

San Diego Festival of Science & Engineering to Offer Students Walk on Wild Side of Science, Engineering

Top UC San Diego faculty members to highlight fun side of careers in STEM fields

Perfectly qualified to teach herbology at Hogwarts School of Witchcraft and Wizardry, Steve Briggs instead settles for distinguished professor at UC San Diego. Briggs researches plant cell biology and focuses particularly on plant immune systems. Aside from being a main source of food, livestock feed, clothes and building material, plants also “give us medicine and natural beauty,” he says. As chief scientist of the 2013 San Diego Festival of Science & Engineering, Briggs brings a level of excitement and enthusiasm to the event that rivals his passion for botany.



Photos by Erik Jepsen/UC San Diego Publications

Beginning Saturday, March 16, the San Diego Festival of Science & Engineering will host a weeklong celebration of innovation with more than 40 events throughout the county. These events will culminate in EXPO DAY, an over-the-top and engaging event set to take place Saturday, March 23 at PETCO Park. All festival events will highlight education and real-world applications of STEM (Science, Technology, Engineering, and Mathematics) fields.

“All new understanding of the natural world is created by scientists and all new technology is created by engineers,” says Briggs, who encourages students of all ages to attend events and engage with scientists and engineers from all walks of life. Every festival event and EXPO DAY booth will feature fun, interactive and educational activities to excite students about STEM fields and their endless possibilities.

Previously organized by UC San Diego, the 2013 San Diego Festival of Science & Engineering is produced by the BIOCUM Institute in partnership with UC San Diego and the Reuben H. Fleet Science Center, continuing the critical emphasis on STEM studies and their application and practicality in today’s world.



One of the main goals of the festival is to introduce students to STEM fields through the invaluable guidance of learned and distinguished professionals who can dispel the intimidating stigmas surrounding their studies. Events and booths will explore not only the excitement behind science and engineering, but their approachability, accessibility, feasibility and economic practicality. As Briggs puts it, “The best jobs today and for the rest of this century are in science and engineering.”

Another highlight of the festival is – aside from professional participation – the involvement of UC San Diego’s undergraduate and graduate students.

“Engineering science is incorporated into virtually everything we contact daily,” says Ludovic Vincent, president of the Jacobs Graduate Student Council at the UC San Diego Jacobs School of Engineering. The graduate organization will be showing students and parents how to draw electrical circuits and how to extract DNA from strawberries in a matter of minutes.

“DNA is not a mythical substance,” he says. “It’s very much real and has the consistency of pudding when extracted from fruits, vegetables, or any other living organism.” Vincent is particularly excited to show EXPO DAY attendees the simplicity of electronic circuitry and see the ensuing “fascination on the students’ and parents’ faces.”

Set to feature “rockets, drones, biofuels, medical devices, plants, and animals,” EXPO DAY in particular will be an event not to be missed. “I will visit every booth just for the fun of it!” exclaimed Briggs.

Continuing its involvement in the festival, UC San Diego will be participating in six events throughout the festival week, hosting 19 EXPO DAY booths and presenting 13 Nifty50 speakers – STEM professionals who give presentations in local K-12 classrooms year-round. UC San Diego related events include:

Saturday, March 16, 11 a.m., Birch Aquarium at Scripps, San Diego

SEA Days at Birch Aquarium at Scripps

Seabirds can live in and migrate over entire oceans and across thousands of miles. How, you ask? Meet Scripps Institution of Oceanography scientists to find out the science behind it and the best spots to see them.

Sunday, March 17, 10 a.m., La Jolla Shores

SCUBA Science and Engineering

The UC San Diego SCUBA diving student organization, Seaducers, will show attendees the technology behind scuba diving and what makes it all possible. Expert divers will also be present to engage participants in the intricacies and usage of real diving equipment.



Sunday, March 17, 2 p.m., Wild Willow Farm and Education Center

Bee Charmed!

Bees are awfully social creatures – perhaps even more so than ourselves! Join UC San Diego researcher James Nieh as he explores the foraging, communication and social behavior of the average working honey bee. Participants may then take a tour of the Willow Farm and Education Center’s bee hives and enjoy a honey tasting.

Monday, March 18, 11 a.m. and 12:30 p.m., UC San Diego



Skateboard! Humans vs. Robotics

Before we can worry about robots overthrowing the human race, we must defend our skateboarding reputations! Join UC San Diego students as they demonstrate the mechanics behind robotics and whether humans or robots are better at skateboarding.

Monday, March 18, 4 p.m., Castle Park High School,

Chula Vista

The Science and Power of Social Networks

In order to understand the workings of digital social networks like Facebook, we must explore the everyday, face-to-face networks that have surrounded us for ages. Research suggests a “Three Degrees of Influence Rule,” that explain our interactions and effects on others. Presented by James Fowler, UC San Diego professor of political science in the Division of Social Sciences and of medical genetics in the School of Medicine, this experiment will be conducted first-hand with students from Castle Park High School.

Wednesday, March 20, 6 p.m., Calit2 Atkinson Hall Auditorium, UC San Diego

Science Speed Round

Eight of San Diego's best and brightest scientific minds will each have five minutes to propose their genuine concepts and ideas, followed by an additional five minutes for discussion and debate. With topics ranging from NASA spacecraft landings to electronic temporary tattoos, this event is expected to be unpredictably exciting. Dr. Steve Mayfield, professor of molecular biology at UC San Diego, will serve as moderator. Featured presenters include UC San Diego professor of structural engineering Tara Hutchinson and associate professor of bioengineering Todd Coleman.

The 2013 San Diego Festival of Science & Engineering is produced by the BIOCUM Institute in partnership with UC San Diego and the Reuben H. Fleet Science Center. For the full event schedule, volunteer opportunities and additional information, visit sdsciencefestival.com.

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