ENGINEERING your summer of FUN!

Dr. Skip Rochfort

Spring is in the air and that means just one thing….summer is just around the corner! This is the time of year when kids start asking their parents, “What am I going to do all summer?” OSU and the College of Engineering have just the answer for you…..send your child to one of the many engineering and science camps offered at OSU…..and at such a DEAL! These camps are geared towards helping the kids have a holistic summer experience, where both mind and body are relaxed and expanded. Just like when we get out of shape when we don’t exercise for three months, imagine how your children’s minds get after not “thinking” for three months! These camps provide mind expanding opportunities for the kids by exposing them to some of the outstanding facilities available in the OSU College of Engineering and to the whole experience of college itself. All in a relaxed, friendly, and non-intimidating environment that focuses on the fun and excitement of engineering and science!

The following section lists those programs that deal with primarily with engineering and science and have some affiliation with the College of Engineering. A complete list of all the OSU summer K-12 Precollege Programs can be found at http://oregonstate.edu/precollege where the Summer Programs Brochure can be downloaded in both English and Spanish.

OSU for Youth 2006 – Summer Camps on the OSU Campus
Summer Experience in Science and Engineering for Youth (SESEY)
Grades 9 – 12, July 9-14
Skip Rochfort and Michelle Bothwell
Chemical Engineering Department, 103 Gleeson Hall 541-737-2408
Skip.Rochfort@oregonstate.edu http://che.oregonstate.edu/SESEY

SESEY is primarily for high school girls and ethnic minorities traditionally underrepresented in science and engineering, and for science, math, or physics teachers who are interested in developing curricular materials to promote engineering activities in their classrooms.

Students come to the OSU campus for a one-week residential summer camp and are paired with a faculty mentor in engineering for a mini-research project in areas such as micro scale technologies, plastics recycling, drug formulation and delivery, bioprocessing, microelectronics, and environmental engineering. There are also group learning activities such as computer instruction, communication skills, field trips and social activities. Students are exposed to science and engineering as viable and interesting career paths. Career counseling is provided by faculty mentors and OSU graduate/undergraduate students who work with the students throughout the week as research project advisors and friends. Students live in OSU housing, so they receive a complete college experience. The main goal for science teachers during the week is the development of engineering modules, which they create with a faculty mentor and take back to their high schools to present in science classes.
Fee: $150 for the week (includes room and board, field trips, materials, and instruction) due after acceptance into the program. Students are responsible for getting to and from OSU. Scholarships are available so no student will be excluded because of financial constraints.

Application postmark deadline: June 9; notification by June 16, 2006

Saturday Academy Middle School Engineering Camp (E-Camp)
OSU Engineering Faculty and Students Middle school students will spend a week on the OSU campus exploring the many careers available in the field of engineering. Hands-on activities each day will feature bioengineering, chemical, civil, environmental, electrical, industrial manufacturing and mechanical engineering. You'll work in laboratories and classrooms as you design, construct, and test models.

Who: 6-9th graders
When: Monday, July 24- Friday, July 28 9:00 a.m.-4:00 p.m.
Where: OSU Tuition $175
Contact: Nancy Wortman (Director) (541)727-1822 nancy.wortman@oregonstate.edu
Dr. Skip Rochefort (skip.rochefort@oregonstate.edu)
Website: http://academy.engr.oregonstate.edu

Saturday Academy Middle School Lego Robotics for Girls and Boys
Have fun making things out of LEGO pieces and learn about the "smart" bricks including the Mindstroms RCX. Work with a partner to put together a simple robot, practice "driving it" and set it up to avoid obstacles using touch sensors. Use a computer to teach your robot to follow a line, play a favorite song (if you can pick it out on a computer piano) and
do a victory dance at the finish. Move on to solving robotic challenges with modifications to your hardware and software, like saving Oregon's forests by helping to put out "fires". You'll also see how your RCX can be used as a "process controller" that automatically controls the temperature in a box, similar to a home thermostat, and how robots are starting to be used in surgery.

No experience is necessary. Start with the basics and receive lots of help.

**Who:** 6-8th graders  
**When:** Monday, June 26-Thursday, June 29, 2006 Two sessions  
Intermediate session 9:00 a.m.-12 noon  
Beginning session: (Girls only) 1:00 p.m.-4:00 p.m.  
**Where:** OSU Tuition: $100  
**Contact:** Nancy Wortman (Director) (541)727-1822 nancy.wortman@oregonstate.edu  
Website: [http://academy.engr.oregonstate.edu](http://academy.engr.oregonstate.edu)

---

**Saturday Academy Middle School Science Camp**

Explore areas of science that you may not get to see in school. We'll play with polymers, analyze sunscreens, look at the sun through a telescope, make speakers from a paper cup, plus much more. Learn about DNA and do some cool hands-on experiments. Learn about the science and physics behind scuba-diving.

**Who** 6-8th graders  
**When:** Monday, July 31-Thursday, August 3, 2006 Two sessions  
Beginning session 9:00 a.m.-12 noon  
Or afternoon (more in depth) session: 1:00 p.m.-4:00 p.m.  
**Where:** OSU Tuition $60 per session  
**Contact:** Nancy Wortman (Director) (541)727-1822 nancy.wortman@oregonstate.edu
Saturday Academy Middle School Computer Workshops

Ever wondered how to use basic MS Office software or how to create a website? During the first weekly session, students will learn about software programs such as PowerPoint, Word, Excel, Digital Cameras, Internet, e-mail and IM. The second week will provide instruction in Web page design and animation. Encourage your student to attend either one or both of the workshops.

Who 6-8th graders

When: August 7-10 (computer basics), and August 14-17 (web page design)

Where: OSU

Contact: Nancy Wortman (Director) (541)727-1822 nancy.wortman@oregonstate.edu

Expeditions

Grades 3 and 4, July 10-21

This exciting program provides gifted, talented and creative youth with a two-week, half-day educational experience. Students are introduced to engaging and intriguing subjects in an enjoyable and nurturing environment by instructors with knowledge in a variety of topics.

Fees: $195 tuition • Application deadline: April 4

Carol Brown, Coordinator • 100 Education Hall • 541-737-2670

http://oregonstate.edu/precollege/expeditions

Adventures in Learning

Grades 5 and 6, July 10-21

This adventuresome program combines stimulating academic and social opportunities in a fun filled 10-day experience by exposing participants to exciting and sophisticated areas not usually available during the regular school year. The program is for gifted, talented, and creative learners who are interested in the fast-paced, challenging opportunities. For example, students can explore the secrets of Chemical Reaction Vehicles, experiment with materials used in electronics...
manufacturing, measure pollutants with liquid chromatography-mass spectrometry, marvel at core samples taken from the
deep below the ocean, be amazed at the invisible forces of radiation, or just have fun with the physics of everyday things
and roller coasters. Adventures in Learning’s offerings are guaranteed to stimulate and challenge.

**Fees:** $400 tuition • **Application deadline:** April 4
Mark Latz, Coordinator • 100 Education Hall • 541-737-3735
http://oregonstate.edu/precollege/ail

---

**Outside the Box**
Grades 7 and 8, July 10-21
This outstanding program enables gifted, talented, and creative youth who have completed the 7th and 8th grades to
pursue topics of interest through a unique combination of in-depth, challenging academic explorations and interaction
with intellectual peers. Course material is presented in a fast-paced learning environment significantly different from a
traditional school setting and is designed to interest and challenge program participants.

Students may select topics to expand current interests, or may investigate new areas. Whether they choose to explore the
world of energy in an OSU physics lab, perform chemistry experiments in an OSU chemistry lab, design and construct
their own inhabitable structure, or learn computer programming, meeting and interacting with others who share their
same interests is guaranteed. The program’s offerings emphasize discovery, challenge, and excitement in the learning
process.

For ten days in the summer program participants are introduced to OSU classrooms, labs, and facilities with courses
taught by OSU faculty and graduate students, as well as community professionals. OSU is the perfect setting to share
with these college-bound girls and boys what this university has to offer as they consider college choices, explore
possible career options, and be exposed to the educational expectations that accompany those endeavors.

**Fees:** $400 tuition for full day; half-day option available **Application deadline:** April 4
Judy Michael, Director • 100 Education Hall • 541-737-1289
http://oregonstate.edu/precollege/box

---

**SKIES- Spirited Kids In Engineering and Science**
Grades 1 - 2 and 3 - 5
June 19 - 30 and July 24 - Sept 1 (two week sessions)
Skip Rochefort and Karen Swanger
kidspirit.oregonstate.edu • 541-737-KIDS (5437)
Kids explore chemistry, physics, math, life sciences, ecology and engineering in a fun, interactive and learning
environment. Science and physical activities are mixed throughout the sessions. Contact KidSpirit or go online to
KidSpirit - Summer Day Camp, Partnership Programs, then SKIES at kidspirit.oregonstate.edu.
(SKIES is offered through collaboration by the Chemical Engineering Department, Precollege Programs, and KidSpirit.)
*Latino Olympic Summer Camp 4-H OSU*

Grades 6-8, from July 24-29 (at Salem 4-H Camp)

Mario A. Magaña, Camp Director
OSU State 4-H Office (541) 737-0925  
Mario.magan@oregonstate.edu

The main goal of the Camp it is to establish a bridge between the Latino community and OSU; to expose young people to healthy, educational, and fun environments; where they have the opportunity to explore different career opportunities at OSU; and where they find out about the different programs for academic support, financial aid, and admissions for minorities. All activities have been designed to help the participants to develop leaderships skills, new abilities, and to become successful adults in the future. For other programs and activities for Latinos, call your county OSU Extension Office.

**Cost:** $100 Scholarships are offered for those that cannot pay the total cost.