Item III.
Report of the President

UHM Faculty Senate Chair’s Report

http://prezi.com/0d7tlufvygwo/?utm_campaign=share&utm_medium=copy
The Educational Ecosystem
University of Hawai`i at Manoa

Research
The inspiration and generator of knowledge

Curriculum

Student Opportunity
- Engineering Student Ambassadors
- NSF CyberCorps Scholarship For Service (SFS) (ENG)
- VHP Vertically Integrated Project Program (ENG)
- MARC U*STAR (PBI)
- NSF Undergraduate Research for Minorities (URM)
- Cancer Center Research Internship
- UROP (UH)
- Native Hawaiian Science Engineering Mentors Program
- Study Abroad Program
- Marine Option Program

Integrating

Hawaiian Place of Learning

Outreach

Thank you contributors

Marguerite Butler
Chair, Mānoa Faculty Senate
The Educational Ecosystem
University of Hawai`i at Manoa

Research
The inspiration and generator of knowledge

Curriculum

Student Opportunity

Integration

Thank you contributors

Hawaiian Place of Learning

Outreach

Marguerite Butler
Chair, Mānoa Faculty Senate
Our Students

Our Students are diverse
- 13,000 UG Majors
- 67% Local Students
- 20% 1st-Generation College
- 63% Receive Financial Aid
- 30% Pell Grant Recipients

Choose diverse majors
- 13,000 UG Majors
- >100 Programs
- 17 Schools & Colleges

Supported by Course Offerings Across Colleges
- 5,000 Graduate and Professional Students
UHM trains a majority of Hawai`i's professionals

>50% of K-12 teachers & admin
50% of doctors
67% of library professionals

51% of state representatives
>50% of engineers
A majority of UH CC instructors
Our Students are diverse

13,000 UG Majors
67% Local Students
20% 1st-Generation College
63% Receive Financial Aid
30% Pell Grant Recipients

- Asian 36%
- Caucasian 23%
- Hawaiian/Pac Is 17%
- Multiracial 14%
- International 7%
- Hispanic 2%
- Black/Af Am 2%
Choose diverse majors

13,000 UG Majors

>100 Programs
17 Schools & Colleges

Supported by Course Offerings Across Colleges

5,000 Graduate and Professional Students
Research
The inspiration and generator of knowledge
### Education and Leadership to the State of Hawai‘i

<table>
<thead>
<tr>
<th>Unique Research Collections</th>
<th>Home to the Hawaiian, Pacific, and Asian Collections, supporting the University’s long-lasting commitment to research in those areas. The Hawai‘i and Pacific collections are the world’s largest.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Access Collections</td>
<td>Provides public access to important research materials and scholarly publications by UHM faculty, staff, and students through the Library’s digital repositories ScholarSpace and eVols.</td>
</tr>
<tr>
<td>Library Catalog Consortium</td>
<td>Maintains and supports the State’s largest library management information system for libraries in the UH System, the Bishop Museum, the Queen’s Medical Center, and the Honolulu Museum of Art</td>
</tr>
</tbody>
</table>

### Research and Teaching Support (FY16)

#### Access to Collections

- **1,271,132** Entrances into Hamilton & Sinclair Libraries
- **96,068** Print Materials Circulated
- **1,790,053** Full-Text Online Articles Delivered
- **7,614** Items Shared with Non-UH Researchers and UH System
- **25,108** Items Delivered to UHM from Other Libraries and UH System

#### Instruction and Reference

- **593** Instructional Sessions
- **7,129** Students Reached in Instruction
- **13,910** Reference Transactions
Creativity Inspires The Quest
Curriculum

New faculty (25 years) in Dept. of Microbiology
Teaches core courses; 800+ students in 8 lab sections
NIH-funded research on tuberculosis, provides research opportunities for 8-100+ students per year.

Active Learning
Project-Based Learning
Collaboration
Unit Mastery
"Flipped Classrooms"

ALL ACROSS MĀNOA

New Degree Programs and Designations

For Example:
- Pre-Engineering Program
- Computer Engineering Program
- IKE AD PONO (Nursing)
- STEM52 (Education)
- Molecular Cell Biology
- Marine Biology
Dr. Sladjana Prisic and some of her lab members

Newest faculty (2.5 years) in Dept. of Microbiology
Teaches core course: 200+ students in 8 lab sections

NIH funded research on tuberculosis, provides research opportunities for 8-10(!) students per year.
Active Learning
Project-Based Learning
Collaboration
Unit Mastery
"Flipped Classrooms"

ALL ACROSS MĀNOA
New Degree Programs and Designations

For Example:
- Pre-Engineering Program
- Computer Engineering Program
- IKE AO PONO (Nursing)
- STEMS2 (Education)
- Molecular Cell Biology
- Marine Biology
Student Opportunity

E.g.:
Engineering Student Ambassadors
NSF CyberCorps Scholarship For Service (SFS) (ENG)
VIP Vertically Integrated Project Program (ENG)
MARC U*STAR (PBRC)
NSF Undergraduate Research For Minorities (CNS)
Cancer Center Research Internship

UROP (UHM)
Native Hawaiian Science Engineering Mentorship Program
Study Abroad Program
Marine Option Program
UH FabLab – A Makerspace for All

• The FabLab
  • Where students create prototypes, work on multidisciplinary projects, do cutting-edge research, and form start-ups.
  • Shaping the Innovation and Entrepreneurship (I&E) culture on the UHM campus.
  • Provide rapid-prototyping equipment and methodology, which has resulted in UH projects winning business plan competitions and innovation challenges.
  • Bring the community and local innovators together in awareness of what UH students are able to accomplish.

• Participation in Fall 2016: ~200 students

“The FabLab encourages students to think creatively, as well as practically, in order to achieve innovations beyond the textbook.”

-- T. V. Robertson, MS EE 2016
Student Opportunity

E.g.:
Engineering Student Ambassadors
NSF CyberCorps Scholarship For Service (SFS) (ENG)
VIP Vertically Integrated Project Program (ENG)
MARC U*STAR (PBRC)
NSF Undergraduate Research For Minorities (CNS)
Cancer Center Research Internship

UROP (UHM)
Native Hawaiian Science Engineering Mentorship Program
Study Abroad Program
Marine Option Program
Study Abroad

- Research Intensive Experiences
- Curriculum supports Mānoa degrees
- 399 courses — 21 faculty — 321 students in 2016

- Freshman time to graduation – 4.5 years
- Transfers time to graduation - 3 years
Outreach

**K-12**
- Molokai and Lanai Math Day (CNS)
- Robotics Camp at UH iLab
- Geneious Day (CTAHR)
- Transit of Venus Waikiki Beach
- Programming workshops and hackathons
- Expanding Your Horizons for Young Women in Engineering High School Summer Internship
- SWE STEM days for Middle School
- Hawaii Keiki Program (Nursing)
- PreHealth Career Corps (JABSOM)

**Community**
- IFA Open House
- Physics Open House
- SOEST Open House
- Community Theater (several)
- Be a Scientist Night
- Hawaii H.O.M.E. Project (JABSOM)

**Teachers/ Professionals**
- HI DOE Science Teacher Education
- Math Teachers Circle of Hawaii
- Future of IT
- IT for Non-Techies
- SUPER-M (Educational Renewal in Mathematics)
- UH Translational Health Science Simulation Center
- CPA Review
- Accounting Workshops
Hawaiian Place of Learning

Hawai`inuiäkea School of Hawaiian Knowledge
- 100 Generations of ancestral wisdom to share with the world
- Over 75 courses in Ancestral Knowledge
- Malama Honua Proposed Curricula:
  - Traditional Navigation
  - Caring for Land & Sea
  - Hui `Āina Momona Food Sustainability
- Native Hawaiian Student Services provides counseling, financial aid, programming to 2700 Native Hawaiian Students at Mānoa

Nursing  IKE AO PONO  >360 Native Hawaiian, Pacific Islander and Native American nurses since 2003

JABSOM  Dept. of Native Hawaiian Health
Imi Ho`ola promotes NH students entry to medical school
Native Hawaiian Science & Engineering Mentorship Program

NHSEMP

- Supports recruitment, retention, and completion of Native Hawaiian students in STEM majors at UHM
- >$10M in extramural funding for student scholarships, internships, and research;
- >80% of graduates directly enter STEM workforce, graduate school, or teaching pathways
- Multi-unit partnership between Colleges of:
  - Engineering
  - Hawaiinuikea
  - Natural Sciences
  - SOEST
  - CTAHR
Biodiversity in My Village Project
Hawai‘i Team May 2016
ULS Class of 2021. Butler Lab UHM Biology. Lyon Arboretum
Sponsored by the National Science Foundation
Thank you contributors

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Paul Mitri, Theater & Dance, AH
Brian Shevelenko, Theater & Dance, AH
Betsy Fisher, Theater & Dance, AH
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David Chin, ICS, CNS
Rich Gazan, ICS/LIS, CNS
Andy Taylor, Biology, CNS
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Catherine Chan, NREM, CTAHR
Krystyna Aune, Graduate Education

Joseph Mobley, Nursing
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Kelley Withy, JABSOM
Lisa Uyehara, College of Education
Christine Sorensen, College of Education
Hamid Pourjalali, School of Accountancy
Sarita Rai, Study Abroad Center
Mānoa “Brag Book”

A sample of programs at University of Hawai‘i at Mānoa
January 23, 2017

As faculty senate chair, I sent a call out to all Mānoa faculty senators asking what they wanted to share with the Regents about their programs. What follows is a sampling of their responses, from the 100+ pages of materials received.

Not all units are represented, but this summary covers a broad range of the programming representative of this Land, Sea, and Space-Grant institution.

The faculty were very excited to have the opportunity to share their work with you. We hope you find this informative.

Mahalo for the opportunity,

Marguerite Butler
Chair, Manoa Faculty Senate
The Department of Art and Art History trains artists and art historians. We work in collaboration with all of Hawaii’s cultural institutions such as the Honolulu Museum of Art, HiSam, Doris Duke Foundation for Islamic Art, and the Bishop Museum.

- Our alums occupy key positions in all major art organizations and make up a significant percentage of Hawaii’s art administrator, exhibition organizers, educators, consultants, etc.
- The department has two galleries and the John Young Museum of art, all free to the public, and a vibrant visiting artist/scholar program.
- The UH Design Workshop engages in expanded applied research and scholarship by providing graphic design services for non-profit organizations in Hawai‘i.
- MA students in Art History have curated exhibitions at the Honolulu Museum of Art, and BA/BFA students take part as interns as well as exhibit their artwork at Honolulu’s many museums and galleries.
- The Department recently completed Art At Large, a 180-foot mural project on Dole street executed by 13 UHM artists. [http://www.hawaii.edu/art/art-at-large/](http://www.hawaii.edu/art/art-at-large/)

Gaye Chan <gchan@hawaii.edu>
The College of Engineering produces professionals in high-demand fields for Hawaii’s infrastructure and technology innovation economy in Civil and Environmental, Electrical, Computer, and Mechanical Engineering. UHM Engineering Alumni are leaders in their professions, earning over 60% of recent awards by the Hawaii Council of Engineering.

- 1,047 undergraduates and 290 pre-Engineering majors, a 30% and 66% increase over the past 10 years, respectively, with 11,330 alumni world-wide.
- New Computer Engineering program grew to 96 students in just 5 years.
- Outreach to Hawaii high schools promotes STEM education via the Engineering Student Ambassadors (reaching 34,000 local high and middle school students in 4 years); and the Engineering Summer High School Internship provide a 6-week, full-time, mentored summer research program.
- Many Engineering faculty have federally-funded cutting-edge research in areas critical to the state, including: sewer infrastructure sustainability, transportation safety in rural communities, coastal infrastructure & tsunami resilience, cyber security, renewable energy and island sustainability. (NSF, EPA, USDOT, DOE).
- Dramatically increased number of Hawaiian students in STEM fields via the Native Hawaiian Science & Engineering Mentorship Program

Tao Yan, taoyan@hawaii.edu
Native Hawaiian Science Engineering Mentorship Program

- NHSEMP supports recruitment, retention, and completion of Native Hawaiian students in STEM majors at UH Manoa.
- >$10M in extramural funding for student scholarships, internships, and research;
- >80% of graduates directly enter STEM workforce, graduate school, or teaching pathways
- Multi-unit partnership between Colleges of: Engineering - Hawaiinuikea - Natural Sciences - SOEST - CTAHR

UHM Undergraduate Engineering Enrollment
Native Hawaiians
Fall 2001 - Fall 2015

Kahoolawe Island - Cultural Huakai

Freshman Bridge Intern
Information and Computer Sciences - College of Natural Sciences

ICS produces computer science professionals ready to take Hawaii into the new innovation economy.

- Over 400 undergraduate majors, 7 degree programs and a new program in Security Science (SecSci)
- UHM designated by the NSA and DHS as a National Center of Academic Excellence in Cyber Defense Research.
- ICS professors explore the cutting edge of science such as
  - Developing the world's highest resolution hybrid reality system for visualization research and teaching,
  - Investigating how social media affects political decisions and
  - Running 5 Mars habitat simulations on the Big Island.

David Chin chin@hawaii.edu

Library & Information Science Program within ICS/CNS

Approximately two-thirds of the professionals working in public, school and academic libraries and archives in the state of Hawaii are graduates of the UHM Library & Information Science Program, which has been continuously accredited by the American Library Association for 50 years.

Rich Gazan gazan@hawaii.edu
Library Services

Hamilton and Sinclair Libraries provide instructional and research support to the UHM and UH System communities, an international body of scholars, and the general public.

In FY 2016, through tens of thousands of interactions, Library Services delivered research and coursework support through:

- 593 instruction sessions, reaching 7,129 students
- 7,129 reference transactions
- circulation of 96,068 physical library materials
- online delivery of 1,790,053 full-text articles
- 1,271,132 entrances into Hamilton and Sinclair Libraries

Hamilton Library is also home to the Hawaiian and Pacific Collections, which respectively stand as the world’s largest library collections on Hawai’i and the Pacific. They embody the University’s longest-lasting commitments to Hawaiian and Pacific Studies.

Eleanor Kleiber <ekleiber@hawaii.edu>
Chair of the Library Senate

College of Social Sciences

The College of Social Sciences has twelve academic programs in Anthropology, Communication/Journalism, Economics, Ethnic Studies, Geography, Political Science, Psychology, Public Administration, Public Policy Center/Matsunaga Institute for Peace, Sociology, Urban and Regional Planning, and Women’s Studies.

- Among the largest colleges, teaches 15-20% percent of student semester hours and 10-15 % of degrees awarded.
- 27,100-plus alumni span 55 countries and all 50 states
- 7 out of 10 graduates employed within 6 months of graduation
- 95% of graduates are employed, continuing their education, participating in internships or other field experiences, or participating in volunteer activities
- Graduates work with some of the world’s greatest companies and institutions such as the United Nations, Seattle Children’s Hospital, Asian Development Bank, Booz Allen Hamilton, Texas A&M University, Cedars-Sinai, Asian Broadcasting Network, Rutgers University, UNICEF, U.S. Environmental Protection Agency, The Nielsen Company, and Harvard University
Theater and Dance trains students to excel in the techniques, craft, and diversity of theatre and dance; prepares students to work in academic, community, and professional theatre and related fields; and provides Hawai‘i audiences with a wide variety of high quality performances to enhance appreciation and understanding of Western, Asian and Pacific cultures.

- Students direct and write plays; choreograph dances; design lights, sound and costumes; and perform on campus, in the community and internationally.
- Students and faculty have won numerous awards locally and nationally, and present research at conferences throughout the world.
- Outreach is an area of great strength and focus for T&D. Students are deeply involved with community outreach, performing at schools, retirement homes, libraries, and other community institutions.
- Offers the only professional, graduate level training in Hawaiian and Pacific Island Theatre in the world.

Promo video:  https://youtu.be/LO6Oyq8BVT

Elizabeth Fisher <efisher@hawaii.edu>
Study Abroad Center

Students acquire knowledge through academic work in other countries and develop cross-cultural understanding through cultural immersion. Faculty in Study Abroad Programs teach, mentor, conduct research/scholarship and develop courses.

During the 2014-2016 academic years:

- 585 students studied abroad and enrolled in 734 courses at partner Universities overseas and completed their Manoa degree requirements.
- Time to graduation for Study Abroad students is 4.5 years, faster than average UHM student. SA serves students of all socioeconomic status.
- 39 instructional and research faculty taught and/or completed research abroad. These faculty members represented the following colleges/departments: Art, Asian Studies, Business, Communications, Curriculum Studies, Economics, Engineering, Ethnic Studies, Family and Consumer Sciences, Geography, History, Human Nutrition, Food and Animal Sciences, Law, Library Science, LLEA—French, Nursing, Physics, Plant and Soil Sciences, Political Science, Theater and Dance, and Women’s Studies.
- 25 Programs are offered in Asia, Australia, Europe, and South America
- Open to students across the UH System to earn Manoa credits.

Sarita Rai <sarita@hawaii.edu>
School of Nursing and Dental Hygiene (SONDH)

The SONDH provides an innovative, caring and multicultural environment in which faculty, students and staff work together to generate and transmit knowledge, wisdom and values to promote quality of life and health for present and future generations.

- Improved gender diversity with 21% men in our undergraduate nursing program, whereas the national average is 12%.
- IKE AO PONO has graduated more than 362 Native Hawaiian, Pacific Islander and Native American nurses since 2003. [http://www.nursing.hawaii.edu/IKEAOPONO](http://www.nursing.hawaii.edu/IKEAOPONO)
- 37% of UH Community College associate degree nursing graduates complete Bachelors degrees at UH Manoa. The Hawaii Statewide Nursing Consortium curriculum provides an efficient bridge to the baccalaureate for the RN. Available to students from Maui College, Kaua’i Community College, and Kapi’olani Community College. [http://www.nursing.hawaii.edu/bachelor/bsadn](http://www.nursing.hawaii.edu/bachelor/bsadn)
- UH Translational Health Science Simulation Center supports safe, quality healthcare for the people of Hawai’i by providing state-of-the-art continuing education for novice through expert nurses, nurse researchers, and all members of the health care team. [http://thssc.nursing.hawaii.edu/](http://thssc.nursing.hawaii.edu/)
- Partnered with Department of Education to place nurse practitioners in public schools to ensure students are healthy and ready to learn via the Hawaii Keiki program. [http://www.nursing.hawaii.edu/hawaiikeiki](http://www.nursing.hawaii.edu/hawaiikeiki)

Joseph Mobley <jmobley@hawaii.edu>
The Department of Microbiology trains professionals to contribute to understanding the role of microbes in human health, marine and terrestrial ecology, evolution, and biodiversity.

- 75% of faculty conduct federally-funded research in medical microbiology, environmental microbiology, microbial genetics, and bioinformatics.
- 170 undergraduate majors in two programs: BS and BA in Microbiology, and BS in Molecular Cell Biology, and two dozen MS and PhD graduate students.
- Research opportunities for dozens of undergraduates and high school students in tuberculosis and other health research of importance to Hawai‘i, exploration of the microbial diversity of our islands and ocean, and genome sequencing.
- Our graduates enter public and private laboratories in environmental and clinical microbiology, and join training programs for dentistry, nursing, and physicians, or work in conservation, administration, aquaculture, industrial microbiology and biotechnology, bioinformatics, and teaching.

Stuart Donachie <donachie@hawaii.edu>

Vanessa Zepeda, undergraduate discovered new bacterium from anchialine pond on Southeast Is., Pearl and Hermes Atoll, Northwestern Hawaiian Islands.

Discovered and Named by ‘Iolani student Iris Kuo
Department of Geology and Geophysics (SOEST)
http://www.soest.hawaii.edu/GG/

The Department of Geology and Geophysics (GG) trains the next generation of professionals in geotechnical and environmental consulting, water resources, natural hazard mitigation, climate change adaptation, natural resource exploration, renewable energy development, and STEM education.

- Researchers produce 75-100 scientific publications annually, bringing in $1.5-$3M/yr of extramural funding into the state.
- Examining the impacts of climate change and sea level rise, such as how fast Hawaii’s beaches are eroding and future inland flooding.
- Addressing Hawaii’s freshwater conservation efforts and water quality problems; studying how contaminants seep into the ocean and impact coastal habitats.
- Leading seagoing expeditions to study earthquakes, tsunamis, submarine volcanoes, and deep sea food chains.
- Providing unique learning experiences for students through field exploration in Hawaii and around the Pacific. Nearly all GG graduate students are supported on extramural grants and lead research projects.

Garrett Apuzen-Ito <gito@hawaii.edu>

Undergraduate Trista McKenzie wins award from American Geophysical Union for work related to the Fukushima nuclear disaster.

Computer model of Honolulu groundwater salinity

“Active earth” kiosks in elementary schools

Undergraduate research on impact of sea level rise on coastal communities

Ewa Beach

Kammie Tavares, Makaha
Hawai‘inuiākea School of Hawaiian Knowledge

Hawai‘inuiākea School of Hawaiian Knowledge (HSHK) is the largest Indigenous Studies School in the World, leading UHM in creating a Native Hawaiian Place of Learning.

- HSHK has trained a majority of Hawaiian Studies and Hawaiian Language faculty on the 10 UH campuses.
- Offers 75 classes in Hawaiian Ancestral Knowledge to 4,700 students annually
- Research projects in Hawaiian Newspaper Translation provide and Food Sustainability provide access to unique cultural materials and knowledge.
- Native Hawaiian Student Services (NHSS) provides counseling, tutoring, academic advising, financial aid, and programming to all 2,700 Native Hawaiian students at UHM or 15% of the student body [largest number of NH students in all 10 campuses]. NHSS has been awarded $11 M in Title 3 grants.
- Developing Malama Honua curricula to meet student needs and statewide interest in Traditional Knowledge, Caring for land & sea, and Food Sustainability.

Video of HWST675 class visit to Tahiti temples  [https://youtu.be/YPyFDL8NE](https://youtu.be/YPyFDL8NE)

Lilikala Kameʻeleihiwa <lilikala@hawaii.edu>
John A Burns School of Medicine

JABSOM is among the first in the nation to adopt a Problem-Based Learning curriculum, now almost all medical schools in the country use this a primary teaching modality. About half of the physicians in Hawaii are graduates or affiliates of JABSOM.

- 269 medical students per year, with 244 post graduates (in residencies); JABSOM supports an early acceptance program, provides post baccalaureate training to 12 disadvantaged students, trains 23 students in Medical Technology, and has 149 students in graduate programs in Communication Sciences and Disorders, Cell and Molecular Biology, Clinical Research, Developmental and Reproductive Biology, Tropical Medicine, and Neuroscience.
- Outreach to 4,000+ K-12 students a year, trains hundreds of teachers and provides medical services for homeless individuals across Oahu.
- Research activities include neuroscience, immune system, natural product development, drug development, toxicology, parasitology, virology, cell stress, analytical chemistry, organic chemistry, monoclonal antibody production, cancer and Zika research.
- Ranked #1 in the nation for retention of combined MD and Resident alumni practicing in state, #1 in NIH research awards among community-based public medical schools and #19 in the country for primary care.
- First medical school in the country to have a clinical department of indigenous health.

Kelley Withy <withy@hawaii.edu>
Department of Biology - College of Natural Sciences

The Department of Biology produces professionals for successful careers in biosciences, health care, sustainability, and education. Faculty conduct basic and applied research in ecology and evolution, marine biology, sensory physiology, behavior, and genomics.

- Over 1000 undergraduate BS/BA majors in Biology and Marine Biology; undergraduate enrollment increased by 300 students with new Marine Biology program; >70 graduate students MA/MS/PhD in Zoology and Marine Biology; 75% of Marine Biology graduate students have fellowship or grant support.
- Partners in interdepartmental programs: the Mathematical Biology undergraduate certificate, the Marine Biology Graduate Program and the Ecology, Evolution and Conservation Biology graduate specialization.
- Core courses serve 34 undergraduate degrees in 8 colleges; non-majors course serves >500 students annually
- We conduct cutting-edge life sciences research in fields ranging from genomics and bioinformatics, the evolution of development, biodiversity, to coral reef ecology and conservation. Our fieldwork spans the tropics to Antarctica.
- 50% of the faculty have extramural funding from NSF, NIH or NOAA; most faculty provide research experiences for undergraduates as well as graduate students and via an NSF-funded Research Experiences for Undergraduates summer program
- Deeply committed to enhancing student success through student engagement:
  - Marine Option Program offers an extensive program of research opportunities, courses, and extracurricular activities
  - Life Sciences Advising provides complete academic advising within the department as well as workshops and social activities
  - Leadership for the College of Natural Science's Residential Learning Program

Andrew Taylor <taylor@hawaii.edu>
Marine Option Program

MOP is a certificate program offering marine-related research opportunities and experiential learning curricula to students of all majors on all UH campuses who have an interest in the ocean.

- Serves 200 students enrolled at Manoa, 90 at UH-Hilo, 83 students at Honolulu, Kapiolani, Kauai, Leeward, Windward CC, and Maui College. MOP serves students in more than 30 different majors. About 66% of our students are out-of-state.
- New programs launching at American Samoa Community College and University of Guam.
- Students spend two weeks in summer on Kona reefs training in diving and leadership skills in Quantitative Underwater Ecological Surveying Techniques (QUEST). Other unique opportunities: Maritime Archaeology Surveying Techniques (MAST), Marine Underwater Techniques (MUT), and Motorboat Operator Certification Course (MOCC).
- Provide a wide range of research and internship opportunities with UHM faculty and programs such as the Hawaiian Islands Humpback Whale National Marine Sanctuary Ocean Count, Papahanaumokuakea Marine National Monument, NMFS Turtle Stranding Program, DLNR-DAR aquaculture facilities, and Dolphin Quest.
- MOP alumni work in most federal & state marine resource management agencies in Hawaii.

Cynthia Hunter, <cindyh@hawaii.edu>
College of Education

The College of Education prepares future leaders in education, including the majority of Hawaii’s teachers and administrators. Departments and research units offer teacher professional development in STEM, special education, technology, and cutting-edge literacy improvement methods.

- Consistently rated among top 100 Graduate Schools of Education
- >97% of COE graduates pass teacher certification exams (Praxis I & II)
- 97% of employers are satisfied with our graduates saying they are “more skilled to meet the demands of Hawaii’s public schools than any other local college graduates.”
- Project Ho’oku’i (28 K-12 schools) transitions Native Hawaiian and at-risk students to college success
- Teaching students and practicing stewardship in sustainability and environmental awareness through Mālama Honua project with worldwide voyage and others
- Innovative new programs in STEM, online teaching, technology for K-12 teachers, teacher leadership, and literacy specialist
- Continually innovating delivery with 3+2, online, hybrid, and evening options available

Lisa Uyehara, <uyeharal@hawaii.edu>

STEMS²
Earn your MEd in 13 months and explore Hawai‘i

STEMS² is the integration of Science, Technology, Engineering, Math, Social Science and Sense of Place

See the world through multiple lenses by engaging in interdisciplinary work.
(i.e. art, biology, engineering, Hawaiian studies, language arts)

Cohort 3 begins Summer 2017

Bring real-world problem solving via project-based, place-based learning within a social context to your teaching & learning space.

Learn more @ http://bit.ly/stems2
e: coegrad@hawaii.edu

Ethnomathematics & STEM Institute
Funding: NSF, U.S. DOE, UH SEED
The SOA produces accounting professionals for a technologically advanced global economy, advances accounting knowledge through research, and fosters a culture of moral and ethical professional obligations to society.

- Dedicated to continually improving curriculum including PhD program with input from downtown professionals, legislature, and other stakeholders to educate a highly-qualified accounting workforce.
- Guided by an Advisory Board of professionals, a legislator, and a regent.
- Offers professional development workshops and classes to keep Hawaiʻi’s professionals at the forefront, such as “IT for Non-techies”, Free CPA review, “Future of IT and Accounting”
- Award-winning students and faculty, building a community of “SOA pride”
- CPA passing rate has dramatically improved
- Students receive practical knowledge from interactions with local professionals
- Job placement has dramatically improved with 100% placement in 2016.
Department of Physics and Astronomy (CNS)

Physics and Astronomy develops in our students an appreciation for fundamental physics knowledge, critical and innovative thinking, and science ethics to promote a responsible citizenry. Our faculty and students pursue research that expands our understanding of the laws of nature.

- Ranked top 12th physics program in the US by the National Research Council in 2010.
- Half of our tenured/tenured-track faculty members won national and international recognition within the past 5 years - Wilson Prize, DOE Early Career Award, 3 NSF CAREER awards, Breakthrough Prize, Lamb’s Medal, APS’s Instrumentation Award in Particle Physics Experiment. Our extramural funding averages $3.5M/year.
- Teach ~ 10,000 SSH annually to a diverse array of students across campus, including many required courses for STEM majors.
- Advise ~ 100 undergraduate majors in Physics, Astronomy, and Astrophysics, and ~ 40 graduate students.
- Explore innovative instructional techniques to improve student success - active learning, Peer-to-Peer mentoring, Learning Assistant, and context-rich problem solving recitations.
- Active in outreach programs: Annual Hawaii Physics Olympics and Bridge Building Contests, Annual Physics and Astronomy Open House, Quarknet, which involves high school teachers and their students in state-of-the-art experiments, “Increasing high school students’ digital literacy by building computers”.

Pui Lam <plam@hawaii.edu>
UH Cancer Center

The UH Cancer Center works to reduce the burden of cancer in Hawai‘i, via research, education, clinical trials oversight and community outreach.

- Designated as a National Cancer Institute Cancer Center since 1996, a recognition limited to the top 4% of all U.S. cancer centers.
- Mentored over 250 trainees in 2011-2016: 12% high school, 34% undergraduate, 26% graduate, 21% postdoctoral, and 7% medical students, involving ⅔ of the faculty.
- Faculty lecture and serve on student committees in many Mānoa programs: Public Health, Cell and Molecular Biology, Clinical Research, Reproductive Biology, Food Science and Human Nutrition, Chemistry, Molecular Biosciences and Engineering, Neuroscience and Mathematics.
- Annually provides CURE and Meiji cancer research summer internship programs to 25 minority undergraduate and high school students. Since 2005, one-third of trainees later receive an advanced degree and >40% state pursue careers in cancer research.
- The Center has provided a workshop on biomedical research to over 30 science teachers from the Hawai‘i Science Teachers Association (HaSTA) since 2011.

Gertraud Maskarinec, MD, PhD <gertraud@cc.hawaii.edu>
Academy for Creative Media, UHM

The Academy of Creative Media at Mānoa is the only film school in Hawai‘i. Our students master cinematic narrative theories, skills and application across multiple platforms of digital media and within a context of cultural and aesthetic values to give voice to their own stories.

- Mandated to create a synthesis between the university and local film industry, ACM fosters robust job placement and internship opportunities, placing hundreds of students on Hawaii 5-0, LOST, in feature films, production companies, advertising agencies, and TV. Alumni occupy key positions globally in the creative industries, and are highly sought after by top graduate film schools including USC, NYU, AFI, CalArts, and Chapman
- 120+ students participate in international exchange between ACM Mānoa SMART Exchange program and Shanghai University, producing film co-productions that show in the Shanghai and Hawaii International Film Festivals
- 150+ student-produced short films annually; student and faculty films have won numerous grants and awards in the biggest international film festivals (Sundance, Berlin, Toronto, and Tribeca)
- Faculty and students produce feature films, including the award-winning feature documentary STATE OF ALOHA; GO FOR BROKE, directed by alumni Alexander Bocchieri and co-produced with the 442 Foundation; and a $2.5M production agreement to bring the Marshall Islands story “Until the Dolphin Flies” to the big screen
- Recently inducted into CILECT, (The International Association of Film and Television Schools), a prestigious film school consortium

ACM Mānoa Promo Video: https://vimeo.com/182842354/a91001380e
ACM Student Film Reel: https://vimeo.com/182842565/ec35a2e679

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Department of Natural Resources and Environmental Management (CTAHR)

Natural resources and environmental management (NREM) trains globally-aware professionals in sustainable resource use and environmental management integrating natural and social sciences.

- Extramural funding since 2003 have totalled $14M (163 projects) including over $7 million in support of international programs in Iraq, Albania, Philippines, India, Nepal, Indonesia, Guatemala and Haiti
- Diverse Funding sources include: NRI, NSF, USDA, NOAA, Western SARE Program, USAID, EPA, NASA, Iraq-Kurdistan Regional Government, US Forest Service and various Hawaii State agencies
- NREM faculty currently advise about 100 undergraduate and 50 graduate majors.
- Annually Graduating 20 Undergraduates, 15 Masters, 4 Ph.D.; many students involved in research (14 undergraduate, 32 graduate).
- Statewide extension programs include: sustainable agriculture, water quality, forestry, renewable resources, coastal area protection, agricultural tourism, community economic development, and rapid ʻŌhiʻa death.

Catherine Chan <chanhalb@hawaii.edu>

Assessing runoff from resorts

Studying rising trend in food waste

Catherine Chan <chanhalb@hawaii.edu>
Department of Oceanography (SOEST)

The Department of Oceanography prepares professionals for environmental science-related careers in academia, government, and industry in the areas of ocean, earth, atmospheric, and environmental science.

- Research opportunities for both graduate and undergraduate students with internationally-recognized researchers provide access to a world-class diversity of ocean, earth, and climate science projects which lead to employment opportunities.
- UHM Oceanography ranks 5th in federal funding rate for ocean and climate sciences out of 125 peer units nationwide (UH-VPRI Planning Roadmap)
- Advise and mentor 146 graduate and undergraduate students and postdoctoral researchers
- Oceanography program involves collaboration among 70+ faculty drawn from the department, cooperating and affiliate members (with homes in other departments)
- Global Environmental Studies BS program combines active-learning techniques with exciting laboratory and field research opportunities to prepare our graduates for the 21st century STEM workforce.

Brian Glazer <glazer@hawaii.edu>

Some of the opportunities available to students in (clockwise from top left): sea-level and chemical monitoring, long-term partnerships with Paepae o He‘eia fishpond, sustainability studies, coral reef heath and ecology, environmental monitoring systems and measurements, and world-class research expeditions.
Department of Psychology (College of Social Sciences)

The Department of Psychology trains undergraduate and graduate students to understand the role of the mind and behavior in physical, cognitive, and social aspects of life, on topics ranging from the cell to culture. We are a liberal arts department with an applied clinical training program, with a focus on using basic science to improve people's lives.

- 353 majors and 311 Psychology pre-majors in two programs: BA and BS in Psychology, and 58 MA and PhD graduate students.
- 87% of faculty mentor undergraduate students in research
- Award-winning research includes: Assistant Professor Jack Barile’s Housing First project won acclaim for his innovative and effective intervention to help improve living conditions for homeless people. Regents’ Medal for Excellence in Research winner Associate Professor Kristin Pauker studies developmental and social psychology in the areas of intergroup attitudes, racial bias, interracial anxiety to understand and decrease racial prejudice.
- Our undergraduates enter the workforce directly in profit and non-profit corporations, mental health settings, administration, teaching, and mentoring, or they acquire further training in psychology, medicine, law, architecture, social work, and other fields.

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