

BRIAN T. YAMAMOTO

Title: Natural Science Professor
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EDUCATION

Institute	Degree/Certificate	Year Conferred	Field of Study
Kapa‘a High School	H.S. Diploma	1975	--
University of Hawai‘i Mānoa	B.A.	1979	Botany, High Honors
University of Hawai‘i Mānoa	M.S.	1981	Botanical Sciences (Plant Pathology)

EXPERIENCE

Professor, Natural Sciences	2007 – Present
Chairperson, Science and Math Division	2014 – 2017
International Education Chairperson	1997 – 2012 2017-Present
Associate Professor, Natural Sciences	1997 – 2007
Enrollment Management Committee	1998 – 2001
Assistant Professor, Natural Sciences	1992 – 1997
Natural Science Instructor	1982 – 1992

- Develop, teach, and evaluate course in botany, horticulture, and microbiology, biological science and articulate these course with other community colleges and UH Mānoa.
- Serve as liaison between Kaua‘i Community College and the National Tropical Botanical Garden.
- Serve on Chancellor’s Committee on Associate in Arts Degree.
- Member of Natural Science Division and other divisions’ screening and selection committees and peer evaluation committees.
- Develop budget allocation and requests for botany, horticulture, agriculture, greenhouse, arboretum and microbiology.
- Maintain microbiological preparation room.
- Advise grounds and maintenance staff on campus landscaping.
- Expand, repair, and maintain campus greenhouse and arboretum.

- Advise in safe chemical storage and advise and institute programmed disposal of hazardous waste.

AWARDS

- University of Hawai‘i Board of Regents Excellence in Teaching Award, 1988
- Kenan Fellow, 2001, 2002
- Francis Davis Award in Excellence for Undergraduate Teaching 2003
- Merit Award, Okinawa Prefectural College of Nursing 2008, International Education
- Fine Gigapan Fellow, Carnegie Mellon University, 2009, 2011
- Science fellow Toyama College of Technology 2014,2016
- 50 th Anniversary Recognition for Community Colleges Education 2015

OTHER ACCOMPLISHMENTS

- Developed Kaua‘i Community College Native Plant Propagation Center.
- Developed plant micropropagation laboratory facilities for endangered species restoration.
- Guest lectured on radio with William Kikuchi and Bud Carter on plant and animal migration to the Pacific.
- Guest lectured on Cable TV with Mike Kido in AG 017 (Home Gardening), Plant Disease, and Pest Control.
- Developed PLATO program “Enterotube” for identification of Gram – Enteric bacteria used in Microbiology 140 for diagnostics.
- Operate Plant Micropropagation Laboratory.
- Endangered plant species propagation and restoration partnership with National Tropical Botanical Garden, Kaua‘i Wildlife Refuge, and Lyon Arboretum.
- K-12 Kenan Fellowship for high school and middle school teachers to incorporate Tropical Botany into their science curriculum.
- Kenan Fellowship infused into university undergraduate science curriculum in Tropical Botany.
- Taught Summer K-12 Program in partnership with the National Tropical Botanical Garden.
- Coordinated International Education Programs – University of Ryukyus, Okinawa Christian Jr. College, Chiba Keizai College, Okinawa Prefectural College of Nursing.
- Panel Member – 1st Center for Excellence Conference on Reef Ecosystems and Island Biodiversity; University of Ryukyus, Okinawa.
- Conference Speaker – The future of living things in Okinawa, addressing environmental problems on islands of rich biodiversity; University of Ryukyus, Okinawa.
- Participated in National Ethnobotanical Summit 2007. Developed white paper declaration.
- Teach Science Teacher Enrichment Program for high school and middle school teachers from Kaua‘i and nationally, 2001 to present. National Tropical Botanical Garden.

- English language high school exchange program between Kauaʻi and Ishigaki Island.

TEACHING EXPERIENCE

BEGINNING BOTANY

This introduction to basic botanical principles includes the anatomy, morphology, physiology, evaluation, life cycles, ecology, and genetics of seed plants. Principles of molecular and cellular biology, non-technical plant identification, and plant propagation are also studied. The laboratory is part of the class.

GENERAL BOTANY

This course covers the structure, growth, function, and evolution of plants and their relationship to the environment and human activities. The laboratory is part of the class.

ETHNOBOTANY

Students explore plants and their influence upon the culture of Hawaiʻi, Pacific and Okinawa. Uses of cultivated and wild plants are examined.

GENERAL MICROBIOLOGY

This introductory course is oriented toward medical microbiology and the study of microorganisms with emphasis on bacteria. It includes microbial metabolism, genetics, immunology, selected topics in applied microbiology, viruses, antibiotics, and microbial diseases.

MICROBIOLOGY LABORATORY

This course provides laboratory exercise that illustrates fundamental principles of microbiology. The class is primarily for students in health sciences.

INTRODUCTION TO SCIENCE: BIOLOGICAL SCIENCE

This general introduction to the basic concepts of biology is intended to provide the non-science majors with a basic understanding of their own bodies and the environment in which they live.

INTRODUCTION TO SCIENCE LABORATORY: BIOLOGICAL SCIENCE

This laboratory science course is designed to accompany Introduction to Science: Biological Science.

PLANTS IN THE HAWAIIAN ENVIRONMENT

Introduction to the biological sciences demonstrated through the study of the evolution of plant species and communities of the Hawaiian Islands. The course will include the study of ecological interactions, human impact on the environment, observational skills and scientific inquiry, plant structure and form in relation to function, and the identification and systematics of native and introduced flora.

PLANTS IN THE HAWAIIAN ENVIRONMENT LABORATORY

The course is a “hands-on,” experiential approach to the biological sciences. This course will involve students in specific application of lecture materials and concepts through scientific inquiry and field observations. Field trips are included.

SCIENCE TEACHERS ENRICHMENT PROGRAM(STEP)

Course is a hands on two week class taught in partnership with the University of Hawaii Outreach and National Tropical Botanical Garden for Teachers in Middle and High school. The course is focus on the Botany and Biology of Kauai as a teaching tool

NEW COURSE

- Field Biology: Island Ecosystems

Oceanic island communities in the Pacific, such as Hawai‘i, offer a unique and exciting environmental setting for a hands-on experiential field biology course. This course will provide students with an opportunity to perform standardized tests and field research techniques to collect current data on specific island ecosystems. Students will learn to analyze the data and relate the information they have acquired to the diversity and health of the ecosystem, gaining a greater understanding and appreciation of the changing and fragile nature of island communities.

CURRENT GRANTS/RESEARCH

- Title III Grant Native Hawaiian – Serving Institutions Programs, 2000-2005

Developed curriculum for the infusion of Hawaiian values into science courses to improve the success of native Hawaiian students in science.

- USDA Grant Diversified Agriculture/Entrepreneurship Curriculum Development, 2001-2002

Developed courses in specialized topic’s for the agricultural community.
Researched on the production of maile and mokihana.

- Agriforestry Curriculum Development/Program Initiation on Kaua‘i, 2002-2005
NSF – ATE Agroforestry Grant

- Service Learning Grant – Campus Compact, 2005

- STEM (Science, Technology, Engineering, Mathematics)/MSP (Math-Science Partnership) – Coordinated grant to high schools. Developed place-based, hands-on experiential learning opportunities and research projects, 2007 – present
- STEM Title III Grant Cognition Learning Center/CogsGo 2014-present.
- Innovation Center Projects and Programs 2017 to present.

Presentations

- 1.** Educational Partnerships- A History of Successful International Collaborations in Japan. 50th Anniversary presentation National Institute of Technology Toyama College.
- 2.** We are all Island People-Interactions of plants and culture utilizing example from Hawaii and Okinawa. Lecture Okinawa Prefectural College of Nursing 2011.
- 3.** The fate of Living things in Okinawa-Addressing Issues of islands with diverse ecosystems University of Ryukyus Okinawa Japan.2012
- 4.** How many ways do I use thee-Academic Application of GigaPan Technology. Fine International Conference on Gigapixel Imaging. Carnegie Mellon University. [Http://repository.cmu.edu/gigapixel/14](http://repository.cmu.edu/gigapixel/14). 2010.