The 1994 program marked the 15th summer of the precollege component of the Native American Mineral Engineering and Science Program (NAMES), partially funded by the DOE PREP grant.

A total of thirty-three 9th and 10th grade American Indian students participated in the program. The program was funded by industry and a Department of Energy PREP grant. In addition, the Navajo Tribe continued support of Navajo student participation through scholarship support of the program.

Unique components of the NAMES Summer Program:
- “hands on” laboratory and field site learning experiences
- minority role models - scientists, instructors, resident advisors, and tutors
- career presentations from scientists and engineers
- sessions focused on the college application process, choosing the right college, and test taking strategies for entrance exams
- study skills

Curricula

Curricular focal points were environmental science, supported by courses and labs in mathematics, technical writing, and chemistry. The 1994 summer program was the second year of the environmental science focus. Each of the courses in this exciting, new initiative were taught by a member of the New Mexico Tech faculty in the corresponding department. Students had study sessions guided by a team of eight New Mexico Tech student tutors.

Students selected a topic and work in groups of four on a library research project supported by laboratory experiences, relevant field trips, speakers and course work in environmental science, mathematics, and technical writing. Students chose topics relevant to New Mexico such as Coal Mining, Landfills, and Tribal Water Rights. They were required to collaborate on a ten page paper, and present posters for a science fair held at the end of the program.

The environmental component covered four topics during the month-long program: Drinking Water, Waste Water, Solid Waste Pollution, and Mining Reclamation. Environmental science labs were two and one half hours in length. Students participation in weekly labs were designed to complement the class lectures. Each afternoon students participated in a hands-on laboratory in mathematics working in small groups on problems you can actually construct and “see”. This mathematical modeling offers
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students that much needed opportunity to experience first hand the relevancy of mathematics to their daily lives.

The English curriculum was based on developing skills in technical writing. Classroom activities included instruction in content, format, language, structure, organization, and development of specific writing assignments. Typical assignments included a research proposal, research techniques, laboratory reports about chemistry and geology labs, and collaboration on a ten page paper with three other students presented on the last day of class.

**Recruitment & Selection:**

School districts in New Mexico with a minimum of 25% minority population enrollments and/or low income populations were the primary targets for the selection of students. Throughout the academic year, the program director and other staff personnel visit schools in such districts to make classroom presentations regarding the summer program and to arouse interest in attendance. In addition, participants in the New Mexico Mathematics Engineering Science Achievement (MESA) Program were encouraged to apply. The program participants were selected for the summer program based on the following criteria:

1. American Indian, Hispanic, and African American students, or Anglo female students,
2. Freshman or sophomore high school level with overall grade point average of B,
3. Satisfactory completion of academic units in science, mathematics, English, and other college preparatory courses appropriate for their grade level,
4. Recommendations from math and science teachers,
5. High potential, highly motivated students in math and science were encouraged to apply, Interest in these subject areas can be displayed through persistence in such arenas as personal hobbies and science fair projects.

Selection of students was completed by a committee consisting of program staff and faculty. Students who expressed interest in exploring careers in the targeted disciplines and had achieved an appropriate level of academic preparation and performance were given the highest priority for inclusion. In the final selection, geographic distribution and ethnic group balance were taken into consideration.

**Program Faculty and Staff**

Instructors in the 1993 summer program had from one to six years experience teaching in the program. Instructors demonstrated enthusiastic support for the program and for the student participants.

The summer program was under the direction of Cindy Salazar, Coordinator of Minority Programs at New Mexico Tech. Ms. Salazar had extensive experience working with
minority students both at the precollege and college level.

Faculty participants were:
Clyde Dubbs, Mathematics
Lynn Deming, Technical Writing
Soran Talabani, Environmental Science
Michelle Cash, Environmental Science

Student Group Leaders were:
Elizabeth Oliver
Dawn Rubulotta

Program Goals and Accomplishments:

The overall goal of the project was to encourage a greater number of the targeted high school students to acquire the necessary skills to succeed in rigorous college academic programs and to enter science-based disciplines. Students participating in the program were involved in a rigorous daily academic program of formal instruction. Participants lived in the residence halls and participated in many aspects of college life, including planned recreational activities. Students were also involved in academic year activities to maintain a heightened awareness and interest in science-based fields.

These goals were met and the program was judged to be a success.