Opportunities

One of the most important things about coming to a university, particularly a land-grant university, is the exciting range of opportunities offered. College is so much more than a collection of classes that combine to make up a major. It is a time to grow and explore. The people you meet and your extracurricular activities can help define the path for the rest of your life. How many of us still remember the answers to the midterm exam of chemistry 1025? But how can we ever forget the road trip we took with the entomology club to bring the world of insects to a local high school, or the visit to Auburn to discuss the situation in Haiti and engage in a coffee-selling competition?

The more than 5,000 College of Agricultural and Life Sciences students enrolled today have the opportunity to study abroad, engage in research, take classes on almost any topic imaginable, hone their leadership skills or join a number of student clubs – to name just a few of the possibilities. There are opportunities to learn, to grow, to make friends and to meet world-class researchers. Academically, CALS students can choose from among 21 undergraduate majors and 23 graduate programs.

Personally, students have the chance to meet people from more than 88 countries, 47 states and Washington D.C. CALS is truly a place where anything can happen.

In this issue, we highlight some of the many opportunities available. We have new majors in the works, including the recently launched plant science major. The Agronomy-Soils Club and local gardeners are hard at work in the Student Agricultural Gardens, and the Entomology Club continues its excellent outreach work. We make note of new distance education courses, internships in Alaska and finally, opportunities to do research in the Everglades. Clearly, CALS is a very special place with a lot going on, and we hope you will enjoy reading about all the opportunities available here. I also invite you to come visit, get involved and create your own opportunities...

Go Gators!

Teresa Baier
Dean
Insects Play a Leading Role in Outreach Efforts

BY CARISSA DRIGGERS

The department of entomology and nematology uses interactive outreach tactics and participates in large and small events to inform prospective students about what the department offers. In 2010, 76,663 students visited and interacted with the entomology and nematology booths at events, said Rebecca Baldwin, assistant professor in the department. Each time an outreach volunteer checks out materials, they document information about the event, as well as the number of attendees. Those numbers are calculated at the end of each year. In addition, organizers of large events give the entomology and nematology outreach volunteers information on how many people visit their area, and the department can also track how many contacts they reach by how many stickers they give out.

"We always get tremendous feedback on our booths," Baldwin said. Charlotte Emerson, director of student development and recruitment for the CALS, said the entomology and nematology department is one others could model their outreach program efforts after. "The entomology and nematology department does a phenomenal job engaging prospective students," Emerson said. "Their interactive displays, live specimens and the club members’ enthusiasm for the department are what draws students to the major." Enrollment in the department has increased from 28 students in 2006 to 47 students in 2011, Emerson said.

Dale Halbritter, graduate student and the department’s outreach coordinator, said the department brings live insects to outreach events to grab student’s attention and to address the misunderstandings about insects and arthropods.

"Many people see us handling what they think are dangerous and repulsive creatures, but are naturally drawn closer by curiosity," Halbritter said. "After assuring them that the sweet Madagascar hissing cockroach is not dangerous, many people reluctantly bring themselves to pet one and leave with a new outlook on insects."

Alyssa Porter, president of the Entomology Club said her role in the program is to act as a liaison between the outreach coordinator and the members of the Entomology Club. Porter said the program has been able to reach a large number of people at various venues including schools, the Florida Museum of Natural History and the Florida State Fair. Club members always try to help at departmental outreach events when they can.

"Both our club and the department are solicited for outreach events as well as our department, allowing us to be very well represented," Porter said. "Getting the word out about entomology has always been our goal, and I believe we are definitely on the right track."

Baldwin said that each event is successful because many students are reached and informed about the department. The outreach program also spends a lot of time focusing on youth through IFAS Extension programs, such as 4-H Youth Development.

"The outreach program has many events with elementary and middle school-aged children," Baldwin said. "Sometimes we go to the schools to speak to classrooms and other times we host bug day camps."

Baldwin said in summer 2010 the department hosted its first weeklong summer camp for middle school-aged children. "We chose this education method due to our circumstances, but I am sure my classmates will agree that we students like any other at UF," Sosa said. "When you are a Gator, you take that with you everywhere."

Students complete the majority of their classwork online, but they also complete required lab work and attend proctored exams for all courses at Miami-Dade College or the Indian River Research and Education Center in Ft. Pierce, Fla.

Microbiology and Cell Science Distance Program Now Offered in Miami

BY LAURA KUBITZ

Students from the Miami-Dade area no longer have to set foot on the University of Florida campus to earn a bachelor’s degree in microbiology and cell science. In the fall of 2011, a new distance education program began within the College of Agricultural and Life Sciences to reach students in the Miami-Dade area who want to get a degree from UF, but cannot leave the region because of other responsibilities.

Annelys Sosa was born in Havana, Cuba, but has lived in Miami since she was 7 years old. When Sosa graduated from high school, both of her parents were laid off from their jobs, and she felt the need to take on the role of head of household. Sosa transferred to Florida International University and began working two jobs, but it became difficult for her to balance school with other responsibilities.

Now Sosa is a junior in the program. Most of the courses are offered online so she can perform her other daily tasks at work without the stress of being late for class or missing a lecture because she has to work late on a specific day.

"I am able to watch the online lectures as often as I like and according to my busy schedule," Sosa said. “I can even upload the lectures onto my MP3 player and listen to them while I jog."

Students complete the majority of their classwork online, but they also complete required lab work and attend proctored exams for all courses at Miami-Dade College or the Indian River Research and Education Center in Ft. Pierce, Fla.
Michelle Amit conducts research in a lab in McCarty Hall on the University of Florida campus.

By Laura Kubitz

Michelle Amit is a pre-med sophomore majoring in microbiology and cell science from Ft. Lauderdale, Fla. In the summer of 2011, she helped conduct research analyzing bacteria and how the bacteria produce methane. Soil samples were gathered from an area in the Everglades where amanita, a mushroom that grows in wet soil, are found. Amit's research was shipped from the Everglades to the UF campus in Gainesville, Fla., where Amit conducts her research.

Michelle has been working closely with Dr. Hee-Sung Bae, a post-doctoral research associate, on this project, "Our interest is in how the bacteria and different concentrations of nutrients, particularly phosphorus and sulfate, impact the soil bacteria that produce methane. Methane is a greenhouse gas that is 25 times more potent than CO2, and has been implicated in climate change," said Andrew Ogram, the professor in the soil and water sciences department who hired Amit. The soil samples were shipped from the Everglades to the UF campus in Gainesville, Fla., where Amit conducts her research. Amit continues to help with the research, volunteering about three days a week in the lab.

"Michelle has been working closely with Dr. Hee-Sung Bae, a post-doctoral research associate, on this project," Ogram said. "Dr. Bae found very quickly that Michelle is one of the most intelligent and careful scientists he has worked with, regardless of age or degree of education."

While conducting the research, Amit has to be extremely careful with the soil samples. The bacteria she is studying are anaerobic, meaning they cannot be exposed to oxygen. She must follow precise procedures so the samples do not become contaminated.

"You have to be so careful with the bacteria," Amit said. "The bacteria are contained in an anaerobic chamber and are handled with gloves. The bacteria were basically kept in a big bubble.

The ability to pay close attention to details and instruction will help Amit with her future career goals. She hopes to get accepted into the Junior Honors Medical Program, a combined seven year baccalaureate and medical doctor degree program to become an anesthesiologist.

"Conducting research in the Everglades is pretty important," Amit said. "I find a lot of things down there that you can't find anywhere else.

For Brittany Burtner, her days consist of watching beautiful sunsets, spotting exotic birds and being high in the marshy water. Burtner is an interdisciplinary ecology graduate student in the School of Natural Resources and Environment studying the interactions and relationship between wading birds and alligators in the Everglades.

"It was stunningly beautiful every morning," Burtner said. "You see so many birds all the time. It never got old. There was always something really cool to see."

Ecologists observed that wading birds have a tendency to build their nests in areas inhabited by alligators. Burtner has spent the last two years in the Everglades trying to determine why this happens or if it was even happening at all. No empirical data had ever been gathered on the topic.

To conduct her experiment, Burtner built 200 foam alligators and placed them in locations outside the Everglades National Park similar in landscape, to try to attract wading birds to build nests. She focused her research on the tri-colored heron, the little blue heron and the snowy egret.

She determined the places to put the foam alligators by taking a flight over her research area. While in the air, she used data collected by her adviser, Peter Fredericks, a research professor in the department of wildlife, ecology and conservation, to see where small wading bird’s nests had been made during the last 16 years. When she identified a potential nesting site that wasn’t already documented, she made note of the location. Burtner then took an airboat out to these locations to confirm if they were appropriate for her experiments.

She determined that there is a mutualistic relationship between the nesting birds and alligators. The surrounding water and alligators help to protect the nests from predators, such as raccoons. Also, alligators can eat anything that falls out of the nests, such as the young birds, eggs or food brought to the young by the adult birds.

"The logistics of working in the Everglades are expensive and complicated," Burtner said. “One of the best things I have learned from my research is how to take a research question and turn it into a project that is feasible with time and money. It is sometimes difficult to get from point A to point B in research. You have to be efficient and realistic in what you can do.”

Students Find a New Major Within CALS

By Laura Kubitz

Are you interested in a career that helps people and promotes a sustainable future? The plant science major within the College of Agricultural and Life Sciences was revised to offer students a more diverse choice of specializations. The degree is a collaborative effort between the departments of agronomy, environmental horticulture and plant pathology.

"Faculty from the departments involved in the major spent considerable time thinking about future career opportunities within plant sciences and the skills that are a part of the major to help address future challenges," said Rose Koenig, undergraduate coordinator and lecturer in the agronomy department. "We surveyed students at UF and found that they are interested in making significant contributions to improve the quality of life for others and help change the world. We developed our areas of specialization to help students reach these goals."

Students can earn a B.S. or B.A. degree depending upon their specialization and can choose from eight areas of specialization.

• Crop ecology: apply ecological and basic science principles to the design and study of sustainable cropping systems and agricultural ecosystem function.

• Environmental horticulture: understand the scientific principles of turf and ornamental plant production and develop business knowledge and management skills.

• Plant genetics: learn how to use genetic tools and create plants with characteristics beneficial to the environment and society.

• Plant health: pursue a career related to plant health management in the public or private sector.

• Restoration horticulture: apply horticultural-based knowledge to the establishment, management and protection of plant communities.

Alisha Strampello, a plant science senior with a concentration in crop ecology, chose her specialization because she wants to help stabilize food production throughout the world.
Changes Enhance Opportunities for Student Agricultural Gardens

BY LAURA KUBITZ

Every day around dusk, as the sun settles on the horizon and brilliant colors dominate the sky, bats take flight out of their houses on the University of Florida campus, providing on-lookers a spectacular show. Adjacent to the bat houses are the Student Agricultural Gardens providing undated gifts, such as a place for students to grow fresh produce, a way to educate the public about food production and a sanctuary from hectic college life.

Recent changes to the Student Agricultural Gardens, such as how the gardens are managed and funded and the role of the Agronomy-Soils Club, are allowing gardeners and club members to maximize the functionality of the area.

“It is a transformation in regards to the resources available and oversight,” said Mark Clark, associate professor in the soil and water science department and one of the faculty advisors for the gardens. “It is a work in progress but definitely a dramatic improvement already.”

One of the recent changes to the Student Agricultural Gardens is the involvement and influence of the Office of Sustainability. They see the gardens as a high-profile area that can be used to educate students and the public about where their food comes from and to communicate the importance of local foods, Clark said.

Anastasia Vaccaro, a plant science junior from St. Augustine, Fla. and an officer in the Agronomy-Soils Club, is the current garden intern and the first student to fill the internship position. Her job is to keep track of who rents the plots of land, deal with issues that arise in the gardens and act as the liaison between gardeners, the Office of Sustainability and the Agronomy-Soils Club.

Each week, Vaccaro attends meetings for Office of Sustainability internships and they provide her advice and guidance on potential projects for the gardens.

“It is like being the mayor of a small town,” Vaccaro said.

Gardeners choose from two sizes of plots. Small plots are 12 feet by 20 feet and cost $30 for the year, while larger plots are 20 feet by 24 feet and cost $35 for the year. New gardeners also pay a $10 deposit.

If the Agronomy-Soils Club has to clean up a plot at the end of the growing season in preparation for next year’s rental, the deposit goes to the club for their work to get the plot ready.

Funding to support the gardens comes from plot rental fees and a line item in the Agricultural Life Sciences College Council budget. Garden funds are used to purchase tools, hoses, mulch and seed as well as to maintain and purchase new equipment.

Recently, the club planted a strip of land in the gardens, not meant for rented plots, to grow string beans and turnips. The club hopes the area will be ready for harvest by Thanksgiving, and the club plans to donate the crop to a local homeless shelter for the holidays.

During the summer, the club plans to donate butterflies and pollinators, which will help the gardens’ crops flourish.

Vaccaro hopes to be able to attract bat spectators into the gardens while they wait for the bats to emerge and have walk-through tours to help educate them about local food systems and sustainable food production.

“The bat houses are a high-profile area, and we hope to use that to our advantage and show people what we are doing out here,” Vaccaro said.

During her internship, Rinaldi had a variety of responsibilities. For half the week, she worked in the interpretation department of the center. Instead of writing descriptions of the exhibits, Rinaldi provided one-on-one interaction with the guests, answering any questions and giving additional information about the animals at the center. She also gave behind-the-scenes tours of the facility and a daily 20-minute presentation of the research conducted at the center.

When students begin their tenure at UF, some have every class of every semester planned out, while others need more time to find their passions. For Alicia Rinaldi and John-Walt Boatright, internships in places far from home helped them decide their ideal career path.

Alicia Rinaldi, an environmental science senior from Orlando, Fla., was offered an internship at the Alaska Seaf-life Center in Seward, Alaska. The Alaska Seaf-life Center is a public education tool, research facility and marine rehabilitation center for animals such as puffins and seals.

“This internship has shifted my career focus to marine science,” Rinaldi said. “I have always been interested in marine science, but this showed me there are places to work with and educate the public in a natural setting, instead of in places like Sea World, which being from Orlando, is what I grew up knowing.”

Rinaldi also worked on a tour boat that cruised through Kenai Fjords National Park, where she acted as the park ranger’s assistant. If people had questions about geology or the animals they saw on the tour, she provided answers.

“I get to see whales every single day on the tour boat,” Rinaldi said. “It was a dream come true for me.”

Rinaldi also worked with the Junior Ranger program helping kids fill out a passport and taught them about the environment and animals on the tour.

“I went there not knowing anyone,” Rinaldi said. “It was self-enriching and career-enriching. It is definitely important to step out of things you are comfortable with and experience something different.”

John-Walt Boatright is a food and resources management junior from the coast. During John-Walt’s internship, he had a variety of responsibilities, from helping with U.S. Congressman Steve Southerland, who worked on the Conservancy and the Department of Agriculture.

During John-Walt Boatright’s internship with U.S. Senator Steve Southerland, he participated in the intern lecture series, where speakers such as Colin Powell and justices of the Supreme Court spoke with other congressional interns.

“I considered the internship an investment in my future career,” Boatright said. “I probably gave around five tours.”

All congressional internships are unpaid, Boatright said. To help offset the cost of living in Washington, D.C., Boatright received financial assistance from the Loop Legislative Internship Program, established by the Florida Farm Bureau Federation to help full-time CALS students who are completing legislative internships.

“I grew up knowing.”
10-11 CALS Scholarship and Leadership Awards

Jack L. Fry Award for Teaching Excellence by a Graduate Student

Catherine "Kate" Shoulders is a doctoral student in the department of agricultural education and communication. She earned a B.S. degree in agricultural education, a M.S. in agriculture education and a M.A. in administration from Murray State University. Before arriving at UF, she taught high school agricultural education. Shoulders’ evaluations as a teaching assistant are above the college average and near the top of faculty and graduate students in the AEC department. As stated in her nomination letter, "Kate will complete our Ph.D. program as one of the top new faculty candidates in our discipline, ready to execute her teaching assignments in a superb manner." graduate Teacher/Adviser of the Year

Emilio Bruna is an associate professor with joint appointments in the wildlife ecology and conservation department and the Center for Latin American Studies. He holds a B.S. in ecology, behavior and evolution  and a M.S. in biology from the University of California, Davis. Bruna strives to make teaching an active process by facilitating small-group discussions and in-class debates and requiring students to complete unique group projects. Bruna has imparted more than 40 graduate students in multiple programs and colleges. For his international students, he strives to become their local family to help with the difficult transition.

Undergraduate Adviser of the Year

Miranda Mae Kiggins has a B.S. in forest resources and conservation and was hired as the academic services coordinator for the School of Forest Resources and Conservation. She was the primary adviser for 190 undergraduates enrolled in forest resources and conservation, geomatics and natural resource conservation. Claire Williams of the wildlife ecology and conservation department wrote, "By infusing her advising role with her passion for natural resource conservation, she makes a positive, daily impact on so many students." Kiggins approached her position with energy, a positive attitude and a constant desire to increase her knowledge base. Since receiving this award, Kiggins has moved to Arkansas.

Undergraduate Teacher of the Year

Michael Gunderson is an assistant professor in the food and resource economics department. He holds a B.S. in agricultural business, farm and financial management from the University of Illinois and M.S. and Ph.D. degrees in agricultural economics from Cornell University and Purdue University, respectively. Gunderson strives to inspire curiosity and develop students’ critical thinking and problem solving skills. His students describe him as a “natural educator,” and that he has “brought renewed enthusiasm to the instructional program in agrisciences.”

Undergraduate Teacher of the Year

Ricky Telg, professor, has been teaching in the department of agricultural education and communication since 1995. He spearheaded the merger of the specializations in agricultural communication and leadership education, areas agricultural industry representatives say they are looking for in new employees. Telg is a self-appointed life-long learner, bringing his students the most up-to-date technology in the industry. His students see him as a caring and knowledgeable mentor, counselor, career adviser, as well as their surrogate father. He is impeccably prepared for each class and strives to include students in the learning process through hands-on methods. Ed Osborne, agricultural education and communication chair, describes Telg as a “superb teacher, and a highly dedicated and innovative curriculum leader.”

2010-2011 CALS Scholarship and Leadership Awards

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E.T. York, Jr. Medal of Excellence Outstanding Junior Award Recipient

Shannon TenBroeck is an associate professor and extension equine specialist in the department of animal sciences. She regularly advises more than 200 undergraduate students from both the equine option and animal biology specialization. She is also adviser to the Block and Bridle Club, Horse Judging Team and Gator Collegiate Cattlewomen. TenBroeck’s extension assignment provides excellent industry contacts that lead to internship opportunities for students. By knowing and understanding her students, TenBroeck strives to direct them on a path to success. Joel McQuaig, an associate instructor in animal sciences, wrote that she “combines work ethic with a compassionate, caring personality to give our students their best chance at success.”

Alumni and Friends Leadership Award Recipient

Andrew Barbour, a Virginia native, is a Ph.D. student in the fisheries and aquatic sciences department. He is pursuing a master’s degree in the same department with a specialization in agricultural education. He has extensive leadership experience, including serving as a CALS Ambassador, president of Collegiate FFA and secretary and treasurer of Collegiate Farm Bureau. Ed Osborne, agricultural education and communication chair, said, “He epitomizes the role of a student ambassador—knowledgeable, intelligent, personable, outgoing, positive, professional and eager to tell others about CALS.”

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Cory Pollard, from Lakeland Fla., is a senior in animal science and human nutrition student, with a minor in philosophy. He is vice president for nutritional sciences in the Food Science and Human Nutrition Club and is also active in the Florida Swing Dancing Club and Global Medical Training, where he serves as the trip coordinator for a medical services trip to Nicaragua. Pollard has conducted research with Susan Pericull, a professor in the food science and human nutrition department, in whose lab he developed new laboratory protocols and investigated the effects of several dietary bioactive compounds.
For more information on CALS, visit our website at cals.ufl.edu

Students spell out “Gators” using their headlamps and flashlights during an overnight field trip that was part of a forest ecology course offered in the School of Forest Resources and Conservation in CALS. (Photo by: David R. Godwin)