemistry at Stanford, UC Berkeley, UC Davis, and UC Santa Cruz. She is attending UC Berkeley this fall.
- Chad Griffith graduated from SSU in the fall of 2008 and is attending UCSB to pursue a Ph.D. in Statistics. Chad just finished the BD at CSUN, receiving an M.S. in Applied Mathematics.
- Juan Murillo Pacheco (former LSAMP Scholar) graduated from SSU in the spring of 2010 and is continuing his studies in Mathematics in the Ph.D. program at the University of Iowa.
- Tyler Chavez graduated from SSU in the spring of 2011 and was accepted into five graduate programs to pursue a Ph.D. in Chemistry. He is attending Johns Hopkins this fall.
- Nick Dowdall (former LSAMP Scholar) graduated from SSU in the spring of 2007 and received his Master's in Mathematics at San Francisco State in the

spring of 2011.

- Diego Morales (who is a senior in 2011-2012) received funds from LSAMP to perform research on the following manuscript:

Morales, D. P.; Taylor, A. S.; Farmer, S. C. Desulfurization of Dibenzothiophene and Oxidized Dibenzothiophene Ring Systems. *Molecules* 2010, 15, 1265-1269.

## MESA DAY 2011

On Saturday, April 30th, over 800 middle and high school students came to the SSU campus from as far north as the Oregon border and as far south as San Jose to attend the annual Math, Engineering, Science Achievement (MESA) Day Competitions for the Northern California region. Together with parents, advisors, and over a hundred judges and volunteers, there were approximately one thousand people in attendance.

MESA is a 41-year-old state program working with thousands of educationally disadvantaged students to help them to excel in math and science and improve their chances of obtaining engineering and other math-based degrees. In 2008, a MESA chapter was established at SSU. This year, the university hosted the annual regional MESA Day for the first time.

In addition to solo and team math tests, the competitions included flying gliders, racing cars built from mousetraps, strength tests for bridges built using manila folders or ice-cream sticks or balsa wood, building models of the human brain, arm and eye, and dropping eggs in protective cases from the roof of the Stevenson Building. In order to be eligible for this event, MESA students had to place among the top three in their age group at preliminary local contests.

The event was a huge success. SSU mathematics professors Brigitte Lahme and Izabela Kanaana (the current director of SSU MESA)

**MESA Day 2011 Continued on page 8...**

## A Saturday Sidekicks Halloween

The annual Saturday Sidekicks Halloween party was frightfully fun! Saturday Sidekicks is a physical activity program for children and teens with disabilities from local communities. Kinesiology majors, along with students from Environmental Studies, the School of Education and the Psychology FIG program, serve as buddies for each participant. Activities are designed and led by advanced Adapted Physical Education students.

The program was established in 1996 and runs for eight Saturdays each semester. Younger children roll and slide down mats, shoot baskets, ride on scooter boards, swing, kick balls, and jump rope; teens engage in modified sport and recreational activities. "This program is a win-win for SSU and the community. SSU students gain hands-on experience, and the children make gains in motor and interpersonal skills through their relationships with their student mentors," says Elaine McHugh, Kinesiology Professor and Director of the program.



## Biology Grad Student Investigates Toxic Bay Area Algal Bloom

Biology master's student, Adele Paquin, in collaboration with her advisor, Dr. Karina Nielsen, is studying a recent algal bloom along the northern California coast that caused a wave of death among abalone and other sea creatures. Her work is reported on in the SSU Newsletter ([www.sonoma.edu/newscenter/2011/10/toxic-bloom-mystery-may-be-answered-by-ssu-grad-students-seawater-samples.html](http://www.sonoma.edu/newscenter/2011/10/toxic-bloom-mystery-may-be-answered-by-ssu-grad-students-seawater-samples.html)) and the Point Reyes Light publication ([www.ptreyeslight.com/Point\\_Reyes\\_Light/Home/Entries/2011/10/13\\_Cryptic\\_phytoplankton\\_may\\_hold\\_an\\_answer.html](http://www.ptreyeslight.com/Point_Reyes_Light/Home/Entries/2011/10/13_Cryptic_phytoplankton_may_hold_an_answer.html)).

## Summer High School Internship Program

Summer 2011 marked the fourth year of the Summer High School Internship Program (SHIP Program) sponsored by Sonoma State University and the Sonoma County Office of Education (SCOE). Faculty members submit research proposals in early spring and the high school students selected for the program work, the equivalent of four full-time weeks over the summer with their faculty mentors, on these research proposals



Students and faculty mentors at the SHIP Symposium in September 2011

and often collaborate with undergraduate or graduate students in the lab. Students and faculty both received small stipends for their work: student stipends were provided by SCOE, and faculty stipends were provided by SST and a STEM pipeline grant to Physics & Astronomy Professor Lynn Cominsky from the California Space Grant. Information for Summer 2012 will be available in early February.

## Geology Professor Wins Award



Dr. Matt James received the 2011 Karl Kortum Award for Maritime History for his work detailing the 1905-06 research expedition to the Galapagos Islands of a team from the California Academy of Sciences.

The award is administered by the San Francisco Maritime Museum.

In addition to this prestigious award, Matt James has been elected a Governing Member of the General Assembly of the Charles Darwin Foundation for the Galapagos Islands (CDF), an international group of scientists, conservationists, and policy makers that provides scientific research and technical information and financial assistance to ensure the proper preservation of the Galapagos Islands. For fifty years, CDF has worked closely with the Galapagos National Park Service (GNPS), the main Ecuadorian government authority overseeing the safeguarding of the islands' natural resources. The governing body of CDF includes the President of Ecuador and HRH The Grand Duke of Luxembourg. James anticipates traveling annually to Quito and the Galapagos Islands to attend the annual meetings of the CDF General Assembly.

## New Programs

Starting Fall 2011, the Engineering Science Department offers a B.S. in Electrical Engineering with an emphasis in electronics and communications. The department also offers a minor in Electrical Engineering. The program has been designed with the goal of receiving ABET accreditation.

The Geology Department is now offering a B.A. in Earth Science. The Earth Science B.A. is designed to provide students with a firm foundation in the geological sciences. A diversity of elective courses allow students interested in related fields to build a supplementary minor. It provides a clear path to graduation and is ideal for students pursuing careers in earth science education, state agencies, and environmental geology, and hydrogeology.

## Actuarial Science @ SSU

It has been an exciting year for the actuarial science program at SSU. The newly approved degree in Bi-Disciplinary Mathematics, as well as both the B.S. in Statistics and the B.A. in Applied Statistics all provide students interested in pursuing a career in actuarial science with a variety of options. Plans are also being developed to soon begin offering a minor in actuarial science.

Actuarial students are generally required to take a series of actuarial examinations throughout their careers. Completion of various exams is a requirement in order to earn certain designations from the Society of Actuaries (SOA), including the prestigious and highly rewarding SOA Associateship and Fellowship status. The Department currently offers courses to help students prepare for the first two examinations, which cover probability and financial mathematics. A reimbursement program to help students cover the costs of taking the exams was also recently established. The Department is very proud of two SSU students, August Blodow and Jill Schlichting, each of whom recently passed the first two actuarial exams; WAY TO GO August and Jill!!

Another recent development pertains to the SOA Validation by Education Experience (VEE) requirement. Completion of each of three areas of VEE is required in order to partially satisfy the requirements for earning SOA Associateship status. Those areas are finance, economics, and applied statistics. During the past year, various SSU courses have been approved by the SOA as courses that satisfy these requirements, thus students are able to complete each of the three VEE areas while pursuing their degrees.

Anyone interested in finding out more about actuarial science at SSU should contact Dr. Scott Nickleach at [scott.nickleach@sonoma.edu](mailto:scott.nickleach@sonoma.edu).

## Mathematical Modeling Competition

Every year in February the Consortium of Mathematics and its Applications (COMAP) organizes an international Contest in Mathematical Modeling. This year more than 3000 teams from hundreds of institutions participated in the contest. The competition starts on Thursday night when two very open ended mathematical modeling problems are posted on the COMAP website. The participating teams have 4 days to research the problem, come up with a model and write a paper outlining their solution. The competition does not just test mathematical knowledge but also teamwork and communication skills.



This year, SSU had one team participating in the math modeling competition. Alex Fleischmann, Jacob Peters and Austin Powell tackled a problem that required them to develop a model for a network of VHF radio repeaters. After 4 days of intense work, including Valentine's Day, they finished their paper and sent it in with 5 minutes to spare. The team did a great job, earning a "successful participant" finish in the competition. Austin Powell presented the results of the team's paper at the Northern California Undergraduate Mathematics Conference at the University of the Pacific in April 2011.



## Bi-Disciplinary Concentration Report

This spring the Math Department began offering a new B.A. concentration in Mathematics: The Bi-Disciplinary concentration. This concentration requires 30 units in mathematics, at least 14 at the upper-division level, and 22 units from another discipline, at least 12 units at the upper-division level, chosen so that the study of each discipline complements the other. While the concentration does not require a second major, it is ideal for students who want to add a math major to their current major and still graduate on time. This semester alone, 15 students have declared the Bi-Disciplinary concentration. We are hopeful that this new concentration will continue to contribute to our growing number of majors. In the past two years, we have grown from 75 majors to 116.

## MESA Day 2011 Continued from page 5...

were among the organizers. SSU Math Club President August Blodow set up a "Math Puzzle" table in the Darwin Lobby, which had a busy crowd of people around it the entire time. Over thirty other mathematics and statistics students and faculty assisted with the event as volunteers and judges. To learn more about MESA go to [mesa.sonoma.edu](http://mesa.sonoma.edu).

## Philanthropy & SST

If you are interested in learning more about our school and how our vision may align with your plans for giving, please contact us (707) 664-2171.



## News from the Biology Department

This semester, the Biology Department welcomed Dr. Andrew Rogerson, the newly hired Vice President of Academic Affairs, to its fold. Dr. Rogerson is a research biologist who works with eukaryotic microbes, conducting extensive research on naked amoebas and apahloutic diatoms. On a recent tour of the Biology Department, Dr. Rogerson conversed with graduate students in several of the labs, taking a particular interest in Adele Paquin's work with the dinoflagellate implicated in the recent algal bloom on the Sonoma coast.

Biology alumni have been up to great things! Aaron Agostini (MS 2011) was awarded the first Achievement Rewards for College Scientists Fellowship in the history of the Department of Plant Pathology at Washington State University. This award provided Aaron with \$17,500 that will help him pursue his Ph.D. studies. Cadan Hare has won The Green Award, which is a \$25,000 prize that will allow him to continue his work on the FAB project (Fuel from Aquatic Biomass).

Meanwhile, faculty and students have been engaged in many outreach activities. Insectapalooza, of course, kept many Biology students busy throughout October, culminating in the all-day event itself. Dr. Nick Geist presented a Turtle Talk at the Lake County Land Paths organization, which helps under-write his turtle research staged in Lake County. He also led a field exploration at nearby Pepperwood Preserve about the local reptiles and amphibians; then, taking a step back in time, held a lecture discussing his studies of archosaurs and pterosaurs. Dr. Dan Crocker just returned from the 19<sup>th</sup> Biennial Conference on the Biology of Marine Mammals held in Tampa, Florida, where a contingent of his current and alumna students presented papers and posters. Surely a welcome, though sultry, break from the shifting weather patterns here.

In November, several of Dr. Karina Nielsen's students attended and presented the results of their research at the Beyond the Golden Gate Conference held at the Presidio. Later, those same students accompanied Dr. Nielsen to the Western Society of Naturalists in Vancouver, Washington, where they also presented their work. Many of these posters line the walls of the second floor of Darwin hall and will introduce you to the wide-ranging activities that the Biology students and professors participate in, from tiny protists to the mammoth marine beasts; from the devastating effects of *P.ramorum*, to the potential for wastewater bioenergy production; from the effects of ice-plants on dune restoration to the role of bundle sheath extensions in stomatal responses of leaves. So come on up, take a walk on the wild side, the Biology side, of Darwin: be amazed!

## CS Student Research

Computer Science student Stephanie Schmidt was selected to present her research project, "Modeling the Power Consumption of Computer Systems with Graphics Processing Units (GPUs)" at the international ACM Student Research Competition in Raleigh, North Carolina in March 2012. Funded by a Computing Research Association grant, Stephanie worked on this project for a year in Dr. Suzanne Rivoire's lab and mentored a high school intern through SST's Student High School Internship Program. Her work could help improve the energy efficiency of computer systems that use graphics processors.



## SSU Mobile App Launched

A team of students from the Computer Science Department, led by Professor Ali Kooshesh, have created an iPhone app with features including campus maps, directories, calendars, news, KSUN radio and student email access. This handy app is available from the iTunes Store.

## ES Student Presentations

Scott Parmley's abstract, "Low-Cost Detection of Intra-Fraction Motion in Patients Undergoing Radiation Treatment," was accepted for presentation during the 24th Annual CSU Biotechnology Symposium (January 5-7, 2012, Santa Clara). Scott, an undergraduate Electrical Engineering major, conducted this research under the direction of Dr. Farid Farahmand in the summer of 2011. The research was funded by a grant from Austin Cancer Center awarded to Dr. Farahmand. This is the first time an undergraduate student from the Engineering Science Department will be participating in this conference.

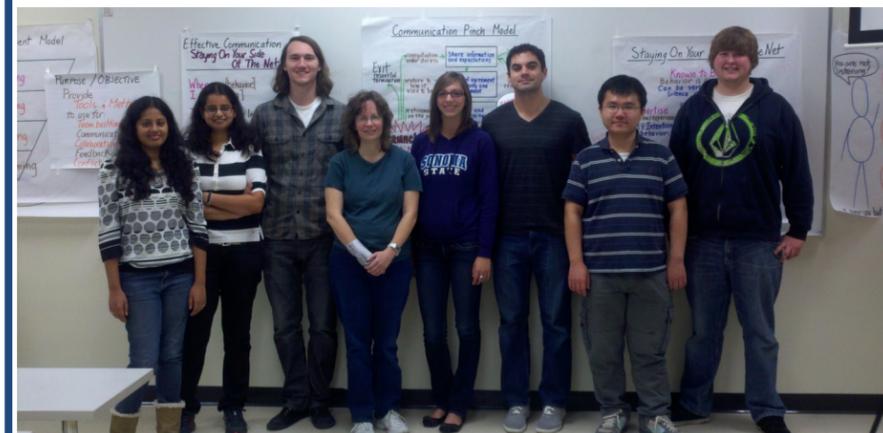


Scott Parmley

The abstract submitted by Swathi Matsa and Harika Kuppuru to the American Society of Engineering Education (ASEE) has been accepted for presentation in the 2012 ASEE Annual Conference and Exposition. This work, entitled "Designing a Remotely Accessible Optical Networking Laboratory", was performed under the direction of Dr. Farid Farahmand during Fall 2011. The conference will be taking place in Houston TX, in June of 2012. ASEE is the largest and most diverse engineering education society in the United States.

## Workshop Offered by ES Department

For the first time, on November 3, 2011, the Department of Engineering Science offered a workshop on Effective Communication for Working in Teams. This workshop, which was conducted by a graduate student from the Organization Development program, highlighted team work, collaboration, conflict resolution and



peer feedback. Eight engineering students participated in the workshop. This workshop was designed to help the students to understand the importance of effective communication and teamwork in industry and academia, while preparing them for their Senior Design Project! All participants received an official Certificate of Accomplishment.

## Chemistry Students Admitted to Ph.D. Programs

Five soon-to-be chemistry graduates have been accepted to doctoral programs in chemistry, biochemistry, or chemical biology. Congratulations to Jenna Bernard (UC Berkeley), Samantha Carrington (UC Santa Cruz), Tyler Chavez (Johns Hopkins), Chris Bianco (Johns Hopkins) and Frankie Gonzales (UC San Diego).

## 100% Nursing DEMSN Graduates Pass National Exam

The 2011 Direct Entry Masters of Science in Nursing (DEMSN) class had a 100% pass rate on the national Clinical Nurse Leader (CNL) Certification Exam. This is a significant achievement and showcases the high-caliber of our Nursing Department. See the CNL Wall of Fame posting on the American Association of Colleges of Nursing website ([www.aacn.nche.edu/cnl/cnl-certification/wall-of-fame](http://www.aacn.nche.edu/cnl/cnl-certification/wall-of-fame)).

## Scholarship Renamed to Honor Professor Duncan Poland

To ensure his legacy will live on for generations to come, the Department of Physics and Astronomy has renamed its scholarship fund to honor Professor Duncan E. Poland, who passed away July 19, 2011 at the age of 77. Professor Poland was a founding member of the department, who served as chair for many years. During his 36 years at SSU, Professor Poland was also a university vice president, the chair of the Natural Sciences division, and the head of the faculty union. He was a well-loved and integral part of the SSU community, and his contributions went far beyond the classroom, touching every aspect of campus life and having a tremendous impact on thousands of students. A brick honoring his accomplishments has also been placed in the Alumni Grove on campus. Donations in Professor Poland's memory may be made to the Duncan E. Poland Physics & Astronomy Scholarship Fund, E0231.



## Matt James to give "Peter Leveque Natural History Lecture" on April 6, 2012

Geology Professor, Matt James has been invited to give the 2012 "Peter Leveque Natural History Lecture" at Santa Rosa Junior College on Friday, April 6, 2012 at 7:00 p.m. This lecture, named in honor of Emeritus Professor of Biology Peter Leveque, is given once a year and is free and open to the public. The invitation to give the lecture comes with an honorarium and dinner. The title of James' talk is *Collecting Evolution: The Unintended Vindication of Charles Darwin by the 1905-06 Galápagos Expedition of the California Academy of Sciences*.

### Description of Talk:

For 17 months, from June 1905 to November 1906, the California Academy of Sciences in San Francisco sent out an expedition of "eight young men" as sailor-scientists on the 89-foot schooner Academy to collect specimens in the Galápagos Islands. Each of the collectors had a scientific specialty: birds, reptiles, plants, insects, fossils, rocks, mammals, and seashells. In total, they collected some 75,000 specimens, all still housed in San Francisco at the California Academy of Sciences. The enduring legacy of the 1905-06 expedition encompasses much of what we know about Galápagos today, including: plant distribution, giant tortoise taxonomy and David Lack's concept of Darwin's Finches, which have become the textbook example of evolution in "Darwin's living outdoor laboratory of evolution."

## Geek Week Makes Its Debut

Thanks to the support of the math and science clubs at Sonoma State University, Geeks unite! Geek Week made its debut in 2011, and the event was so successful that it will surely become an annual event at SSU. The week consisted of tabling by each club, playing games and fundraising.

Aside from having fun and promoting clubs, the goal of Geek Week is to win the Darwin Cup. The name of the winning club is engraved on the Official Darwin Cup Trophy and is kept in that club's display case until the next Geek Week winner prevails.

Congratulations to the Electrical Engineering Club – 2011 Darwin Cup winners!



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