

Memorandum of Understanding
Between
The University of Hawai'i
And
The Hawai'i State Department of Education
And
The Mauna Kea Observatories
Regarding
Support and Development of the Mauna Kea Scholars Program

This Memorandum of Understanding (“MOU”) dated May 26, 2017 (“Effective Date”) is between the University of Hawai'i, the Hawai'i State Department of Education, and the Mauna Kea Observatories (each a “Party” and collectively, “the Parties”).

RECITALS

A. The Parties.

1. The University of Hawai'i (“UH”) is a co-educational public system of higher education in Hawai'i governed by the Hawai'i State Legislature and a Board of Regents, whose purpose is to serve the public by creating, preserving, and transmitting knowledge in a multi-cultural environment.
2. The Hawai'i State Department of Education (“HIDOE”) provides public education for all K-12 students in Hawai'i, and its vision is that all Hawai'i schools will offer safe and nurturing learning environments where all students can achieve high academic standards, attain skills necessary to reach their goals and meet their potential, and are contributing members of society.
3. The Mauna Kea Observatories (“Observatories”) is a well-established billion-dollar research complex that can provide significant resources on a lasting basis to help enable unique educational opportunities for Hawai'i's students.

B. The Mauna Kea Scholars Program (sometimes referred to as the “Program”), initiated by the Observatories, provides mentored access to select HIDOE high schools for students to conduct independent research using several Mauna Kea observatories.

C. Hawai'i, our island home and homeland of our host culture, provides a foundation for learning and empowering our students. As Hawaiian perspectives and ways of knowing are integral in creating Hawai'i leaders of tomorrow, the Parties will actively promote and apply 'Ōlelo Hawai'i, Hawaiian knowledge, history, and practices in learning environments.

D. Valuable expertise in developing 21st century educational curricula, consistent with various long range strategic plans, exists within the UH and HODOE.

E. The Parties foresee the need for innovative learning opportunities, particularly in science, technology, engineering, and mathematics (“STEM”) fields, to empower today’s students to become tomorrow’s leaders, teachers, scientists, engineers, entrepreneurs, etc., and see the expansion of the Mauna Kea Scholars Program as a means to fulfill these needs.

NOW, THEREFORE, the Parties set forth these non-binding terms under this MOU:

1. *Purpose of MOU.* The Parties will agree to establish a Working Group, populated by each Party with staff of its choice, that is tasked with:
 - Identifying and exploring options for STEM and cultural curricula development consistent with the educational goals and resources of the HODOE and UH, making good use of the Mauna Kea Scholars Program to maximize the educational opportunities these combined resources enable.
 - Developing a strategy for the overall advancement and development of the Mauna Kea Scholars Program, with the goal of expanding it markedly in the next few years through various means, including the Mauna Kea Scholars Telescope for Astronomy Research (“MSTAR”) Program.
 - Helping provide authentic, problem-based learning experiences for Hawai’i high school students that aid them in their college and career readiness.
 - Melding cultural and STEM education themes into a well-rounded multi-year program.
 - Utilizing the unique qualities of Hawai’i along with the scientific and cultural significance of Mauna Kea to create place-based educational opportunities for Hawai’i students.

2. *Working Group Tasks and Goals.* The Working Group, over the first year, will develop a strategy for making optimal educational use of the resources available, predicated upon the Mauna Kea Scholars Program. Topics for exploration include, but are not limited to:
 - Identify top-level Program goals, the schedule over which the goals could realistically be achieved, metrics for tracking progress, mechanisms for feeding back lessons learned into the Mauna Kea Scholars Program, methods of tuning different needs for different schools, identifying the long-term role of the Mauna Kea Scholars Program in the school system.
 - Assess a “Deep vs. Wide” balance for Program expansion. For example, should a citizen science program centered in exoplanets (wide) be structured or a directed research program (deep), or some combination?
 - Ensure that Native Hawaiian community perspectives are equally represented in all planning and decision-making processes for the Program, as Mauna Kea is an important cultural site.
 - Identify new/custom tools (e.g., web-based) needed to support student and teacher engagement in the Program.
 - Identify means of providing travel support for students to visit the summit of Mauna Kea as a part of the Program.
 - Identify technology needs for participating teachers and classrooms.
 - Identify needs, objectives, and options for workshops for teachers and mentors, and symposia for students to present their research projects and learning experiences.

- Support observing proposal development, data distribution, analysis, etc.
- Identify already existing and still-needed curricula in schools that mesh with the Mauna Kea Scholars Program.
- Advance in-class mentoring with further mentor training.
- Identify links between Next Generation Science Standards and the Mauna Kea Scholars Program.
- Determine how the Mauna Kea Scholars Program meshes (or collides) with other plans and initiatives.

In subsequent years, as needed, the Working Group will continue developing and monitoring the Program, identifying successes and changes needed to advance the Mauna Kea Scholars Program long-term.

3. *Common Commitments of Collaboration.* The Parties acknowledge that:
- a. No allocation or exchange of funds is required under this best effort, good faith MOU.
 - b. Each Party shall identify a single/lead point of contact tasked with organizing participation under this MOU in the Working Group.
 - c. The Working Group will brief leadership among the partners on a quarterly basis, identifying issues, challenges, and successes along the way and how leadership can best position resources to enable the success of the overall Program.
 - d. This MOU may be implemented through binding Memoranda of Agreements that will be separately negotiated and agreed to.

4. *Lead contacts for each Party.*

For the UH: Dr. Marianne Takamiya (Astronomy Dept. Chair, UH Hilo); Dr. Guenther Hasinger (Director, Institute for Astronomy, UH Mānoa)

For the HIDOE: Suzanne Mulcahy (Ass't Superintendent, Office of Curriculum Instruction and Student Support)

For the Observatories: Mary Beth Laychak (Canada-France-Hawai'i Telescope Outreach Manager; Working Group Chair).

5. *Term of MOU.* The duration of this MOU will be 5 years from the Effective Date, with the opportunity to extend it further through mutual consent at any point. Any Party may withdraw from this MOU with a 90-day advance written notice.
6. *Non-Binding MOU.* This MOU is not a legally binding agreement and no Party shall have any legal obligation or liability to the other Parties with respect to the matters set forth in this MOU, unless and until formal written legal agreements are executed by all Parties. Any Party may, without liability, terminate discussions with the other Parties on any of the matters set forth in this MOU at any time. Nothing in this MOU shall be deemed to constitute the Parties hereto as partners, joint venturers, employer and employee, or principal and agent.

IN WITNESS WHEREOF, the Parties have executed this MOU as of the date set forth above.

University of Hawai'i

By _____ Date: _____

Dr. David Lassner
President

Hawai'i State Department of Education

By _____ Date: _____

Kathryn Matayoshi
Superintendent

Mauna Kea Observatories

By _____ Date: _____

Dr. Doug Simons
Executive Director, Canada-France-Hawai'i Telescope Corp.