INSTITUTE DATES:
The 2016–2017 Ethnomathematics and STEM Institute includes an orientation, series of professional development workshops, and a weeklong summer immersion (attendance is required on all dates).
Orientation: December 10–11, 2016
Professional Development Workshops:
January 14, February 25, and April 1, 2017
Summer Immersion: June 5–11, 2017

MANDATORY PRE-INSTITUTE WORKSHOPS:
Potential participants must attend ONE of the pre-institute workshops on October 17–20, 2016. Neighbor island applicants participate online on October 24, 2016. Applications must be received by November 5, 2016. Selection is competitive and priority is given to K–12 special education and STEM educators. Please refer to the website for more information: http://ethnomath.coe.hawaii.edu

COST: FREE. Educators receive a small stipend, and may additionally obtain 6 PDE-3 HIDOE credits (pending approval).

For More Information:
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In Partnership With:
- University of Hawai‘i System
- State of Hawai‘i Department of Education
- Hawai‘i P–20 Partnerships for Education
- Polynesian Voyaging Society
- Pacific Resources for Education and Learning
- Pacific American Foundation
- University Laboratory School
- Kalaupapa National Historical Park

2016–2017 ETHNOMATHEMATICS AND STEM INSTITUTE

Funded by the U.S. Department of Education Elementary and Secondary Act (ESEA) Title II
with support from the UH Mānoa College of Education
In an effort to address issues of equitable and quality education, culturally responsive STEM (science, technology, engineering, math) pedagogy is explored across the State of Hawai‘i through the Mathematics Common Core State Standards, Next Generation Science Standards, and Nā Hopena A‘o. Now in its ninth year, the Ethnomathematics and STEM Institute brings together K–12 public, public charter, and private school STEM educators and University of Hawai‘i STEM pre-service educators to design and implement lesson plans grounded in the ethnic, historical, and cultural diversities of our state. This is accomplished through an orientation, series of professional development workshops, and a summer immersion.

The resulting research and practicum-based STEM lesson plans may be used by current educators to supplement curriculum and by future teachers as training material. According to the National Council of Teachers of Mathematics’ Statement on Equity (2014), “When we respect all students’ inventions, experiences, and applications of mathematics, we provide them with equal opportunity for access and achievement.”

The institute is committed to making high-quality professional learning relevant, contextualized, and sustainable. Past publications have been featured in print, online, and on the air at the Mathematical Association of America, UH Mālama Magazine, PBS Hawai‘i, Hawai‘i Public Radio, Pacific Business News, and Honolulu Star Advertiser.

### Field Studies
Institute scholars participate in field studies locations, such as: Waikalua Loko Fishpond in Kāne‘ohe, Ka Pa‘pa Lo‘i o Kānewai in Waikīkī, Ma‘o Organic Farms in Wai‘anae, Polynesian Voyaging Society, and Kalaupapa National Historical Park, Moloka‘i. Service learning is a critical aspect of the institute.

### Ka Papa Lo‘i o Kānewai
Kānewai is a cultural research and outreach program housed in the University of Hawai‘i at Mānoa Hawai‘inuiākea School of Hawaiian Knowledge. In the ahupua‘a of Waikīkī, it provides a culturally place-based learning center and a pu‘uhonua (sanctuary). Kānewai is a venue for cultural activities and hands-on experiential learning curricula grounded in STEM.

### Waikalua Loko Fishpond
Restoration and preservation of the 400-year old Waikalua Loko Fishpond is an opportunity to understand STEM principles as each stone is put back on the wall and each native plant takes root. Through a values-based, service-learning framework, we take an active role in preserving, protecting, and caring for our marine life. Participants help restore the fishing village, and in the process learn about STEM skills and the perpetuation and practice of fishing, seafaring, and main-

### Polynesian Voyaging Society
With a legacy of ocean exploration as its foundation, the Polynesian Voyaging Society is committed to undertake voyages of discovery; to respect, learn from, and perpetuate heritage through practice; and to promote learning which integrates voyaging experiences and values into quality, STEM education. Through traditional, celestial navigation and wayfinding (e.g., sun, moon, stars, tides, etc.), we learn how STEM is a tool to learn about real-world applications, share knowledge, and foster living well on our special islands.

### Kalaupapa National Historical Park
Kalaupapa, Moloka‘i was once a leprosy community in isolation, and now serves as a place for education, reflection, and contemplation. Here, past suffering has given way to personal pride about accomplishments made in the face of great adversity. Kalaupapa is a place where we can reconsider our responses to people with special needs. Moreover, it is a place where the land has the power to heal - because of its human history, natural history, and stunning physical beauty. Through first-hand STEM experiences, we learn about how these themes impact past, present, and future generations.