

Overview

The goals of this institute are to implement hands on activities in math and science, to expose young students to engineering concepts, and to provide team work and leadership opportunities. The program emphasis is to demonstrate how math and science are used to create the designed world.

Students will get a collegiate experience, spending a week living in the CSU residence halls with college student mentors.



Cost

\$500 per week.

Limited spaces are available.

Highlights

- Hands-on laboratory experience
- Industrial plant tours
- Informative work sessions with faculty
- Expert advice on applying to college, including seminars on admission requirements, financial aid, and housing
- Residence hall accommodations for six nights double-occupancy room (just like college students)
- Meals (breakfast, lunch and dinner)
- Supplies
- T-shirt
- Orientation and closing reception for students and parents
- Group photo
- Certificate of completion



Summer 2010 STEM Institute Engineering Program for High School Students

*Artificial Intelligence
Renewable Energy*



**Colorado
State
University**

Sponsored by:

**College of Engineering
School of Education
The Alliance Partnership**

Summer Institute Schedule

July 11-17, 2010

For high school students entering grades 9-12 in Fall 2010

Topic: Renewable Energy

Students will:

- explore advanced concepts in alternative energy, focused on the future of hydrogen fuel cell technology.
- learn about the engineering and science design challenges faced in bringing solar energy, wind energy, and fuel cell technology into everyday use, and will be challenged in the design, construction, and testing of a working hydrogen fuel cell.
- experience informative work sessions, hands-on laboratory practice, field trips, and expert guest speakers.



Please submit completed application to below address:
(applications accepted until filled)

Send to:

Aaron D. Benally
 Program Coordinator
 College of Engineering, WMEP
 1301 Campus Delivery
 Fort Collins, CO 80523

Office: (970) 491-4357



July 18-24, 2010

For high school students entering grades 9-12 in Fall 2010

Topic: Artificial Intelligence: Computing, Designing and Robotics

Students will:

- explore the many dimensions of engineering design, programming, and robotics.
- engage in planning and design, construction, analysis, programming, and testing of different elements of smart robots.
- be challenged to work as a team in building a robot with program staff and college students.
- experience informative work sessions, hands-on laboratory practice, field trips, and expert guest speakers.

Summer STEM Institute Application

Preferred Session: July 11-17 July 18-24

Name _____

Address _____

City _____ State _____ Zip code _____

Phone _____ Alt. Phone _____

Gender (check one) Female Male

Date of Birth _____

T-Shirt Size (circle one) S M L XL XXL

Parent/Guardian Name _____

Parent/Guardian Contact # _____

Parent Email address _____

School & District Name _____

Grade Fall 2010 (circle one) 9th 10th 11th 12th

Current GPA _____

Ethnic Background (circle all that apply):

African American Caucasian/White
 Asian American Hispanic/Latina /o
 Native American, Tribal Name _____
 Other, please specify _____

Check list for a complete application (only complete applications will be considered):

1. _____ Signed application form (please fill in all information above)
2. _____ Letter explaining your wish to participate
3. _____ Recommendation from teacher or counselor
 (If you know of a student who will benefit from this experience, please encourage them to apply.)
4. _____ Copy of transcript or last report card

Submit all of the above information as soon as possible.

Applicant: I certify that all information is correct and complete and if found to be otherwise, I will be removed from consideration.

Signature _____

Date _____

Parent/Guardian: I hereby grant approval for my son/daughter to participate in the 2010 STEM Institute summer program.

Signature of parent/guardian _____

Date _____

For more information, contact Aaron Benally at
 Aaron.Benally@Colostate.edu