



SDSU Science & Engineering Sampler • March 15, 2014 • 9am–2pm

San Diego State University • Visit Website for Event Locations • <http://sci.sdsu.edu/sampler> • 619.594.5142

BYOB (Build Your Own Butane) Chemistry on the Computer

Use molecular modeling software on computers to construct a molecule and test it for stability.

Computer Science and Sound: Dolphins and You

Visit the Audio Lab where we use computer science to analyze dolphin and whale sounds. Learn how to visualize your own voice using spectrograms.

CSI meets CSU

Learn about Forensic Science, develop fingerprints utilizing different methods.

Fixing a Broken Heart

View displays of heart circulation, cardiac anatomy, and actual data recordings of a heart attack.

Electron Microscope Facility

See inside cells magnified thousands of times on our scanning and transmission electron microscopes.

Exploration of the Human Body

Explore the amazing world of the human body. Look into a microscope to see the incredible organization and beauty behind bone and muscle.

Flow Cytometry Facility: Lasers Make Cells Glow

Watch with microscopes as high-powered lasers allow individual cells to fluoresce in different colors.

Flying and Chasing Robots

See several robot projects including: helicopter robot for monitoring natural reserves/ habitats; and an assistant robot that follows a walking person.

Fuel-Cell / Solar Hybrid Model Car Demonstration

Demonstration using a hydrogen fuel-cell/solar hybrid-powered toy car.

Laser Applications in Chemistry and Biochemistry

A wide range of lasers, used in multi-photon nonlinear laser techniques for biomedical and environmental applications, will be on display.

Museum of Biodiversity

See big bugs, hairy spiders, skeletons, furs, feathers, plants, and more from our vast museum collection. Learn about field biology and natural history education at SDSU.

Phage Attack: Weapons of Microbe Destruction

Learn how phage, the viruses of bacteria launch attacks against their bacterial targets. See bacterial cultures before and after phage attack.

Planetarium Shows

Enjoy a tour of the starry night sky in our planetarium. (20-minute shows) Sorry, no wheelchair access inside planetarium.

Regenerating the Human Body with Stem Cells

Learn how stem cells make all the different parts of the human body, and how they repair and replace dead and damaged organs.

Show-Me Geology

Learn about the importance of rocks and minerals in everyday-life, start a mineral collection.

See Inside the Human Brain

See how magnetic resonance imaging (MRI) can be used to image the human brain and ways that scientists study the structure and patterns of activity in children's brains as they mature into adults.

Super-Cool IceCream: The Cool World of Cryogenics

Liquid nitrogen instant ice cream, balloon freezing, and much more.

Take a Land Cruise on the RP Oceans

Make waves, move beaches, measure the Earth's rotation.

Telescopic Views of the Sun

View the Sun (safely!) through telescopes; hopefully see sunspots.

The Lab Zone

Hands-on design, building, and testing of your very own project to learn basic math, engineering, and scientific principles.

Stem Cell and Tissue Regeneration

Learn how freshwater planarians (flatworms) have the remarkable ability to replace missing tissue after an injury.

VizCenter: Helping the World

See how the VizCenter helps with Humanitarian Assistance Disaster Relief, stimulation of international relationships and trade, plus assisting law enforcement through emerging technologies.

Who Cheated? Find out by Using Chromatography

Five students are suspected of forging the answers to an exam. You need to determine if one of the pens found on a suspect matches the ink from the exam. Use the same technique the police use to analyze ink.

Wildfire Science in San Diego

Learn how researchers are working with firefighters to help improve community protection and firefighter health and safety.

X-ray Crystallography

Chemists and biologists learn how a molecule works by studying its three-dimensional structure, even the largest molecules are too small to be directly observed by the most powerful light microscopes.

Engineering Village

Various displays including: mechanical engineering machine shop, aerospace, robotics, and many more.



SAN DIEGO STATE
UNIVERSITY

College of Sciences

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FREE Event, Parking, and Activities for the Entire Family!

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