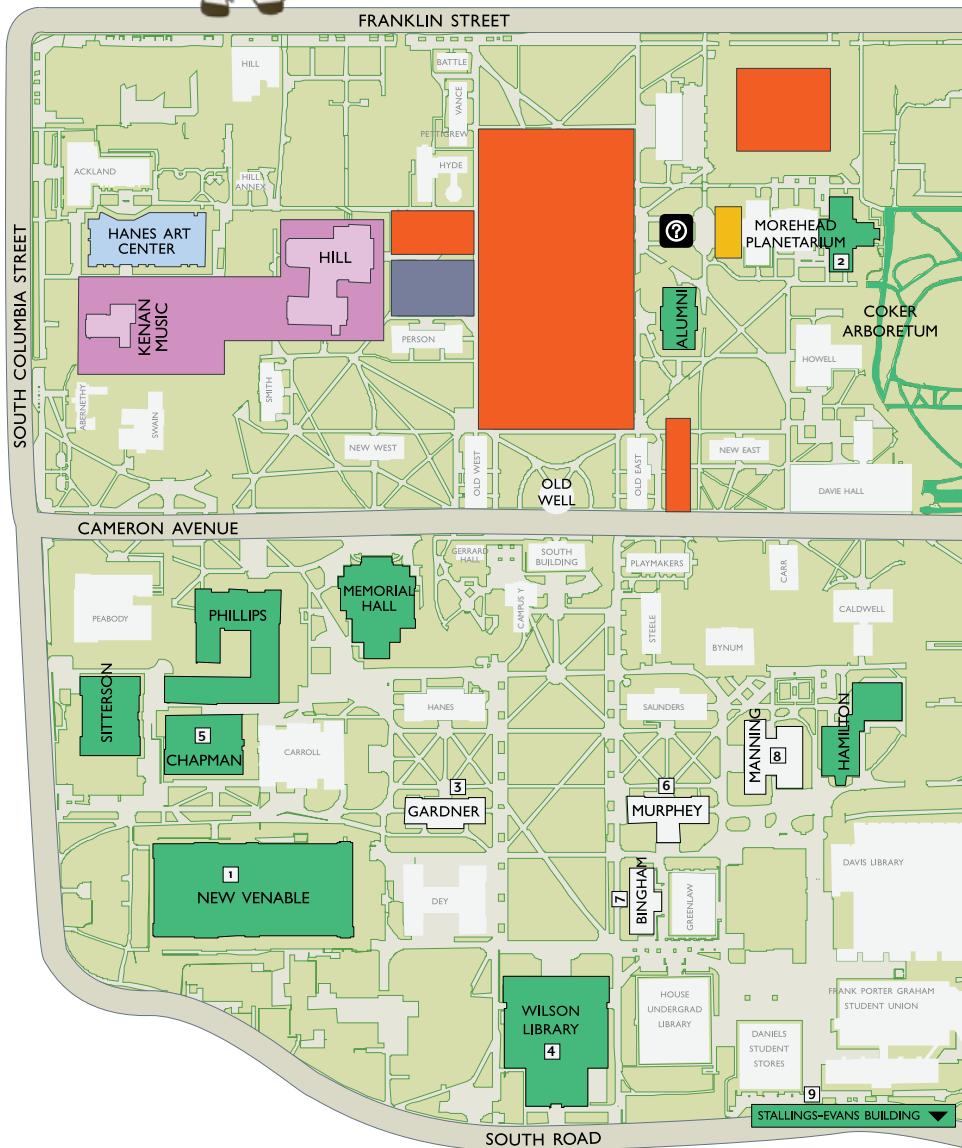




UNC Science Expo

SATURDAY, SEPTEMBER 25, 2010
11a.m.–4p.m. | UNC-CHAPEL HILL CAMPUS

Presented by UNC Morehead Planetarium and Science Center
www.moreheadplanetarium.org



Keynote Event — *The Life and Work of a Nobel Prize Winner*

2:00 p.m. | Hanes Art Center Auditorium
Appropriate for ages 13 and older.

Meet a Nobel Laureate! Dr. Oliver Smithies, recipient of the 2007 Nobel Prize in physiology or medicine, will discuss his life, research and hobbies with UNC President Emeritus William Friday. A question and answer session will follow.

Science Stage

- 11:15 a.m. SAS's VocalMotion
- 12:00 p.m. Phenomenal Physics with Dr. Duane Deardorff
- 12:45 p.m. DSI Comedy Theater presents Science Improv
- 1:30 p.m. The Brain Show with Dr. Gary Duncan
- 2:15 p.m. Science Storytelling by Dr. Brian Sturm
- 3:00 p.m. "The Rap of Evolution" with Baba Brinkman

North Carolina Science Challenge

For 3rd through 10th graders and their chaperones. All ages invited to watch. Engage in a friendly competition of spaghetti bridge building, paper tower construction, egg Olympics, circuitry, estimation, egg drop, catapult and trebuchet construction and more!

Science Spot

ride a Segway | slice solids with lasers | dig a fossil | stump a scientist dress for surgery | design a helmet | explore your DNA | become a knight meet an urchin | launch a rocket | catch a wave | blow bubbles | make a spark rumble with a rock | ask an archaeologist | look through a telescope taste solar sweets | explore a Nascar racecar, Town of Chapel Hill fire truck and UNC Health Care ambulance | and much more!

Small Science

Activities designed for children to age 8.

Directions

To reach the UNC-Chapel Hill campus, exit off I-40 via N.C. 86 South, or N.C. 54 West or U.S. 15-501 South. Follow signs to parking.

Parking

Free parking can be found throughout campus. Be prepared to walk for several minutes to Expo venues, or take the free U Bus to the Morehead Planetarium stop or RU Bus to the Peabody Hall stop.

Paid parking can be found at the UNC Rams Head lot on Ridge Road or Town of Chapel Hill parking lots on Rosemary Street.

Handicapped parking is available throughout campus. Additional handicapped parking is available at the Morehead Planetarium lot on Franklin Street.

Bus parking is located on Skipper Bowles Drive near the Dean Smith Center.

Useful Information

Activities are appropriate for school aged children and older unless otherwise noted. Small Science activities are designed for preschoolers.

Restrooms can be found in all open university buildings.

Food and drinks are available at Lenoir Dining Hall and other locations on the UNC-Chapel Hill campus and in restaurants along Franklin Street.

First Aid is available at the Red Cross tent near the Science Stage.

The Expo takes place rain or shine! If necessary, a revised Expo map will be posted at www.moreheadplanetarium.org on Sept. 25 by 8:00 a.m.

Schedule subject to change.

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Speaking of Science Experts share their recent discoveries and thoughts on the future. For ages 13 and up.

1 Alternative Energy (New Venable Hall, room number TBA)

What will power the future? Harnessing creative thinking will lead to a brighter tomorrow.

- 11:30 a.m. Dr. John Papanikolas, UNC Chemistry
- 12:30 p.m. Mr. Toby Considine, UNC Systems Specialist
- 1:30 p.m. Dr. Wei You, UNC Chemistry

2 Astronomy and Space Science (Morehead Planetarium West Entrance)

Today the universe is literally at your fingertips. Leave the planet, if for only a few minutes!

- 12:30 p.m. Dr. Daniel Reichart, UNC Physics and Astronomy
- 1:30 p.m. Dr. Gerald Watson, Raleigh Astronomy Club
- 2:00 p.m. Dr. Michael Malaska, Raleigh Astronomy Club
- 2:30 p.m. Raleigh Astronomy Club

3 Climate Change (Gardner Hall 105)

Get the latest forecast on climate change and how it affects your health.

- 11:30 a.m. Mr. Greg Fischel, WRAL
- 12:30 p.m. Dr. Lawrence Band, UNC Institute for the Environment
- 1:30 p.m. Air Pollution and Your Health Panel Discussion: Environmental Protection Agency researchers

4 Mini-Medical School (Wilson Library Pleasants Meeting Room)

Science is fighting diseases such cancer and eating disorders. How long until there's a cure?

- 11:30 a.m. Dr. Jack Griffith, UNC Microbiology and Immunology
- 12:30 p.m. Dr. Mark Peifer, UNC Biology
- 1:30 p.m. Dr. Cynthia Bulik, UNC Psychiatry
- 2:30 p.m. Dr. Ian Davis, UNC Pediatrics

5 Nanotechnology (Chapman Hall, room number TBA)

In science, size does matter. Nanotechnology offers new insights into health and medicine.

- 11:30 a.m. Dr. Richard Superfine, UNC Physics and Astronomy
- 12:30 p.m. Dr. Mary Napier, UNC Comprehensive Cancer Center
- 1:30 p.m. Dr. Wei Xu, UNC Chemistry

6 Oil and the Oceans (Murphey Hall, room 116)

Oil is a hot topic, especially with the recent spill in the Gulf of Mexico. What are the long term ramifications of oil dependence?

- 11:30 a.m. Dr. Gerald Cecil, UNC Physics and Astronomy
- 12:30 p.m. Oil Plume Panel Discussion: Dr. Roberto Camassa, UNC Mathematics; Dr. Richard McLaughlin, UNC Mathematics; and Dr. Brian White, UNC Marine Sciences
- 1:30 p.m. Dr. John Bane, UNC Marine Sciences
- 2:30 p.m. Dr. Rick Luettich, UNC Institute of Marine Sciences

Specialized Topics

- 11:30 a.m. 8 The Nature of Matter and Searches for Dark Matter, Dr. Reyco Henning, UNC Physics and Astronomy (Manning Hall 209)
- 11:30 a.m. 2 YouTube and Test Tubes: The Intersection of Digital Storytelling and the Sciences, Carolina Digital Story Lab (Morehead Planetarium West Entrance)
- 12:30 p.m. 8 Butterflies for Solar Cells: Mimicking the Structure of a Butterfly Wing in a Solar Cell, Dr. Rene Lopez, UNC Physics & Astronomy (Manning Hall 209)
- 12:30 p.m. 7 Imagining the Brain and Mind: Understanding Autism and Schizophrenia, Dr. Aysenil Belger, UNC Psychiatry (Bingham Hall 103)
- 12:30 p.m. 2 How Air Quality Affects Children's Health, Ms. Virginia Guidry, UNC Gillings School of Global Public Health (Morehead Planetarium West Entrance)
- 1:30 p.m. 8 The Physics of Music: Why Don't Violins Sound Like Flutes? Dr. Laurie McNeil, UNC Physics and Astronomy (Manning Hall 209)
- 1:30 p.m. 7 Exploding Volcanoes: How the Earth Works, Dr. Jonathan Lees, UNC Geological Sciences (Bingham Hall 103)
- 2:00 p.m. 9 The Science in Sports: How to Keep Athletes Safe, Dr. Kevin Guskiewicz, UNC Exercise and Sports Science (Stallings-Evans Building, room number TBA)
- 2:30 p.m. 8 Sports, Politics, and Energy Transport through the Lens of Network Analysis, Dr. Peter J. Mucha, UNC Mathematics (Manning Hall 209)
- 2:30 p.m. 7 When Chapel Hill Was in South America: A Journey through the Triangle's Geologic Past, Dr. Kevin Stewart, UNC Geological Sciences (Bingham Hall 103)

Open Houses and Tours

For ages 8 and older.

Open from 11:00 a.m. to 4:00 p.m. unless otherwise noted.

Get an early start at the North Carolina Botanical Garden — open 9:30 a.m. | www.ncbg.unc.edu

- UNC Computer Science (Sitterson Hall)
- UNC Physics and Astronomy (Phillips Hall, Chapman Hall)
- UNC Institute for Advanced Materials (Chapman Hall)
- UNC Applied Mathematics (Chapman Hall)

- UNC Nanoscale Science Research Laboratory (Chapman Hall)
- UNC Undergraduate Admissions Talk and Tour (1:00 p.m. at Hamilton Hall 100)
- Morehead Observatory Remote Observing Laboratory (Morehead Planetarium)
- UNC Coker Arboretum
(tours begin at 1:30 p.m. and 2:30 p.m. at the arboretum's northwest entrance)
- UNC Anthropology and Archaeology (Alumni Hall)
- UNC Exercise and Sport Science (Stallings-Evans)
- Destiny and Discovery, UNC Morehead Planetarium and Science Center's high tech mobile laboratories (parked in front of Memorial Hall)