

# 2009 Summer Camps for Middle School and High School Students

*Artificial Intelligence  
Climate Change  
Renewable Energy*



# Colorado State University

College of Engineering and School of Education



Funded by the  
National Science Foundation

## Overview

The goals 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. Students may choose to attend either a one-week program or choose to attend both programs during the summer.



Students will get the whole college experience, spending each week living in the CSU residence halls with college student mentors. Limited spots available for middle and high school students from participating school districts listed on the back of this brochure

## Cost

\$350 per week

FREE for participating school districts (see back of brochure)  
Scholarship available up to \$300 for limited income families

## Experience will include

- 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 five nights (double-occupancy room-just like college students)
- Meals (breakfast, lunch and dinner)
- Supplies
- T-shirt
- Opening and closing reception for students and parents
- Group photo
- Certificate of completion

## Send complete applications to your district representative.

### Adams County 14 Public

Schools:  
Lara Eddy  
5291 E. 60th Avenue  
Commerce City, CO 80022

### Brighton Public Schools:

Cynthia Ritter  
18551 E. 160<sup>th</sup> Avenue  
Brighton, CO 80601

### Elizabeth Public Schools:

Mary Anne Fleury  
P.O.Box 610  
634 S. Elbert St.  
Elizabeth, CO 80107

### Englewood Public Schools:

Scott Wallace  
300 W. Chenango Ave.  
Englewood, CO 80110

### Gilpin County Public

Schools:  
Alexis Donaldson  
10595 Hwy 119  
Black Hawk, CO 80403

### Jefferson County Public

Schools:  
Gwen Stroup  
1829 Denver West Dr.  
Bldg #27  
Golden, CO 80401-001

### Mapleton Public Schools:

Jackie Kapushion  
591 E. 80<sup>th</sup> Avenue  
Denver, CO 80229

### Other School Districts:

Aaron Benally  
1301 Campus Delivery  
Fort Collins, CO 80523

Aaron D. Benally, Program Coordinator  
College of Engineering, WMEP  
1301 Campus Delivery  
Fort Collins, CO 80526  
(970) 491-4357, fax (970) 491-3429

# Colorado State University



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# Summer Program Schedule

**July 12-17, 2009**

*For high school students; grades 9-12 in Fall 2009*

**July 19-24, 2009**

*For middle and junior school students; grades 6-8 in Fall 2009*

## Topic: Artificial Intelligence: Computing, Designing and Robotics

Students will explore the many dimensions of engineering design, programming, and robotics. Students will engage in planning and design, construction, analysis, programming and testing of different elements of smart robots. Students will be challenged to work as a team in building a robot with program staff and college students. This program is designed around informative work sessions, hands-on laboratory experiences, field trips and expert guest speakers. Emphasis of this engineering experience is to demonstrate how math and science are used to create the designed world.

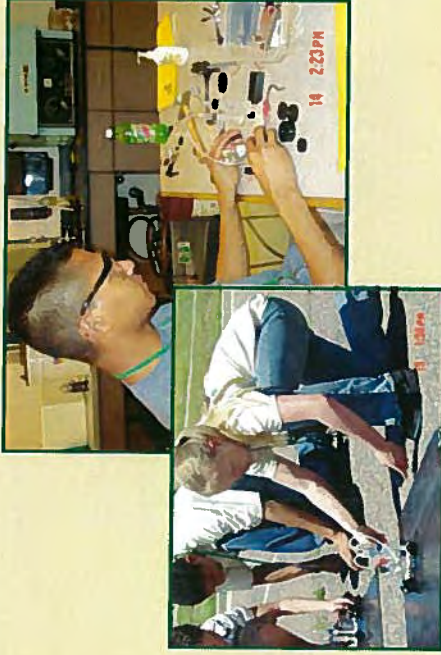


**June 21-26, 2009**

*For high school students; grades 9-12 in Fall 2009*

## Topic: Renewable Energy

Students will explore advanced concepts in alternative energy, focused on the future of hydrogen fuel cell technology. They will 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. This session is designed around informative work sessions, hands-on laboratory experience, field trips, and expert guest speakers. The program emphasis is to demonstrate how math and science are used to create the designed world.



# Summer Program Application

Preferred Session:  June 14-19  June 21-26  July 12-17  July 19-24

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip code \_\_\_\_\_

Phone \_\_\_\_\_ Alt. Phone \_\_\_\_\_

Date of Birth \_\_\_\_\_

Parent Email address \_\_\_\_\_

School & District Name \_\_\_\_\_

Grade Fall 2008 \_\_\_\_\_ Current GPA \_\_\_\_\_

T-Shirt Size (circle one): Child's - S M L Adult's - S M L XL

MSMSP Camp you attended last year (circle one):

CSU Metro Fort Lewis None

Ethnic Background (circle all that apply):

African American

Asian American

Native American, Tribal Name \_\_\_\_\_

Other, please specify \_\_\_\_\_

Caucasian/White

Hispanic/Latina

U.S. Citizen (check one): Yes \_\_\_ No \_\_\_

If No, are you a U.S. resident: Yes \_\_\_ No \_\_\_

Gender (check one): Female \_\_\_ Male \_\_\_

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 (address to Aaron Benally)
3. \_\_\_ Letter of recommendation from teacher or counselor.
4. \_\_\_ Copy of transcript or last report card.

Submit all of the above to your School District's RM-MSMSP Contact Person listed below, no later than April 17, 2009

Adams County 14: Lara Eddy

Brighton: Cynthia Ritter

Elizabeth: Mary Anne Fluey

Englewood: Scott Wallace

Gilpin County: Alexis Donaldson

Jefferson County: Gwen Stroup

Mapleton: Jackie Kapushion

**Applicant:** I certify that all information is correct and complete.

Signature \_\_\_\_\_

Date \_\_\_\_\_

**Parent/Guardian:** I hereby grant approval for my son/daughter to participate in the 2009 RM-MSMSP summer program.

Signature of parent/guardian \_\_\_\_\_

Date \_\_\_\_\_

**June 14-19, 2009**

*For middle school students; grades 6-8 in Fall 2009*

## Topic: Climate Change

Using an interdisciplinary approach, students will have a chance to become experts on Clouds, Climate and Weather. They will learn how to "do science" by using observations and experiments, and will develop their abilities to critically question topics in weather and climate. Such questions as "Do cities affect the weather?" "Can it really rain fish and frogs?" and "Hey, what is the greenhouse effect after all?" will be answered. Various learning strategies using art, storytelling, play writing, poetry and video creation will be used to help students discover the secrets. The program's emphasis is on how exciting and rewarding this area of study can be, and how they can apply their advanced knowledge of Clouds, Climate and Weather in their future.



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