

## Access to Excellence

Domain 2 Meeting  
College of Science and Math  
January 30, 2007

In attendance: Group Leader Jerry DeMers, Jimmy Doi, Kate Riley, Seth Bush, Mike Sutliff, John Keller, Pat Fidopiastis, Norb Longtin, Kaylene Wakeman.

Domain 2: Connecting to P-12 Schools and to Community Colleges

Discussion Results:

### Strengths

- The P-K-12 Council is being resurrected in the county to recreate connections with public schools.
- The California Mathematics Project (CMP) and the California Science Project (CSP) have created partnerships with area teachers in the areas of Mathematics and Science.
- Grants have been obtained to establish collaborations with public school teachers through professional development institutes. The California Mathematics and Science Partnership (CaMSP) grant has helped target mathematics and science teachers in the Santa Maria area.
- A component of the CaMSP grant, Teacher Apprentice Project (TAP), has been developed to place Cal Poly undergraduates majoring in Mathematics, Science, or Engineering in Santa Maria as tutors. This project originally was intended to recruit community college (Cuesta and Hancock College) undergraduates too.
- Other local schools have asked for Cal Poly TAP tutors to be placed at their schools as well; this request has not been met because of a lack of funding.
- Faculty in separate departments are single subject supervisors.
- Cal Poly is unparalleled in collaborations between Kinesiology, Mathematics, Science, English and Chemistry in teacher education and collaborations with the public schools.
- Partnerships have been developed with San Luis Coastal in Science and Mathematics and Kinesiology has maintained a consistent partnership since 1990.
- Statistics has also participated in the GEMS project which involved the development and implementation of a week long science, engineering, and math project for middle school children in SLO and Los Osos.
- Statistics has conducted workshops relating to teaching statistics for various audiences of high school and community college teachers.

- Statistics is currently in the process of contacting high schools in the Central Coast area and beyond to arrange guest lecture visits by our faculty. Similar outreach programs have been successful in the past.
- The county advisory board for the Single Subject Program has been at Cal Poly for 5 years, which has been very helpful in advising teacher education programs in science and math.
- Currently, the college is trying to streamline Community College curricula to integrate preliminary teacher training courses.
- Several departments offer institutes/workshops to K-12 teachers following guidelines based on state content standards. Institutes/workshops have been conducted to prepare individuals to be model teachers. Workshops contribute to collaborations with public schools in development of key content areas.
- Faculty in mathematics and science are involved in state-wide meetings regarding national and state issues in their specific content area.
- CSM departments have consulted with public school teachers in selecting appropriate textbooks for classes.
- There has been a tremendous amount of consultation with public school teachers throughout the state.
- Some departments have established local teacher advisory groups.
- Kinesiology, Chemistry, Physics, Science and Math have good connections with local schools.
- Teacher-in-Residence program is very beneficial. More funding is needed to expand this program.
- Currently seeking grants to recruit and include community college faculty with reaching out to public schools.
- Currently seeking grant collaborations with Cuesta College.

#### External Funding:

- Mathematics has the Robert Noyce Scholarship program to assist people in coming back to receive their credential.
- Mathematics has the CaMSP grant currently funded and will apply for continued funding this spring.
- Kinesiology has the Carol White Grant to address At-Risk students in the local community schools across the county.
- Statistics has a NSF grant for summer workshops that cater to local teachers.
- Kinesiology has NSF grant to support the ongoing partnership with Laguna Middle school in the area of technology and obesity prevention

#### Future Goals/Plans:

- Goals include expanding the recruitment of undergraduate majors in **Statistics, Physics, Biology, Kinesiology, Chemistry, Mathematics, and Engineering** to be placed as TAP tutors/mentors in local schools. This project strives to meet national and state needs in recruiting more

people into possible mathematics and science teaching careers; it offers Cal Poly (and possibly community college students) a positive hands-on experience during their undergraduate course work; it strengthens the bond between local teachers and schools that hopefully foster relationships that support placing student teachers at participating schools. Future goals are based on finding continued funding for the Teacher Apprentice Project.

- Chemistry has applied for a Teacher Retention grant; a sub-grant offered through the California Science Project
- Chemistry and Physics are collaborating to apply for a Robert Noyce Scholarship grant.

### Weaknesses

- Greater collaboration is needed with Community Colleges in the area.
- Not enough release time is available for CSM faculty involved in teacher education.
- There are geographic constraints that create difficulties in placing student teachers in SLO area. There is a need for a broader base of support for faculty who are trying to establish other public school connections.