



LS CO-AMP COMMENTARY

SPRING 2004

ASC College Professors Provide Mentoring for CO-AMP Students

Mike Garcia, Director Upward Bound, Adams State College



Denise Davis, an Adams State COAMP Student, majoring in Chemistry, with her mentor Frank Novotny

Several of the CO-AMP students have been participating in internships during the 2003-2004 academic year. Some of the students serve as assistants in the Chemistry and SMT computer labs. Additionally, the students assist the faculty in developing and implementing events such as the San Luis Valley Science Fair and the SLV- Wide Chemistry Presentations. The faculty serves as mentors for academic related skills, each student paired with a faculty member according to major. Through this mentoring program, students also develop success processes including: 1) identifying support persons, 2) on-going self-appraisal, 3) understanding and working within the collegiate system, 4) participating in leadership roles, and 5) understanding the importance of preference for long-range goals to short-term or immediate needs.

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School of Mines Professional Development Weekend

Lydia Muwanga, MEP, CSM

Colorado School of Mines Minority Engineering Program (MEP) hosted the annual Professional Development Weekend (PDW) on January 16-17, 2004. Students from MEP and SWE (Society of Women Engineers) first marketed themselves, then were recruited by participating companies; Schlumberger, Holcim, Xcel Energy, Bureau of Reclamation, Chevron Texaco, and Accenture. The teams competed by displaying their creativity in group competition skits, as well as individual competition resume writing and quizzes.

Everyone had a good time, learned a lot, and the weekend was a great success. The subject matter is on a rotational period of three years, so students can return from year to year and learn something new each time.



CSM Top Eight Students Overall: Adam Estrella, Gerard Clayton, Mitesh Pradan, Christina Felder, Regina Wong, Jennifer Nekuda, Allison Adams, Debbie Li



TSJC students Jana Creary (top) and Robert Santistevan (bottom)

TSJC CO-AMP Interns Present Research

Ron Rankin – TSJC Faculty
Trinidad State Junior College CO-AMP research interns will present results of their current research this spring. Robert Santistevan and Jana Creary have both worked on biological research under the supervision of TSJC biology professor Ron Rankin. Santestevan will travel to Las Cruces, NM in March to participate in the Fourth Southwestern Rare and Endangered Plant Conference, where he will present research on the rare Canadian River Spiny Aster. In April, both Santistevan and Reary will participate in the TriBeta Regional Biology Conference at Colorado State University- Pueblo. Creary will present research dealing with bighorn sheep lungworms.

CSU AISES Chapter and The Little Shop of Physics Visit the Navajo Nation

Ty Smith, CSU AISES Chapter Advisor



CSU AISES President, Teresa Cox, helping participants understand a science exhibit

While most college students were planning on visiting the sandy white beaches during spring break, the Colorado State University American Indian Science & Engineering Society (AISES) Student Chapter's thoughts were on community and reaching out to K-6 students. On March 22, 2004, the CSU AISES chapter sponsored

and participated in a visit by the Little Shop of Physics to Ojo Amarillo Elementary School on the Navajo Nation in Northwest New Mexico.

Throughout the day, over 300 K-6th grade students and their teachers had the opportunity to enjoy the hands-on, applications of physics. In addition, Little Shop of Physics staff and AISES members held a teacher workshop to enhance science curriculum at the school. Teresa Cox, senior at CSU and president of AISES, says, "I am excited to be working with such a well known program. Brian Jones (*Director of the Little Shop of Physics*) does some exciting work, and I think that we have a lot to share with this outreach mission".

The Little Shop of Physics is a traveling science museum whose exhibits are designed and built by undergraduate students at CSU. The CSU AISES Chapter provides support to American Indians and Native Alaskans pursuing studies in Science, Engineering, Business, and other academic arenas.



CSU AISES graduate student Carmen George assisting elementary students

CU Colorado Springs Challenges Middle School Engineers

Tina Moore, Director, Office of Student Support

The University of Colorado at Colorado Springs hosted the Annual Engineering Challenge for middle school students from 1-4 p.m. on February 27, in the Engineering and Applied Science Building.

More than 500 middle school students from across southern Colorado competed in events including students from the following schools: Carmel, Challenger, Creekside, Eagleview, Falcon, Fountain, Freed (Pueblo), Horizon, LewisPalmer, Monument Academy, Mountain Ridge, North, Skyview, Woodland Park, and Vineland (Pueblo).

The events, held in connection with National Engineers Week, were designed to bolster student interest in math, computer science, structural design, physics and model rocket building. Each school entered a three-member team in each of the five contests. First, second, and third-place medals were presented, along with random drawing prizes, at the awards ceremony that followed.



Middle School students participating in a water retention design contest

The student contestants applied problem-solving skills to the contests that were designed to foster teamwork, as well as design, analytical, and creative skills. Events included building a device to retrieve an egg, designing a device to retain water when dropped, a timed math contest focusing on geometry and pattern recognition, a rocket-building contest, and a timed computer logic contest.

The event was sponsored by the College of Engineering and Applied Science, the CU-Colorado Springs National Society of Black Engineers (NSBE), the CU-Colorado Springs Society of Hispanic Professional Engineers (SHPE), The CU-Colorado Springs Society of Women Engineers (SWE), and the Colorado Alliance for Minority Participation (CO-AMP).

ASC COAMP Mentors

(cont'd from front page)

In addition, other retention services have been provided this year for the students. They are as follows:

1. Tutoring – Provided in collaboration with ASC Academic Enrichment Center.
2. Activity Incentive Stipends - The stipends are intended to stimulate participation in SMT activities. The students earn their stipends by attending such activities as lectures, joining clubs, participating in tutoring, internships, and other activities, which enhances their education.
3. Scholarships - The scholarships offered by CO-AMP are intended to assist the senior students in graduating on schedule. Many times the seniors are required to hold two jobs in order to finance their education. These scholarships help alleviate this hardship. The students reduce their employment workload in order to increase the time they have to concentrate on their studies.
4. Student Organizations – Financial support for students attending STEM related conferences.

Students as Leaders in Science Active at Colorado State University

Arlene Nededog, Director of Retention, College of Natural Sciences



CSU SLS students at the College of Natural Sciences Awards Reception

The Students as Leaders in Science (SLS) organization has had an extremely successful academic year at Colorado State University. The purpose of the organization is to provide students with academic excellence and leadership opportunities to excel in the field of science.

For the 2003-2004 year, the organization's goals were to recruit new members, continue networking activities with science faculty and participate in community outreach and service. For the 2003 fall semester, the Executive Board is excited to report that 97 students have been involved in the activities of the organization. Many of the students involved have been from the underrepresented group, diverse in both ethnicity and gender. Additional highlights include the "Welcome Back Program" for new and continuing students and the "Fall Faculty/Student-Networking BBQ". SLS students were also recognized at the College of Natural Sciences Awards Reception, receiving SLS Assistantships.

SLS has hosted a variety of workshops for science students. Two of the outstanding workshops were "Strategies for Resume Writing", conducted by the College of Natural Sciences Career Center Liaison, Judy Brobst and "Writing Your Personal Statement", by Associate Professor Sarah Sloane, Director of the Writing Center.

During the spring 2004 semester students will be involved in community outreach and service projects.

The first community outreach and service project completed was volunteering at the Open Door Mission. Additional activities for Spring 2004 include working with El Centro Student Services, Math, Science and Technology Day for elementary students and hosting a faculty /student-networking luncheon for selected faculty in the sciences.



CSU Psychology Majors Brad, Maria, and Amanda with Erine Chavez, Dept Chair



JETS-UNITE

Tricia Wright, COAMP Asst., CSU

The JETS UNITE Summer Bridge Program, supported by the U.S. Army Research Office, is designed to provide a smooth transfer from high school to college, providing an opportunity for students to learn about Colorado State University and the U. S. Army/ROTC, while having fun with learning.

The Summer Bridge Program is a 4-week summer research experience at CSU where students will conduct hands on research and gain experience in engineering with faculty members. They will also prepare a poster presentation and demonstrate their research findings in a symposium at the end of the 4 weeks.

The program will take place at CSU from July 5, 2004-July 30, 2004. There are 20 spots available for high school students to participate in hands on activities from 5 different courses. These courses include Engineering Math, Intro to Computers, Engineering Applications, Critical Thinking and Speech, and Intro to Physics.

AISES National Conferences

Dar Gurr, COAMP Assistant, FLC

Fourteen students from Fort Lewis College attended the AISES National Conference on November 20-22, 2003 in Albuquerque, NM where two students presented their summer research. Many of the students also found internships for the summer through the AISES Career Fair. Eight students also attended the Leadership Conference, held February 19-22, 2004 also held in Albuquerque NM. This was an opportunity for some students to be peer mentors or mentees for the second time.

One of the sessions that stood out was the networking, icebreakers to build "teams" session, and the session deemed most memorable by the students was called "Career Preparation". They felt the techniques and tools they learned gave them insight on the special skills and key points they will need to utilize for keeping the attention of an audience and to make presentations fun and interesting.

Shanah Harvey, the AISES president, mentioned "It was great that the sessions had everyone networking, getting our own group of students to become better leaders and a more family oriented organization."

"I am so proud of each and every one of these students for taking time to learn about emerging as leaders." – Dar Gurr



FLC Students at the Leadership Conference Banquet



Letter from the Director

Dr. Omnia El-Hakim



It's no surprise that students with hands-on learning experiences have an advantage entering the professional world. Businesses are eager to hire graduates who can hit the floor running, bringing innovative ideas to the industry, and are ready to lead their coworkers in doing the same.

One of the CO-AMP retention activities is Student Leaders in Engineering (SLE), a program designed to provide women and minority students in engineering with opportunities to work individually, or in teams, as research assistants with senior engineering faculty. Upon completion of the program, students graduate with leadership skills and research experience, valuable to their careers.

Students gain leadership qualities by attending local and national conferences, as well as workshops and other functions throughout the year, where they present their research findings. They also present to engineering faculty and staff at the end of the academic year. SLE students not only gain paid work experience and practical knowledge, but also learn how to get a job or to continue their graduate education when their SLE experience is done. Moreover, students enhance their academic achievement, communication and interpersonal skills, maturity and sound judgment, and demonstrate clear, well-planned goals.

Konrad Gojara, a former SLE student who received a 2000 B.S. and 2003 M. S. in Electrical Engineering, says, " I would strongly encourage other engineering students to participate in the SLE program. The SLE program gives undergraduate students an opportunity to learn and work in a research environment. This experience exposed me to research and was a big factor in my decision to pursue a graduate degree."

Upcoming 2004 Events

May 31-July 30: PEAKS Undergraduate Research Opportunity at CSU. See website for details: <http://lamar.colostate.edu/~agep>

July 5-30: JETS Unite Summer Bridge Program at CSU. Contact Omnia El-Hakim or Aaron Benally for more information call 970 491-4357. **Applications due April 9, 2004.**

June 6-July 10: (CIT) Colorado Institute of Technology Summer Bridge Program. Contact Omnia El-Hakim or Aaron Benally for more information at 970 491-4357. **Applications due by April 9, 2004.**

Learning is not attained by chance. It must be sought for with ardor and attended to with diligence. --Abigail Smith Adams