Gateway to the Stars...and to Careers on the Big Island

The Akamai Observatory Short Course students spent the day on Mauna Kea touring observatories and appreciating the altitude.

By Kim Cape Tait

That's what is offered to the seventeen local students who are involved in the Akamai Summer Internship Program, funded by the Center for Adaptive Optics (CfAO), a National Science Foundation Science and Technology Center in partnership with W. M. Keck Observatory. The program offers Hawaii university and community college students the opportunity to see and participate firsthand in the work of the Mauna Kea observatories, and is an expansion of the Akamai Maui Program where students are placed in the high tech industry on Maui. Akamai draws students primarily from astronomy, physics, electrical engineering, electronics, and computer science.

The members of this year's group hail from University of Hawaii at Hilo and Manoa, Hawaii Community College, Maui Community College, as well as one Hawaii resident studying on the Mainland. They are a diverse group of energetic, goal-oriented students aspiring to gain knowledge in their fields and perhaps open the door to careers here at home in Hawaii. One of the interns, Pearl Yamaguchi, a senior at UH Manoa, says that it was not until she became involved with the Akamai program that she really considered it a viable option to pursue a career in her field in Hawaii. A career in Electrical engineering.

Eleven students begin their individual internships at five different Mauna Kea observatories on June 13th after having completed what is called the Akamai Observatory Short Course. The Short Course was a week long intensive during which the interns, under the direction of lead instructor David Le Mignant, a scientist at Keck Observatory, engaged in activities designed to prepare them for the work environments with their individual mentors. The short course was a collaborative experience drawing on the resources of the astronomy industry. Instructors included engineers and scientists from observatories who donated their time, as well as support personnel from the CfAO.

Pearl Yamaguchi and Vinya Agibu, student interns with the Akamai Observatory
The course included a day at the summit, and an optics laboratory activity in which the interns grappled with questions about lenses, mirrors and light, all relevant to the work before them. Students work as scientists work, designing their own investigation to answer their question and then presenting their results to peers. Instructors, who have all completed a science education workshop developed by the CfAO, guide them in their inquiry, helping students learn the practical skills needed to be a successful scientist or engineer.

An intriguing aspect of the course was the culture talk given by Kepa Maly on the second day of the program. Kepa arrived at Keck Headquarters in Waimea, which hosted the Akamai Program for its first two days and will be the home base for four of the interns, and was introduced by Keck’s director, Fred Chaffee. The Akamai students were joined by many Keck employees and their families to hear one of the Big Island’s most respected Hawaiian cultural historians discuss the cultural history and significance of the mountain and its summit in particular, now home to several observatories. Kepa gave a lengthy history of the mountain and called for the responsible stewardship of the land already in use by the various organizations.

One of the interns, Juan Velasquez, in talking with Kepa noted the affinity between the idea of Mauna Kea as a piko, or umbilicus, connecting the land with the heavens and the goal of the observatories, which is to understand and connect with the heavens. It was a refreshingly innocent suggestion and while Kepa acknowledged the apparent congruency, he gently guided the interns back to his charge for them: that they be aware, sensitive, reverent stewards of Puʻu o Kukahuaʻula, the Hill of Ku of the red (rosy)-hued snows. Certainly the inclusion of local members of the Hawaiian community is one way to begin to realize this vision. It was with this in mind that the Akamai Observatory Internship Program was developed. The excitement is in seeing Hawaii Island youth connected to the land and the endeavor of exploring the heavens through involvement in a program that offers knowledge, experience and a gateway to careers in their scientific fields at home, here in Hawaii.

For more information on the Akamai Observatory Internship Program please visit: http://cfao.ucolick.org/EOL or call Sarah Anderson, Hawaii Island Coordinator at 881-3839.