



cmastcommunicator



MAY • 2015

Semester @ CMAST

Now accepting applications!

If you are an NC State undergraduate and would like more information about applying for the Semester @ CMAST program, please visit our website at cmast.ncsu.edu



We're on Facebook & Twitter!
www.facebook.com/ncsu.cmast
www.twitter.com/CMAS_T_NCSU

Semester @ CMAST Program Launched!

In Spring, 2016, a special class of undergraduates will be bound for the coast to participate in an intensive hands-on semester in marine science for the first Semester @ CMAST (S@C).

Twenty to twenty-five NC State undergraduate students will spend their 2016 spring semester as resident students at CMAST.

This maiden voyage of the Semester @ CMAST program is the first of a standing series of full semesters allowing students to get their feet wet and hands sandy alongside top professional researchers and graduate students, offering them unprecedented exposure to all facets of marine science. The S@C is the first-of-its-kind NC State commitment for a semester-long, academic coastal and marine program for a large class of undergraduate students.

Participating students will take a full academic semester at CMAST, earning 15 credit hours on NC

State courses to their academic programs.

NC State University's Center for Marine Sciences and Technology is uniquely positioned to host this

program. Located on Bogue Sound in Morehead City, the center supports exciting inter-disciplinary research and a rich educational experience in the marine sciences.

Programs include: (1) Aquatic Animal Health & Marine Mammal Stranding Network; (2) Marine Ecology & Conservation; (3) Estuarine & Coastal Fisheries; (4) Seafood Technology; (5) Marine Bio-Technology; and (6) K-12 STEM Marine Science Education.

These programs span three Colleges and six Departments at NC State, and cross-college cooperation occurs daily. The proximity of the CMAST facility in the "coastal research triangle" of marine science facilities in Carteret County encourages multi-institutional and cross-disciplinary research.

CMAST, UNC-Chapel Hill's Institute of Marine

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From the CMAST Director



A key part of NC State University's 2011-2020 Strategic Plan, The Pathway to the Future, is to enhance the success of our students through educational innovation, and foster synergisms between research and education. Three keys to getting students excited about learning are: (i) passionate and enthusiastic instruction, (ii) engaging students in experiential learning early, and (iii) keeping students engaged as they mature and navigate various educational systems. In this issue of the CMAST Communicator, we are excited to highlight educational innovation and excellence being conducted at CMAST at a variety of educational levels.

For example, The Science House @ CMAST hosts The Sea Wolves, a 4H Program for Middle and High School students interested in Environmental and Marine Sciences.

At the undergraduate level, 20-25 NC State undergraduate students will spend their Spring 2016 semester as resident students at CMAST taking classes not offered on main campus, and taught by local instructors that are active researchers and resource managers in the marine sciences. These undergraduate students will also have enhanced interactions with coastal education, research, and extension programs at other local universities, as well as state and federal agencies.

Continuing up the educational ladder, NC State College of Veterinary Medicine students completed an intensive course of clinical work and lectures at a week-long Advanced Fish Medicine Selective at CMAST during April 2015. The Fish Medicine Selective also provided clinical expertise for an estuarine fisheries research project on survival of American eels, which highlights the synergistic nature among the different disciplines at CMAST.

Lastly, we highlight numerous and highly competitive awards and fellowships that reflect excellence in teaching, research, and extension.

I invite you to view our Facebook and web-sites, follow CMAST on Twitter, visit our facility located on Bogue Sound in Morehead City, or contact any of our faculty, staff or students with questions.

With best wishes,

Dave Eggleston

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Semester @ CMAST, continued from p. 1

Sciences (IMS), Duke University Marine Lab, and the NOAA Beaufort Laboratory are located within five miles of each other.

Other nearby agencies and facilities such as the NC Division of Marine Fisheries in Morehead City, the NC Aquarium at Pine Knoll Shores, and the NC Maritime Museum in Beaufort provide additional opportunities for collaborative work and experiential learning.

Moreover, CMAST's coastal setting provides access to an incredibly diverse range of habitats and ecosystems, including small estuarine tidal creeks, large estuaries systems, dynamic barrier islands, coastal shelf and hard-bottom habitats,

CMAST Director Dr. David Eggleston is thrilled to launch with this innovative new program. "Two of the main goals of NC State University's Strategic Plan, entitled The Pathway to the Future 2011-2020, is to enhance the success of our students through educational innovation, and foster synergisms between research and education.

"I am excited that the Semester @ CMAST will meet both of these university goals by providing both a unique, coastal-related interdisciplinary courses that are not offered on main campus, and an enhanced interactions with coastal edu-



CMAST is part of the "research triangle" of marine science facilities, with UNC-IMS, Duke Marine Lab and NOAA labs nearby..

cation, research, and extension programs at other local universities, as well as state and federal agencies. These courses and enhanced interactions will ensure a rich undergraduate experience inside and outside of classes."



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NC State CVM students attend 2015 Fish Med Selective at CMAST

NC State College of Veterinary Medicine students completed an intensive course of clinical work and lectures at the week-long Advanced Fish Medicine Selective at CMAST this month.

The course was the first time the majority of these students had ever had hands-on clinical experience with marine life. Selectives are courses CVM students take to familiarize themselves with various areas of specialization of veterinary medicine.

A surgery and anesthesia lab allowed students to conduct surgery on a group of eels, all of which continue to do well in recovery. This lab was a collaborative effort with CMAST Ph.D student Paul Rudershausen, Dept. of Applied Ecology, who implants and recaptures tags to gather data on eels in the field.

Students studied gill and skin biopsies of various fish for a diagnostics and parasitology lab, and examined actual specimens of marine life for their comparative anatomy lab.

In cooperation with The NC Aquarium at Pine Knoll Shores, students learned about water quality and life support.

The selective was co-conducted by Drs. Craig Harms and Greg Lewbart, both of CMAST. The selective was previously held on NC State's Raleigh campus, but this session marked the second year the class has been held at CMAST, allowing students a week at the coast in order get right to the source of marine life.



NC State College of Veterinary Medicine's 2015 Advanced Fish Medicine Selective class. CVM students spent an intensive week at CMAST for hands-on clinical work and lectures. Labs included surgery and anesthesia, diagnostics and parasitology, comparative anatomy, and a lab on water quality and life support at the NC Aquarium at Pine Knoll Shores.

Sea Wolves Attend Stranding Training in April

Students who participated in The Science House @ CMAST's Sea Wolf program in April attended marine mammal stranding training, including a necropsy on a newborn dolphin.

The Sea Wolves is a 4H Program for Middle and High School students interested in Environmental and Marine Sciences.

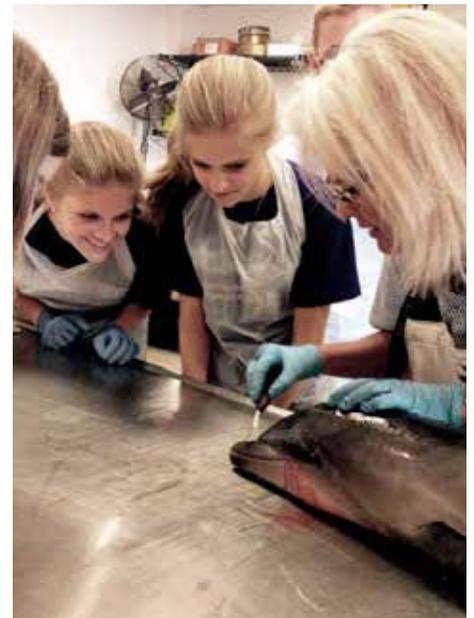
One of the many educational outreach programs offered by The Science House at CMAST, the Sea Wolves hold monthly meetings at CMAST on the first and third Tuesdays at 5:30 pm. They focus on activities centered on coastal marine sciences and leadership.

The Sea Wolves recently competed in the Coastal Envirothon in New Bern and placed at the top of the teams from Area 6 of the NC Association of Soil and Water Districts, qualifying them to move on to the State competition.

All interested students who are in grades 9-12 or completing the 8th Grade are invited to contact the group's advisor, Dr. Pat Curley at pw-curley@ncsu.edu or visit their facebook page at <https://www.facebook.com/SeaWolves4H>



NC State CVM students monitoring an eel under anesthesia



Dr. Vicky Thayer discusses the anatomy of an infant dolphin with Sea Wolves Nadine Guthrie and Sara Hostmark. The necropsy was part of a stranding training program the Sea Wolves attended at CMAST in April.

CMAST Director Receives Distinguished Undergrad Professor Award

CMAST Director Dr. David Eggleston was selected to receive the NC State Alumni Distinguished Undergraduate Professor Award for 2014-2015. This award recognizes service as an outstanding teacher at NC State.

Only two faculty who are members of the Academy of Outstanding Teachers may be nominated by each college, and only faculty members who have provided long-term, distinguished service in undergraduate teaching at NC State are considered for this award.

Dr. Eggleston received this award and certificate during the Alumni Association's awards ceremony and reception on April 15 at the Park Alumni Center. In addition, Dr. Eggleston will be recognized as an Alumni Distinguished Undergraduate Professor in the NC State Spring 2015 Commencement Program.



L to R: Gary Upchurch, President, NC State University Alumni Association; Benny Suggs, Executive Director, NC State University Alumni Association; David Eggleston, Randy Woodson, Chancellor, NC State University;

David Green wins Carl J. Fellers Award

CMAST's David Patrick Green, PhD, has received the 2015 Carl R. Fellers Award from the Institute of Food Technologists (IFT) for his long-standing dedication to enhance the profession of food science.

Dr. Green is Professor and Department Extension Leader in Food, Bioprocessing and Nutrition Sciences at North Carolina State University, and is Director of the NC State University Seafood Laboratory at the Center for Marine Sciences and Technology (CMAST) in Morehead City. He will receive the award at the annual IFT conference in Chicago this July.

The award honors a member of IFT and Phi Tau Sigma (the honor society for food science and technology) who has brought honor and recognition to the profession of food science and technology with achievements in areas other than research, development, education, and technology transfer.

In addition to his 29-year career in the Seafood Lab, he has served as CMAST Director, Chair of the IFT Aquatic Food Products Division, Editor-in-Chief of the Journal of Aquatic Food Product Technology, is a long-time member of the Steering Committee of the National Seafood HACCP Alliance for Education and Training and is known worldwide for his innovative outreach programs and bringing recogni-



Dr. David Green

tion to food science.

Throughout his distinguished career Dr. Green has displayed exemplary leadership, service and communication skills that enhance the effectiveness of all food scientists in serving society.

The award is named for Carl R. Fellers, a food science professor at the University of Massachusetts, Amherst with an internationally known research program and a charter member of IFT and founding father of Phi Tau Sigma. The Institute of Food Technologists is an international, non-profit professional organization for the advancement of food science and technology.

studentawards

MS student **Katelyn Jenkins** was awarded a National Science Foundation Graduate Student Fellowship for her work on marine community dynamics.

Former PhD student and current post-doc **Ashlee Lillis** was awarded a highly competitive institutional, post-doctoral scholarship to the Woods Hole Oceanographic Institute (WHOI). Ashlee will be working on soundscape ecology and larval biology at WHOI with Dr. Aaron Mooney and his colleagues.

PhD student **Seth Theuerkauf** was awarded a highly competitive graduate coastal research fellowship by the NC Coastal Reserve and NC Sea Grant to study Impact of an Invasive Species on Ecosystem Service Provision: Applications for Phragmites australis Management in the NC Coastal Reserve System

PhD student **Doreen McVeigh** was awarded the Best Student Presentation at the 2015 Benthic Ecology Meeting in Quebec Canada for her paper entitled: Population Connectivity of Methane Seeps in the Intra-American Seas.

MS student **Shannon Brown's** research on soundscape ecology will be featured in the summer 2015 issue of NC Sea Grant's Coastwatch magazine.