



Channel Islands

CALIFORNIA STATE UNIVERSITY

BIOSCOPE



BRINGING FUN AND INTERESTING FACTS ABOUT THE CI BIOLOGY PROGRAM TO YOU!

7TH EDITION - FALL 2010

SYMPOSIUM

This year our 7th Annual Poe Symposium will be held on April 15, 2011. The title of the symposium is: Hurricanes, Po Boys, and Tar Balls: The role of interdisciplinary science in addressing ecological disturbance in the Gulf of Mexico. Recent ecological disturbances in the Gulf such as hurricanes Katrina, Rita and Ike and the Deepwater Horizon oil spill have posed unique challenges for scientists engaged in understanding these ecological catastrophes.

The magnitude of these storms and pollution events requires an interdisciplinary approach to science if we are to adequately address the social, economic, and ecological implications of these disturbances.

The purpose of this year's Poe Symposium will be to educate the campus and the community at large on the magnitude of impact associated with these events and the "geography of vulnerability" of the people in the Gulf region.

For more information and updates, visit:

<http://biology.csuci.edu/poe>

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GRADUATE ALUMNI



Francesca Boscolo graduated in October 2010 from CI with a M.S. in Biotechnology and Bioinformatics: Emphasis in Stem Cells Technology and Laboratory Management. Francesca is currently working at The Scripps Research Institute in San Diego, the world's largest independent non-profit biomedical research facility. She is working in the department of Chemical Physiology, where the goal is to discover, characterize, and eventually control the biochemical pathways that regulate higher-order physiological and pathological processes. The focus of the lab that Francesca is working in is on stem cell research.

Francesca has two masters' degrees. She received the first masters from Universita' di Bologna in Biotechnology with an Emphasis in Plant Biotechnology. Soon after graduating she discovered a growing interest for both the medical and computational aspects of biotechnology. For these reasons she moved to California and started the M.S. in Biotechnology and Bioinformatics program at CI. Francesca is currently working on a project that aims to determine the microRNA (miRNA) network in stem cells. The aim of the study is to identify miRNAs involved in proliferation and differentiation of stem cells. She is now applying for various PhD programs across the country since her dream is to stay in academia and teach.

Francesca had this to say about the M.S. in Biotechnology and Bioinformatics Program:

"When I was in Italy, I was studying and working on plant biotechnology. After graduation I soon realized that my interest was switching towards medicine and computational application of biology. I started searching for a program that would help me expand my knowledge in these fields. The M.S. in Biotechnology and Bioinformatics Program at CI seemed to have the potential to fulfill my necessity. My experience at CI was wonderful. I was able to improve my theoretical knowledge along with my lab experience in both biotechnology and bioinformatics fields. Thanks to my accomplishment during my first two years in the program I won the CIRM Bridges to Stem Cells Research Award and I had the great opportunity to carry out a sponsored year-long internship at The Scripps Research Institute. I really think that this award along with all the knowledge I gained at CI will help me in my future career."

STUDENT ASSISTANT SPOTLIGHT



Kimberly Cerda is a junior who is earning a B.A. in Biology: Emphasis in General Biology and a minor in Sociology. While pursuing her degree she has found time to not only work for the Biology Program as a student assistant, but she has also been able to develop her personal growth.

Kimberly had this to say about her experience here at CI:

"CI has given me the opportunity to develop personal growth through community involvement and through the process of meeting the requirements of a degree in Biology. This has been one of the most rewarding semesters yet. As an LSAMP participant I have had the opportunity to travel to Seattle, Washington for a Biosimilars conference, volunteer with the annual Science Carnival and participate in advising local high school students with their science fair projects. During my involvement I have also been able to pursue personal interests; I ran my first half-marathon which was a thrill. I have also paired up with FOODSHARE to assist in senior nutrition programs and we are currently working on developing physical activity programs for children in our community. Nutrition and physical fitness is a central interest and I am also beginning a volunteer project with Join to Farm and working with their Dietician to promote organic, clean, and healthy food habits within the community. Other volunteer efforts include local beach clean ups and beach restoration. I would have to credit specific courses like Ecology and the Environment with Professor Angela Chapman and Social Entrepreneurship with Professors Dennis Downey and John Morris for providing guidance and igniting my motivation to get involved."



HUMAN ANATOMY AND PHYSIOLOGY

Anatomy is the study of the structure of living things (organisms). This subdiscipline of biology includes human, animal and plant anatomy and can be further subdivided into gross anatomy and microscopic anatomy. Gross anatomy is the study of large scale structures that can be seen with the naked eye and microscopic anatomy is the study of minute anatomical structures. To be able to identify a structure and its function one needs to look at both human anatomy and physiology. Human anatomy is primarily the scientific study of the anatomical structures of the human body, whereas the primary focus of physiology is at the level of organs and systems. Physiology is used to determine how cells, biomolecules, organs, organisms and organ systems carry out the chemical or physical function they have in a living system.

So why study human anatomy and physiology? Well by studying anatomy and physiology, specifically human anatomy and physiology, then we can gain a better understanding of the structures and systems of the body and how they work. Organ systems don't exist as individual units, it is important to remember that. To keep the body functioning normally, each system either directly or indirectly depends on the others.

Generally, students of the sciences, physicians, nurses, dentists, paramedics, pharmacists, and radiographers study human anatomy and physiology. However, artists such as Leonardo da Vinci were able to improve their art by gaining a better understanding of human anatomy and physiology. Through this understanding he was able to advance both human anatomy and physiology and its representation in art.

At the 2nd Annual CI Science Carnival held on Friday, October 22, students from kindergarten to 8th grade and their parents were able to experience hands-on human anatomy and physiology with the help of Dr. Lorna Profant. If you are interested in learning more about human anatomy and physiology you may want to take Biology 210 and 211 where the study of gross and microscopic anatomy and physiology of the human body is explored. For additional information please contact Dr. Profant at: lorna.profant@csuci.edu.

CLIMATE CHANGE & THE ARCTIC NATIONAL WILDLIFE REFUGE



The Arctic Refuge is home to 45 species of mammals, 36 species of fish, 180 species of birds, and the traditional homeland of Inupiat Eskimos and Gwich'in Athabascans. Arctic ecosystems and communities are extremely sensitive and threatened by global climate change. By taking Univ 391 in Spring 2011 you will learn more, hands on. Experience five days of wilderness camping in the Refuge as the Porcupine Herd caribou migration begins, tour the Prudhoe Bay oil fields on Alaska's north slope, talk with residents of the Gwich'in community of the Arctic Village and the Inupiat village of Katovik on the Beaufort Sea, learn about ongoing climate change research at the University of Alaska Fairbanks.

This course is open to all majors and student cost is partially defrayed by IRA funding. If you are interested in a field trip to Alaska, in early June 2011, please attend the information session to be offered during the first week of classes (24-28 January) to learn more about the course and the application process. The date and time of the information sessions will be posted in early January. Specific travel dates will be determined before the information session in January.

For more information please contact Dr. Amy Denton, amy.denton@csuci.edu or Dr. Scott Frisch, scott.frisch@csuci.edu after January 1st 2011.

Check out the Spring 2009 course website: <http://faculty.csuci.edu/amy.denton/arctic/>





DID YOU KNOW?

Hurricanes are the largest most destructive storms on Earth. In other parts of the world hurricanes are also called typhoons and tropical cyclones. On average, in the Atlantic 10 tropical cyclones develop each year. Out of these 10, six of them may strengthen to hurricane magnitude and two out of those six are likely to strike the United States.

DEGREE SPOTLIGHT

The Bachelor of Science in Biology with an Emphasis in Medical Imaging prepares students for graduate or professional study in the medical sciences (medical imaging, medical physics, health physics, dosimetry, nuclear medicine, radiotherapy, oncology, biomedical engineering), or for entry into professional positions in the clinical environment and in medical imaging research and development.

We'd love to hear from you ! Let us know what you think of our e-Newsletter:
Please send your thoughts to: Catherine Hutchinson at catherine.hutchinson@csuci.edu