



contents

We Are Growing!	2
The New Water Science Track	2
Pre-Professional Tracks in Law & Health-Related Professions	3
Environmental Management Off-Campus Undergraduate Courses	4
The World of Water is Making a Splash	5
Agriculture & Environmental Quality	5
Land and Life	5
Drs. Graetz & Ou Retirement	6
Faculty, Staff, & Student News	7
From Our Former Students	8

EDITORS:
Susan Curry
scurry@ufl.edu

Dr. Vimala Nair
vdn@ufl.edu

UF UNIVERSITY of
FLORIDA
IFAS

<http://soils.ifas.ufl.edu>



Undergraduate Programs

From the Chair...

The Soil and Water Science Department (SWSD) launched a major effort to improve enrollment in our undergraduate programs via 1) broadening appeal for non-traditional students, 2) curriculum review, 3) faculty retreat to discuss current undergraduate programs, and 4) by improving outreach activities to promote programs. At present, we offer a major in Soil and Water Science (SWS) and an interdisciplinary undergraduate major in Environmental Management in Agriculture and Natural Resources (EMANR). The EMANR major is offered in Gainesville and at the Indian River Research and Education Center (IRREC), and we are exploring opportunities to offer this program at other locations. As part of current degree in SWS, we plan to offer two specializations: *Soil Science* and *Water Science*. In addition, we see opportunities to offer our programs to students interested in pre-professional programs in law and health-related professions. Non-traditional students are beginning to see the value of our undergraduate programs. This is reflected in large enrollment in two of our general education courses:

SOS 3022, Soils in the Environment, and SOS 2007, The World of Water. Current enrollment in these courses is approximately 150 students per course per offering and we expect enrollment to

increase in the future. To complement these courses, we are in the process of offering another general education course entitled "Land and Life" which deals with issues related to land use and degradation, and fundamentals related to soils and the environment. We hope to use these three courses to help promote our undergraduate programs. Our undergraduate coordinators are planning to spend some of their time visiting community colleges in the region, and we have redesigned our web site to showcase our undergraduate programs. We hope our new efforts will result in an increase in undergraduate enrollment as well as general enrollment in our courses.

2007-08 has been a difficult year for UF-IFAS and for the department, with major budget cuts. The result has been a significant reduction in state-funded positions. These are challenging times for all of us and the department must find cost-effective ways to maintain teaching, research and extension programs. We will be going through some tough times in the next few years, but in spite of budget limitations, we are committed to maintaining excellence in our programs by redirecting and conserving our resources. To meet these challenges, we need the support and help of our emeritus faculty, alumni, friends, and our clientele.

We are Growing!

Recently, the value of majoring in SWS is becoming more apparent to UF undergraduate students. We now have 15 majors and several minors. This Spring semester nine students joined us by transferring from various community colleges in Florida. During April, five students already at UF decided to change majors. Of the students who transferred from on campus, three came from the College of Liberal Arts and Sciences and two from within the College of Agricultural and Life Sciences (CALs). One of the students is pre-med while another is interested in going to dental school. Several are attracted to the Combined Degree program we offer. In this program an undergraduate can take classes which will apply towards their Bachelor of Science as well as their Master's degree.



Recent recruiting has included the Gator Encounter which takes place at the end of Spring semester. Several hundred students, parents, advisors, and teachers from high schools and two-year colleges across the state were in attendance. Our Undergraduate Coordinator, Mary Collins, spoke with about 50 individuals telling them about the major and opportunities for employment. She also spent an afternoon at Santa Fe Community College in Gainesville recruiting with Charlotte Emerson, CALs Director of Student Development and Recruiting.



We are in the process of developing the following tracks/specializations: *Soil Science*, *Water Science*, *Pre-Professional*. Also, students can work towards a minor in Education in the College of Education. After completion of the requirements, the students will be given a temporary Florida teaching certification. This will allow the student to teach high school science and to be eligible to obtain permanent teaching certification.

What does the future hold? Depending on the number of transfer students UF will allow, we could increase our number to 20 this Fall semester. So the good news is - we are growing! For further information, contact Mary Collins at mec@ufl.edu.

Introducing a New Track in Water Science



In response to the Cooperative State Research, Education, Extension Service (CSREES) review in 2007, a plan was initiated to provide a broader and potentially more attractive range of opportunities for prospective undergraduate majors in the SWSD. Beginning in the Fall of 2008, the department will offer two new academic tracks in addition to the traditional Soil Science track: a *Water Science* track and a *Pre-Professional* track. The objectives are to expand undergraduate enrollment in the SWS major and to provide students with greater specialization in their coursework to suit their professional goals.

The *Water Science* track will highlight courses within the SWSD and other disciplines on campus that emphasize water, water quality, and public health. Students will work closely with the undergraduate advisor to design a course of study in preparation for careers related to water science or for subsequent graduate studies. The relevant

curricula are currently being developed for approval by SWS faculty, and will include coursework related to water chemistry, hydrology, ecology, and policy. Enrollment in the SWS major has been low for several years, and it is expected that these measures may provide attractive alternatives to prospective students and increase the visibility of the SWSD as a whole throughout the university community. For further information, contact James Bonczek at bonczek@ufl.edu.

Pre-professional Programs in Law and Health-Related Professions



The SWSD is pleased to announce the development of pre-professional programs for undergraduate students interested in further studies in law or one of the health-related professions. As environmental quality becomes of greater concern to Florida and the rest of the country, legal issues regarding land use and environmental quality are becoming more common. The law pre-professional emphasis is intended for students interested in agriculture or environmental law, and will prepare them for entry into law school. Students will obtain a BS in SWS and a minor in Agricultural Law. Electives include courses in various departments, with a focus on legal and cultural implications of environmental science. Students will obtain a firm scientific background from which to approach environmental and agricultural law.

The newly developed pre-professional emphasis in health-related professions is geared to preparing undergraduates with an interest in environmental science for entry into medical, dental, and veterinary schools. Other health-related programs, including pre-optometry and pre-pharmacy, can also be accommodated. The student will obtain a BS in SWS, and individual electives are designed to provide the background recommended for the ultimate goal of the individual student. The student will take courses intended to provide the strong background in basic sciences, including chemistry, physics and biology, recommended for each of these programs. For more information, contact Andy Ogram at aogram@ufl.edu.

Interdisciplinary Studies Degree Environmental Management *in Agriculture and Natural Resources*



The Environmental Management in Agriculture and Natural Resources (EMANR) major is an Interdisciplinary Studies major in the College of Agricultural and Life Sciences. EMANR provides the scientific and technical foundation needed to integrate and communicate the diverse environmental issues associated with urban, agricultural, and natural ecosystems. Courses are selected from several disciplines to provide a science-based perspective on issues dealing with the management and protection of our natural resources. Environmental management encourages the best use of our natural resources for their social and economic benefits while protecting associated resource values, property rights and the environment. By combining specialized courses with general introductions to environmental policy and law, students gain an understanding of the difficulties involved in combining economics and environmental stewardship.

Currently there are 10 students in the EMANR program, two of whom graduated in the Spring semester. Several of our students are distance education (DE) students through the IRREC. The flexibility of the EMANR major fits this program well. Plans to expand the DE program to Gulf Coast REC in Plant City are underway.

The Bureau of Labor Statistics predicts that job opportunities for environmental managers and environmental technology specialists will expand over the next decade. With concerns mounting over pollution, global warming, and corporate responsibility, businesses and government agencies have started to aggressively compete to hire the best environmental management graduates. Employment opportunities are widespread and include positions with environmental and agricultural consulting companies, agricultural producers, agribusiness operations, governmental agencies such as the Water Management Districts and the U.S. Department of Agriculture, utility companies, and the legal profession. For more information contact Susan Curry at scurry@ufl.edu.

Off-Campus Undergraduate Courses



Zhenli He from the IRREC with students on a field trip.

Off-campus undergraduate classes in SWS are offered either through videoconferencing, the internet or both. SOS 3022, Introduction to Soil Science in the Environment, and SOS 4116, Environmental Nutrient Management, are offered through internet and Polycom videoconferencing to various UF Research and Education Centers including FLREC (Ft. Lauderdale), IRREC (Ft. Pierce), MREC (Apopka), GREC (Baum and Plant City), and West Florida REC (Milton). ALS3133, Agriculture and Environmental Quality, is also offered through the internet. These classes are offered in support of state wide CALS programs at the REC centers such as Turf Grass Science, Environmental Horticulture, Agricultural

Education, Environmental Management, and Natural Resource Conservation. The students have access to various interactive tools (e.g. email, bulletin board and chat rooms). Both the videoconference lecture and website allow for strong interactions and communications between the instructor and students and among students themselves. These tools make the class materials easily accessible and greatly facilitate the learning experience. The laboratory portion of SOS 3022 class is offered live at all participating centers with SWS faculty teaching the lab. Students get hands on experience in the lab as well as in the field. A field trip in soil classification is done every year in the Ft Pierce area.



Soil classification field trip in IRREC, Ft Pierce.
Shown: Amy Shober who teaches lab in Plant City



Samira Daroub with students participating in the soil classification field trip at the IRREC

The offering of soil and water science classes through the DE program has allowed the expansion of the teaching programs in these off-campus locations, for example the recent establishment of the teaching programs in Plant City and the Environmental Nutrient Management program in Ft. Pierce. It also allowed in-state and out-of-state students from NRCS and other agencies to take soils classes completely on line for their professional development. For more information contact, contact Samira Daroub at sdaroub@ufl.edu.

Join us at... The 9th Annual Soil and Water Science Research Forum

The 9th Annual Soil and Water Science Research Forum (<http://soils.ifas.ufl.edu/forum/>) is scheduled for **September 12, 2008**, in Gainesville, Florida. The forum is designed to bring together representatives from state and federal agencies as well as private industry, faculty, graduate students, and prospective students interested in soil and water science. The forum will provide an opportunity for all those interested in soil and water science to interact with our students, faculty, and administrators on campus.

This year, **Dr. Don Sparks**, S. Hallock du Pont Chair and Chairperson, Department of Plant and Soil Science, University of Delaware is the featured keynote speaker at the forum. We look forward to your participation in the forum. If you are planning to attend, please register at <http://soils.ifas.ufl.edu/forum/>. For additional information, contact Lena Ma at lqma@ufl.edu.

The World of Water is Making a Splash

General Education Course (SOS 2007)



The World of Water (SOS 2007) is a relatively new course that was created to expose a larger number of students throughout the university to the SWSD, and it appears to have been effective. Begun in the Spring of 2006 with only eight students, the class has grown quickly with 192 students pre-registered for the Fall 2008 semester. The course is intended to acquaint students with many of the essential roles of water in the environment. Topics range from the fundamental properties of water to the importance of water and water quality to society. Course topics also include water in oceans, lakes, rivers, soils, and the atmosphere as well as the importance of water in various physical and chemical processes in the environment.

This summer, the course will be offered as a DE course for the first time. There are also preliminary plans to offer a section of the course at Santa Fe Community College in hopes of increasing awareness of the opportunities in Soil and Water Science to prospective transfer students. For further information, contact James Bonczek at bonczek@ufl.edu.

Agriculture and Environmental Quality

General Education Course (ALS 3133)



Agriculture and Environmental Quality is a survey course which introduces the students to the integral role that agriculture and related industries play in environmental sustainability. The objective of this course is to acquaint students from agricultural as well as other disciplines with agricultural practices and their effect on environmental quality, and to

show how agricultural scientists are attempting to minimize agricultural pollution, while sustaining food production for the ever growing human population. Topics covered include organic wastes, nutrient management, land application of biosolids and wastewaters, pesticide management, wetlands, and energy production from organic wastes. This course is offered Spring and Summer semester (even years), satisfies a Biology General Education requirement and is an approved course for the Sustainability minor. For more information, contact Susan Curry at scurry@ufl.edu.



Land and Life

General Education Course (SOS 2008)

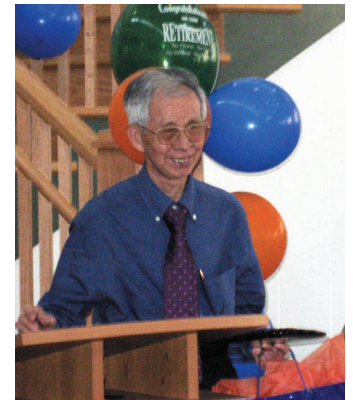
SOS 2008 Land and Life (formerly Soils, Humans, and Environmental Impact) is offered Summer B and Fall semesters, and satisfies a Biology General Education requirement and is included in the courses for the new Sustainability minor. SOS 2008 is intended for non-SWSD majors, and we introduce students to principles of ecosystem function and environmental issues related to soils. The course concentrates on fundamentals of soil and environmental science, and uses case studies to illustrate basic principles. The text book for course is *Collapse* by Jared Diamond, which illustrates how a lack of stewardship of the soil contributed to the failure of past societies and helped shape human history. The last part of the course is devoted to relating historical environmental problems to modern problems. For more information, contact Andy Ogram at aogram@ufl.edu, or visit <http://molecol.ifas.ufl.edu/SOS2008.htm>, which includes the course syllabus and schedule.



Retirement Reception for Dr. Graetz and Dr. Ou

Don Graetz and Li-Tse Ou retired in December 2007.

We wish both of them all the best during their retirement years.



Faculty, Staff, and Students

Nick Comerford accepted a new position as the Director of the NFREC, Quincy, FL. Nick has made major contributions to our discipline through teaching and research programs in Forest Soil Biogeochemistry. We wish Nick all the best in this new position. We also congratulate him on his new post as President-elect of the Soil Science Society of America.

Samira Daroub received the 2007/2008 CALS Graduate Teacher / Advisor of the year award during the CALS Scholarship and Leadership Awards banquet in April. She was also recognized at the CALS Spring graduation commencement.

Ann Wilkie received the Student Involvement Award for Student Organization Advisor of the Year, 2007-2008. She was recognized for her outstanding commitment to students and her tireless efforts as Advisor to the Bioenergy and Sustainable Technology Society. The award was presented at the Student Involvement Awards Ceremony held by the Center for Student Involvement and IDEAL at the Reitz Union on March 31, 2008.

Alan Wright was awarded the Editor's Citation for Excellence in Manuscript Review for the Agronomy Journal for 2007.

Caitlin Hicks received the 2007 IFAS Best

MS thesis award.

Zhenli He was awarded tenure with promotion to Associate Professor.

Yuncong Li was promoted to Full Professor.

Elizabeth Hodges Snyder (major advisor: George O'Connor) won the 1st Place award for Best Graduate Student Poster at the 2008 UF Water Institute Symposium.

Jared Sweat (third from left) joined us this semester in SWS. He works part-time as a field assistant for a consulting firm in Gainesville. Our students achieve a great deal while still at school.



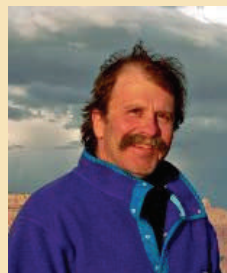
Hollie Hall was selected as a NSF-funded IGERT Fellow, to pursue her PhD in SWS.

Lisa Gardner, Jason Lessl, and Subodh Acharya were selected as Alumni Fellows to pursue their PhD degrees in SWS.

Congratulations and thanks go out to all faculty, staff, and students for their outstanding contributions to our discipline.

Carl Fitz—Ft. Lauderdale REC

Carl Fitz joined the SWSD in March 2007 as Assistant Professor of Landscape Ecology, and is based at the Ft. Lauderdale Research & Education Center. After receiving a BA in Environmental Sciences from the University of Virginia (1979), Carl became a research technician in the U.S. Virgin Islands, where he became interested in carbon exchanges among coral reef, seagrass and mangrove systems. Carl then attended the University of Georgia, where he received a PhD in Ecology (1990) after investigating blue crabs as a vector of carbon transport within and among salt marsh and estuarine systems. At the University of Maryland, he then started development of integrated biogeochemical and hydrologic models of habitat mosaics in the greater Everglades landscape. In 1996, Carl joined the South Florida Water Management District, where he was the team leader of a continuing effort to develop and refine the Everglades Landscape Model. Carl can be reached at cfitz@ufl.edu. Further information on his research and extension program is available at <http://ecolandmod.ifas.ufl.edu>.



Congratulations!

Spring 2008 Graduates

Bachelor of Science

Vincent Munne

Cheryl Dunne

Master of Science

J. Dwain Butler, Advisor:
Teplitzki

Cecilia Concha, Advisor: Clark
Julie Driscoll, Advisor: Graetz

Chris Duerkes, Advisor:
Jawitz

Hollie Hall, Advisor: Li
Italo Lenta, Advisor: Clark

Honor Roll

President's List

Rachel Vanlandingham

Dean's List

Drew McLean

Jared Sweat

Rachel Vanlandingham

Myakka

(pronounced 'my-yak-ah' - Seminole word for "big waters") gives a special identity to our department, as it is also the name of Florida's State Soil, Myakka fine sand. The State of Florida has the largest total acreage of Myakka fine sand (sandy, siliceous, hyperthermic Aeric Alaquod) on flatwood landscapes.

From our former students ...

Dr. Jagtar Bhatti

We are proud to note that one of our former PhD students, Dr. Jagtar Bhatti, was one of twenty-five NRCan scientists recognized for contributing to the Intergovernmental Panel on Climate Change (IPCC)'s 2007 Assessment. These scientists worked in conjunction with over 3,600 experts and authors from over 130 countries to produce the report, which was honored with the Nobel Peace Prize. Dr. Bhatti is currently with the Canadian Forest Service.

Padraic Mulroy

Padraic Mulroy graduated in 1996 with a MS from Dr. Ou's laboratory and is currently working at Mulroy Environmental 30 Lisroland View, Knockbridge, Dundalk, County Louth. Email: ptmulroy@eircom.net

Josh Boan

I am a Floridian. I always enjoyed the outdoors and just the Florida landscape in general. I spent many hours on the water and out in the woods. I transferred to UF from the US Air Force Academy with every intention of continuing on in Engineering. A friend of mine was majoring in Soil and Water Science and I became more interested in the "science" and "problem-solving" aspects of the SWS curriculum. It wasn't long before I switched to SWS. I spent time working as an assistant for Drs. Don Graetz and Vimala Nair until I graduated with majors in SWS and EMA.

For the past 10 years I have been working for the Florida Department of Transportation, in Tallahassee, as the State Wetland Scientist and Environmental Research Administrator. My duties have expanded over the years to include issues dealing with wildlife, stormwater, erosion control and intergovernmental relations. My time in SWS gave me a variety of course work that has benefited me in handling ever changing issues in transportation. Although I do not get down and dirty in the lab or in the field much anymore, my SWS experience has enabled me to be able to see issues from a different prospective than most all of my counterparts in the transportation field. This allows me to effectively plan and get out in front of most environmental issues.

I also farm full-time in Madison County. My SWS experience has really helped me to experiment and seek out solutions to farming challenges and to produce efficient, higher yields using fewer inputs.



Victoria Gardner

As a child I lived in Manhattan, KS. I was awarded a National Merit Scholarship, so I could study anywhere in the US. I decided to come to UF to major in pre-pharmacy. As a sophomore with most of the basic courses completed, I was looking for an interesting class to take. I decided to take the introductory soil science course, SOS 3022,

on a whim because it sounded fun and different; I had no idea that there was such a thing as soil science at all. I ended up really enjoying the class and lab, so much so that I decided to switch my major to Soil and Water Science. My undergraduate experience in the department was excellent because the classes were stimulating and there was a lot of personal interaction with the professors. Later on I took advantage of the 3-2 program, which allowed me to take graduate courses as an undergraduate and finish both my bachelor's and master's degrees in 5 years total. I received my BS degree in May, 2006 and graduated with my MS degree in May, 2007 in Environmental Pedology.

But what do soil and water science students do after graduation? With a few weeks to go until graduation, I met the then-State Conservationist of Florida, Niles Glasgow, at a meeting at UF about the undergraduate Soil and Water Science program. He wanted to see my resume, and so I eagerly ran down to my graduate student office to print one off. I later set up a job interview with him for a career intern soil scientist position with NRCS in Florida. He was happy to see that I had experience with field and lab work, GIS, and remote sensing.

I began working for the NRCS in Quincy, FL the month after graduation. Our team is currently working on updating the soil survey in Washington County. My main tools in the field are a truck, a few augers, a GPS unit, the field book for describing and sampling soils, a Munsell color book, a tablet PC and maps. This job also allows me to continually increase my knowledge base with formal training every year. I am glad that I was able to get the knowledge and experience at UF that helped me to succeed as a soil scientist. Go Gators!